SCOPE GUIDANCE AND GENERAL NOTES

THE INFRASTRUCTURE PORTION OF THESE DOCUMENTS SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR AND SHALL INCLUDE, BUT NOT BE LIMITED TO,

2.1 TELECOM SPACES

2.1.1 BACKBOARDS 2.2.2 CONDUIT PULL BOXES

2.2.3 RISER SLEEVES

2.2.4 SLEEVES FROM TELECOM SPACES TO CABLE TRAY 2.2.5 SLEEVES THROUGH WALL PARTITIONS ALONG CABLE TRAY ROUTE INCLUDING AIR ZONE/SPACE PARTITIONS

2.2.6 JUNCTION BOXES 2.2.7 FLOOR BOXES, AS SPECIFIED BY ELECTRICAL OR AUDIOVISUAL

2.2.8 SITE WORK, DUCTBANK AND INNERDUCT FOR CAMPUS DISTRIBUTION

2.2.9 INTERIOR INNERDUCT 2.2.10BONDING AND GROUNDING CONDUIT AND RACEWAY TO GROUND BUS

THE CABLING PORTION OF THESE DOCUMENTS SHALL BE PROVIDED AND INSTALLED BY THE COMMUNICATIONS CABLING CONTRACTOR AND SHALL INCLUDE, BUT NOT BE LIMITED TO. THE FOLLOWING:

3.1 TELECOM SPACES

3.1.1 TELECOM RELAY RACKS AND EQUIPMENT CABINETS 3.1.2 CABLE RUNWAY AND TRAY IN TELECOM ROOMS

3.1.3 PATCH PANELS

3.1.4 TERMINATION BLOCKS

3.1.5 VERTICAL AND HORIZONTAL CABLING MANAGEMENT 3.1.6 BONDING AND GROUNDING OF EQUIPMENT TO GROUND BUS (AS PROVIDED BY ELECTRICAL PORTION)

3.2 CABLING AND CONNECTIVITY

3.2.1 ALL COPPER AND FIBER CABLING PATCH CORDS

3.2.2 ALL COPPER AND FIBER CONNECTORS AND JACKS

3.2.4 ALL DATA CABLING REQUIRED TO SUPPORT SECURITY AND ACCESS CONTROL INFRASTRUCTURE. (CAMERAS, CARD READERS, MEDIA CONVERTERS, ETC.) 3.2.5 WORKSTATION FACEPLATES

3.2.6 CONSOLIDATION POINTS

3.2.7 EXTERIOR/OUTSIDE PLANT CABLING, INCLUDING TERMINATIONS AND TESTING.

3.3 INTERIOR & EXTERIOR PATHWAYS 3.3.1 SEALING OF TELECOM CONDUITS AND SLEEVES

3.2.3 ALL COPPER AND FIBER TERMINATIONS

3.4 WIRELESS ACCESS POINTS

3.4.1 WIRELESS ACCESS POINTS SHALL BE OWNER FURNISED, CONTRACTOR INSTALLED

3.4.2 ASSUME THAT WIRELESS ACCESS POINTS WILL BE PROVIDED WITH STANDARD MOUNTING ACCESSORIES ONLY. ANY SPECIAL MOUNTING EQUIPMENT, FITTINGS OR

ACCESSORIES SHALL BE PROVIDED BY THE CONTRACTOR. 3.4.3 CONTRACTOR TO PROVIDE MOCK-UP INSTALLATION PRIOR TO ROUGH-IN OF UNITS TO BE INSTALLED IN EACH CEILING INSTALLATION TYPE.

3.4.4 CONTRACTOR SHALL REVIEW INSTALLATION ON ALL CEILING TYPES WITH OWNER PRIOR TO ROUGH-IN

3.4.5 CONTRACTOR TO PROVIDE ALL PATCH CORDS, LABELING, AND AS-BUIT DOCUMENTATION 3.4.6 CONTRACTOR TO SUBMIT FOR APPROVAL ANY DIVIATIONS FROM THE DETAILS INCLUDED IN THESE DESIGN DOCUMENTS.

4. THE CONTRACTOR RESPONSIBLE FOR THE ELECTRICAL PORTION SHALL PROVIDE AND INSTALL ALL INCIDENTAL EQUIPMENT AND MATERIALS RELATED TO THEIR WORK AND REQURED BY THE COMMUNICATIONS CABLING DOCUMENTS. FOR EXAMPLE, INSULATING BUSHINGS FOR CONDUIT ENDA SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

5. THE CONTRACTOR RESPONSIBLE FOR THE CABLING PORTION SHALL PROVIDE AND INSTALL ALL INCIDENTAL EQUIPMENT AND MATERAILS RELATED TO THEIR WORK AND REQUIRED BY THE COMMUNICATION CABLING DOCUMENTS. FOR EXAMPLE, CABLE TIES NECESSARY FOR CABLE MANAGMENT SHALL BE PROVIDED BY THE CABLING CONTRACTOR

6. FOR THE INFRASTRUCRE PORTION, ANY AND ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS REQUIRED BY FIELD CONDITIONS SHALL BE RESOLVED THROUGH THE RFI

(REQUEST FOR INFORMATION) PROCESS TO AVOID INADEQUATE OR INCORRECT INFRASTRUCTURE FOR USE BY THE CABLING CONTRACTOR. 7. THE CABLING CONTRACTOR SHALL NOTE THAT SECURITY DRAWINGS REQUIRE CABLING TO BE RUN BY THE STRUCTURED CABLING CONTRACTOR.

8. CONDUITS AND OTHER RACEWAYS USED FOR ANY PURPOSE, INCLUDING WIRING AND CABLING FOR BUILDING WITHIN ARCHITECTURAL SHAFTS AND ENCLOSURES INDICATED

THE CONTRACTOR SHALL COORDINATE ROUTING OF RACEWAY WITHIN CONCRETE SLABS, BEAMS, AND COLUMNS WITH THE SUBCONTRACTORS. RACEWAY CONCEALED IN STRUCTURE SHALL NOT EXCEED 1" DIAMETER AND ROUTING OF SUCH RACEWAY SHALL BE MODIFIED TO COMPLY WITH THE CONCEALMENT AND SPACING REQUIRMENTS INDICATED ON THE STRUCTURAL DRAWINGS. RACEWAY SHALL NOT BE VISIBLE FROM THE FINISHED SPACE.

9. PROVIDE A PROPERLY SIZED PULLBOX IN CONDUIT PATHWAYS WHERE CONDUIT WOULD EXCEED 100' OF CONTINUOUS PATHWAY OR 180 DEGREES OF BEND BETWEEN

PULLBOXES OR THE ENDS OF THE CONDUIT PATHWAY.

INFORMACAST SPEAKER NOTES

I. THE INFORMACAST FUSION SYSTEM IS CURRENTLY IN USE THROUGHOUT NEW HANOVER COUNTY. ALL SPEAKERS INDICATED ON THESE DRAWINGS ARE ADDITIONAL END DEVICES THAT WILL BE INTEGRATED INTO THE EXISTING INFORMACAST FUSION SYSTEM.

2. AT ALL SPEAKER LOCATIONS AS INDICATED ON THE FLOOR PLANS, CONTRACTOR SHALL FURNISH AND INSTALL AN 8" ROUND INFORMACAST-COMPLIANT CEILING SPEAKER (VALCOM #VIP-120A-IC) WITH TILE BRIDGE (VALCOM #V-9916M).

. CONTRACTOR SHALL FURNISH AND INSTALL A CATEGORY-6 PATCH CORD, AND CONNECT THE PATCH CORD BETWEEN THE INFORMACAST SPEAKER TO THE BISCUIT JACK IN THE CEILING. PATCHES IN THE TELECOMMUNICATIONS ROOMS TO THE POE-ENABLED NETWORK SWITCH WILL BE PERFORMED BY THE OWNER.

ADDITIONAL LICENSES FOR EACH END DEVICE (INFORMACAST SPEAKERS) SHALL BE PROVIDED BY THE CONTRACTOR. CONTACT BRAD JUNGEMANN AT SINGLEWIRE SOFTWARE AT 608-441-1286 OR BRAD.JUNGEMANN@SINGLEWIRE.COM FOR PRICING

INFORMATION.

SERVER ROOM EQUIPMENT

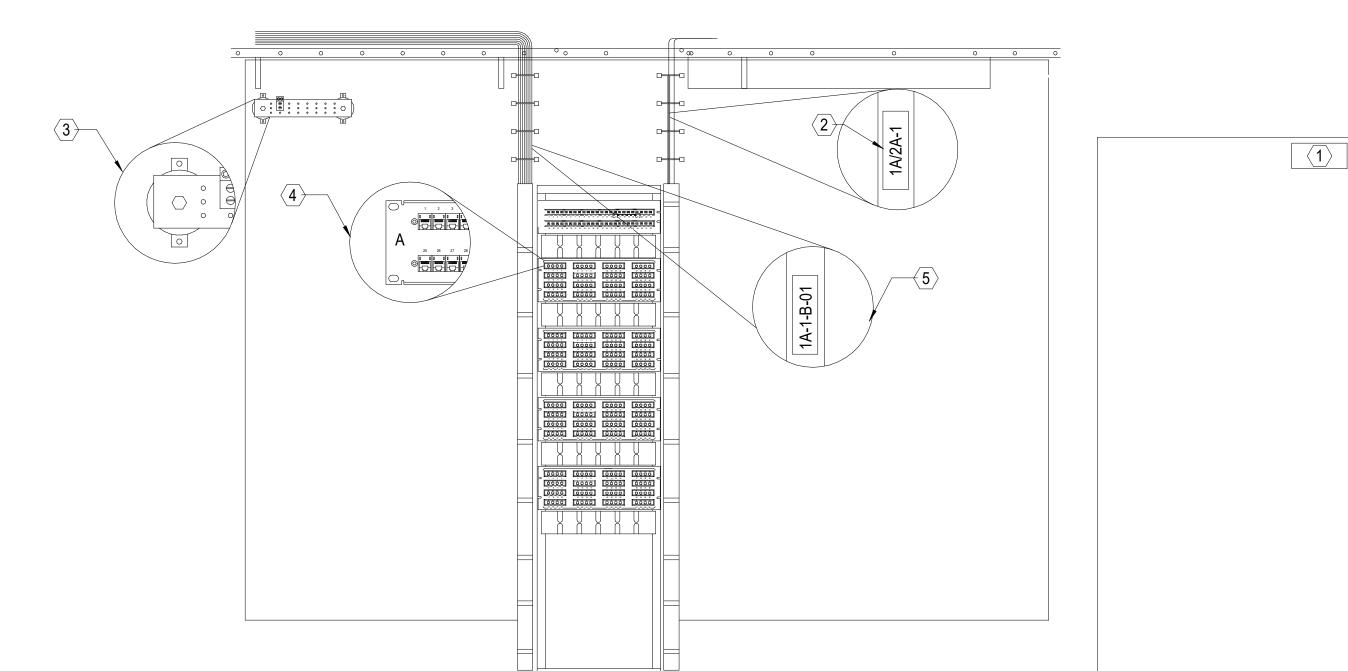
SERVER ROOM EQUIPMENT PROVIDED AS PART OF CUSTOMIZED SOLUTION THAT INCLUDES CABINETS, TERMINATION ACCESSORIES, CABLE MANAGEMENT, HOT AISLE CONTAINMENT, UPS AND BATTERY CABINET AS WELL AS OTHER HARDWARE AND ACCESSORIES. APC QUOTE/PART NUMBER ISX0001852536-0005

SOLUTION NUMBER: ISX0001852536-0005 **DESIGN NAME: ISXD DESIGN 1 DESIGN NOTES FOR ISXD DESIGN 1**

JIMMY JACK - TEL: 803 833 3046

JJACK@CRITICALCOMPONENTS.NET

FOR MORE INFORMATION SEE BOM MATERIALS FILE INCLUDED WITH THE TELECOM DRAAWINGS OR/AND CONTACT APC REPRESENTATIVE :



OUTLET ROUGH-IN AND CABLING REQUIREMENT MATRIX

DRAWING SYMBOL	NAME	BACKBOX SIZE	MOUNTING HEIGHT AFF	CONDUIT SIZE	FACEPLATE TYPE	TERMINATION ⁻	PORT TYPE QUANTITIES VOICE DATA COAX	CABLING TYPE	CABLING COLOR	JACK COLOR	NOTES	GENERAL NOTES
< #D	UNIVERSAL DATA OUTLET	2G	18"	1"	SINGLE GANG 2-PORT	RJ-45	#	CAT 6	BLUE	BLUE	# INDICATED ON FLOOR PLANS REPRESENTS QUANTITY OF DATA CABLE DROPS REQUIRED	1. ALL INFORMATION IS TYPICAL AS INDICATED IN THIS MATRIX UNLESS OTHERWISE NOTED ELSEWHERE. 2. ALL OUTLETS SHALL BE LOCATED ADJACENT TO POWER RECEPTACLES WHERE APPLICABLE. 3. FINAL HEIGHT AND MOUNTING LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS. 4. ALL OUTLET CONDUITS SHALL BE ROUTEI TO THE NEAREST ACCESSIBLE CEILING SPACE IN THE CORRIDOR, UON. 5. PROVIDE BLANK MODULES FOR ALL UNUSED PORTS. 6. REAM AND BUSH ALL CONDUIT ENDS. 7. PROVIDE SINGLE GANG PLASTER RING FOR DOUBLE GANG BOXES WITH SINGLE GANG FACEPLATES. 8. PROVIDE DOUBLE GANG BOXES WITH DOUBLE GANG FACEPLATES. 9. REFER TO FACEPLATE DETAILS FOR OUTLET PORT CONFIGURATION
∜ _{#D}	UNIVERSAL DATA OUTLET - ABOVE COUNTER	2G	SEE NOTE	1"	SINGLE GANG 2-PORT	RJ-45	#	CAT 6	BLUE	BLUE	MOUNT AT 8"-12" ABOVE COUNTER TOP. COORDINATE WITH ELECTRICAL. # INDICATED ON FLOOR PLANS REPRESENTS QUANTITY OF DATA CABLE DROPS REQUIRED.	
⋖ _W	STANDARD WALL PHONE OUTLET	1G	48"	1"	WALL PHONE FACEPLATE	RJ-45	1	CAT 6	BLUE	BLUE		
\triangleleft DP	AV DISPLAY OUTLET	SEE NOTE	PER ARCH. ELEVATIONS	1"	SINGLE GANG 4-PORT	RJ-45/F-TYPE	2 1	CAT 6	BLUE	BLUE	FURNISH AND INSTALL RECESSED BACKBOX PER DETAIL 1 /T-501.	
BA	POKE THRU - MODULAR FURNITURE INFEED	NA	FLOOR	1.5"	SEE DETAIL	RJ-45	2 PER SEAT	CAT 6	BLUE	BLUE	SEE DETAIL 2 ON SHEET T-501 FOR MORE INFORMATION.	
P _B	POKE THRU - SHARED DATA / ELECTRICAL	NA	FLOOR	1.25"	DATA ADAPTER PLATE	RJ-45	2	CAT 6	BLUE	BLUE	TERMINATE DATA CABLLES IN POKE-THRU. COORDINATE WITH ELECTRICAL.	
P	FLOOR BOX WITH UNIVERSAL DATA OUTLET	NA	FLOOR	1.25"	4-PORT INSERT	RJ-45	2	CAT 6	BLUE	BLUE	REFER TO ELECTRICAL DETAIL SHEET. ROUTE DATA CABLES TO DESK AS INDICATED.	
C FB	POKE THRU - SHARED AV DATA / ELECTRICAL	NA	FLOOR	1.25"	DATA ADAPTER PLATE	RJ-45	2	CAT 6	BLUE	BLUE	TERMINATE DATA CABLLES IN POKE-THRU. COORDINATE WITH ELECTRICAL.	
○ _{AP}	UNIVERSAL DATA OUTLET FOR WIRELESS ACCESS POINT	NA	CEILING	1"	2-PORT BISCUIT BOX	RJ-45	2	CAT 6A	BLUE	BLUE	SEE DETAIL X ON SHEET T-501 FOR MORE INFORMATION. ACCESS POINT TO BE PROVIDED BY OWNER. COORDINATE EXACT LOCATION WITH VENDOR/OWNER PRIOR TO INSTALLATION.	
S	UNIVERSAL DATA OUTLET FOR INFORMACAST SPEAKER	NA	CEILING	1"	2-PORT BISCUIT BOX	RJ-45	1	CAT 6	BLUE	BLUE	CONTRACTOR TO FURNISH AND INSTALL ALL INFORMACAST SPEAKERS AND ASSOCIATED HARDWARE. SEE INFORMACAST SPEAKER NOTES.	
PRJ	PROJECTOR OUTLET	NA	CEILING	1"	2-PORT BISCUIT BOX	RJ-45	1	CAT 6	BLUE	BLUE		
	MODULAR FURNITURE OUTLET(S)	NA	SEE NOTE	NA	2-PORT INSERT	RJ-45	2	CAT 6	BLUE	BLUE	COORDINATE WITH FURNITURE MANUFACTURER PRIOR TO INSTALLATION. PROVIDE A 1.5" FLEX CONDUIT BETWEEN FURNITURE AND WALL. SEE DETAIL X ON SHEET T-501.	
	WALL FED MODULAR FURNITURE OUTLET(S)	NA	SEE NOTE	1.25"	2-PORT INSERT	RJ-45	1	CAT 6	BLUE	BLUE	COORDINATE WITH FURNITURE MANUFACTURER PRIOR TO INSTALLATION. PROVIDE A 1.25" FLEX CONDUIT BETWEEN FURNITURE AND WALL.	
	VIDEO SURVEILLANCE CAMERA (OWNER FURNISHED)	2G	AS NOTED	SEE FLOOR PLANS	1-PORT BISCUIT BOX	RJ-45	1	CAT-6	BLUE	BLUE	CAT-6 FOR INDOOR OR BUILDING ATTACHED CAMERAS. HYBRID CABLING FOR SITE CAMERAS.	

STANDARD ABBREVIATIONS

AFC/AFF/AFG/ARF - ABOVE FINISHED CEILING/FLOOR/GRADE/RAISED FLOOR

AP - ACCESS POINT ARCH - ARCHITECT/ARCHITECTURAL BCKBD - BACKBOARD **BFC - BELOW FINISHED CEILING** C - CONDUIT

CONN - CONNECTION CKT - CIRCUIT CLG - CEILING

EC - ELECTRICAL CONTRACTOR EMT - ELECTRICAL METALLIC TUBING EQUIP - EQUIPMENT

F - FIBER FA - FIRE ALARM **FOC - FIBER OPTIC CABLING**

G - GROUND HC - HORIZONTAL CROSS-CONNECT IDC - INSTALLATION DISPLACEMENT CONNECTOR

IDS - INTRUSION DETECTION SYSTEM JB - JUNCTION BOX MM - MULTI-MODE

EXIST - EXISTING

MTD - MOUNTED NIC - NOT IN CONTRACT

NTS - NOT TO SCALE OC - ON CENTER OFCI - OWNER FURNISHED, CONTRACTOR INSTALLED

OSP - OUTSIDE PLANT PNL - PANEL PR - PAIR **SPEC - SPECIFICATION**

RR - RISER RATED SM - SINGLE MODE ST - STRAND

XFMR - TRANSFORMER

SW - SWITCH TGB - TELECOM GROUNDING BUS BAR TMGB - TELECOM MAIN GROUNDING BUS BAR WP - WEATHERPROOF

UON - UNLESS OTHERWISE NOTED

LOW VOLTAGE SYMBOLS LEGEND

LADDER TYPE TELECOMMUNICATIONS RUNWAY (SIZE AS NOTED ON ENLARGED PLANS)

BASKET-TYPE CABLE TRAY.

J-HOOK DIAGRAMMATIC CABLING PATHWAY. J-HOOKS SHALL BE INSTALLED EVERY 5FT MINIMUM.

2-POST TELECOMMUNICATIONS RACK WITH REQUIRED CLEARANCES.

4-POST TELECOMMUNICATIONS RACK.

TELECOMMUNICATIONS SERVER RACK.

DOUBLE SIDED VERTICAL CABLE MANAGER. SIZE INDICATED ON FLOOR PLANS.

TELECOMMUNICATIONS GROUND BUS BAR.

FLOOR OUTLET, REFER TO ROUGH IN MATRIX FOR ADDITIONAL INFORMATION.

CEILING OUTLET, REFER TO ROUGH IN MATRIX FOR ADDITIONAL INFORMATION.

WALL OUTLET, REFER TO ROUGH IN MATRIX FOR ADDITIONAL INFORMATION.

LABELING REQUIREMENTS - ANSI-TIA 606-C

EQUIPMENT LOCATION AND SIZE ARE OUT OF SCALE FOR CLARITY. PORTIONS OF CABLE MANAGEMENT NOT SHOWN FOR CLARITY.

ROOM IDENTIFIER - PROVIDE A PLASTIC ENGRAVED LABEL WITH TEXT 2" HIGH. FORMAT SHALL BE "#####"-WHERE ##### REPRESENTS THE ROOM NUMBER OF THE TELECOMMUNICATIONS

FOR EXAMPLE : A1020 = AMENITIES BUILDING FLOOR TELECOM ROOM

A2020 ON THE SECOND FLOOR.

BACKBONE CABLE - PROVIDE A MACHINE PRINTED LABEL SECURED WITH SHRINK WRAP TO EACH BACKBONE CABLE. FORMAT SHALL BE "####1/####2 - N" WHERE ####1 IS THE ORIGINATION TS AND ####2 IS THE TERMINATION TS AND N IS THE

FOR EXAMPLE: "A1020/A2020-1" = CABLE 1 ROUTED BETWEEN A1020 ON FIRST FLOOR AND

GROUND BUS - PROVIDE A MACHINE PRINTED LABEL PERMANENTLY FIXED TO THE BUS WHERE FS IS THE TS THAT CONTAINS THE TGB.

FOR EXAMPLE: "A1020-TGB" = TELECOM SPACE A1020 TELECOM GROUNDING BUS BAR.

PATCH PANELS - PROVIDE MACHINE PRINTED LABELS PERMANENTLY FIXED TO THE PATCH PANEL. FORMAT SHALL BE "AN" WHERE A IS THE PATCH PANEL ALPHA NUMERIC ID AND N IS THE PATCH PANEL'S PORT NUMBER. FOR EXAMPLE "A07" = PATCH PANEL A PORT POSITION 07

HORIZONTAL CABLE - PROVIDE MACHINE PRINTED LABEL SECURED WITH SHRINK WRAP TO EACH END OF EVERY HORIZONTAL CABLE. WHERE THE CABLE IS HOMERUN, FORMAT SHALL "#####-N-A-N". WHERE ##### IS THE TS IDENTIFIER AND N-A-N IS THE TERMINATION LOCATION. FOR EXAMPLE "A1020-1-B-01" = A1020, RACK 1, PATCH PANEL B, PORT 01, WHERE THE CABLE IS RUN TO A CONSOLIDATION POINT, FORMAT SHALL "FS-N-N". WHERE FS IS THE TS IDENTIFIER AND N-N IS THE TERMINATION LOCATION. FOR EXAMPLE "A1020-1-01" = A1020, CONSOLIDATION POINT 1, PORT 01.

Newcomb & Boyd CONSULTANTS AND ENGINEERS Consulting Engineering Group 5425 Page Rd Suite 215 Durham, NC 27703 T 919 783-7812

Contact: Paul J. Kitchens N&B PROJECT: 19N342

Firm License No. F-0312

SHEET NAME: TELECOM LEGEND AND NOTES

SHEET:

Ш 4

CAPE FEAR FD STONEWATER

101 NORTH THIRD STREET, SUITE 500

WILMINGTON, NORTH CAROLINA 28401 TEL. 910.790.3111 FAX. 910.790.9901

WWW.LS3P.COM

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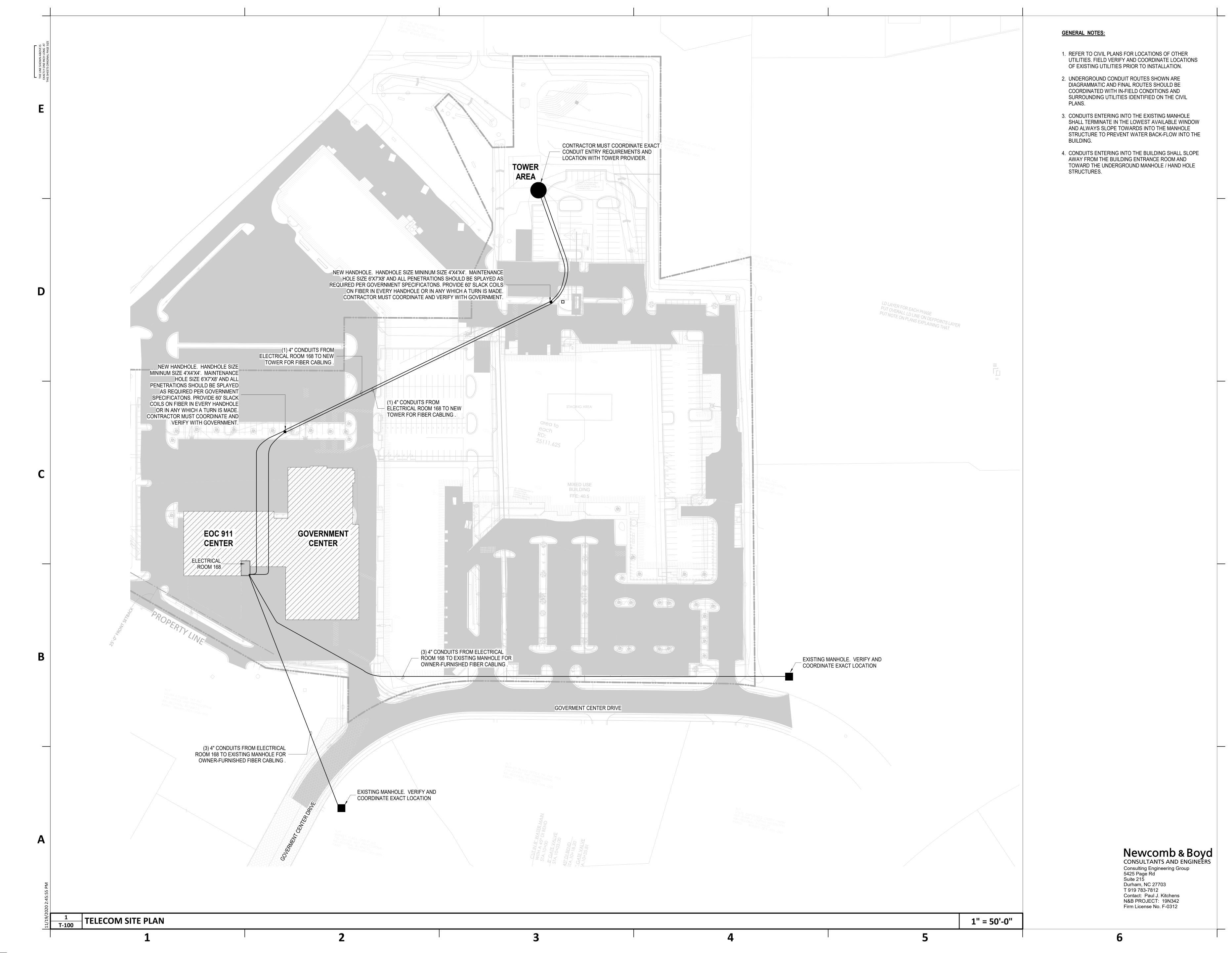
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2020.11.20

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LSJP

CAPE FEAR FD STONEWATER

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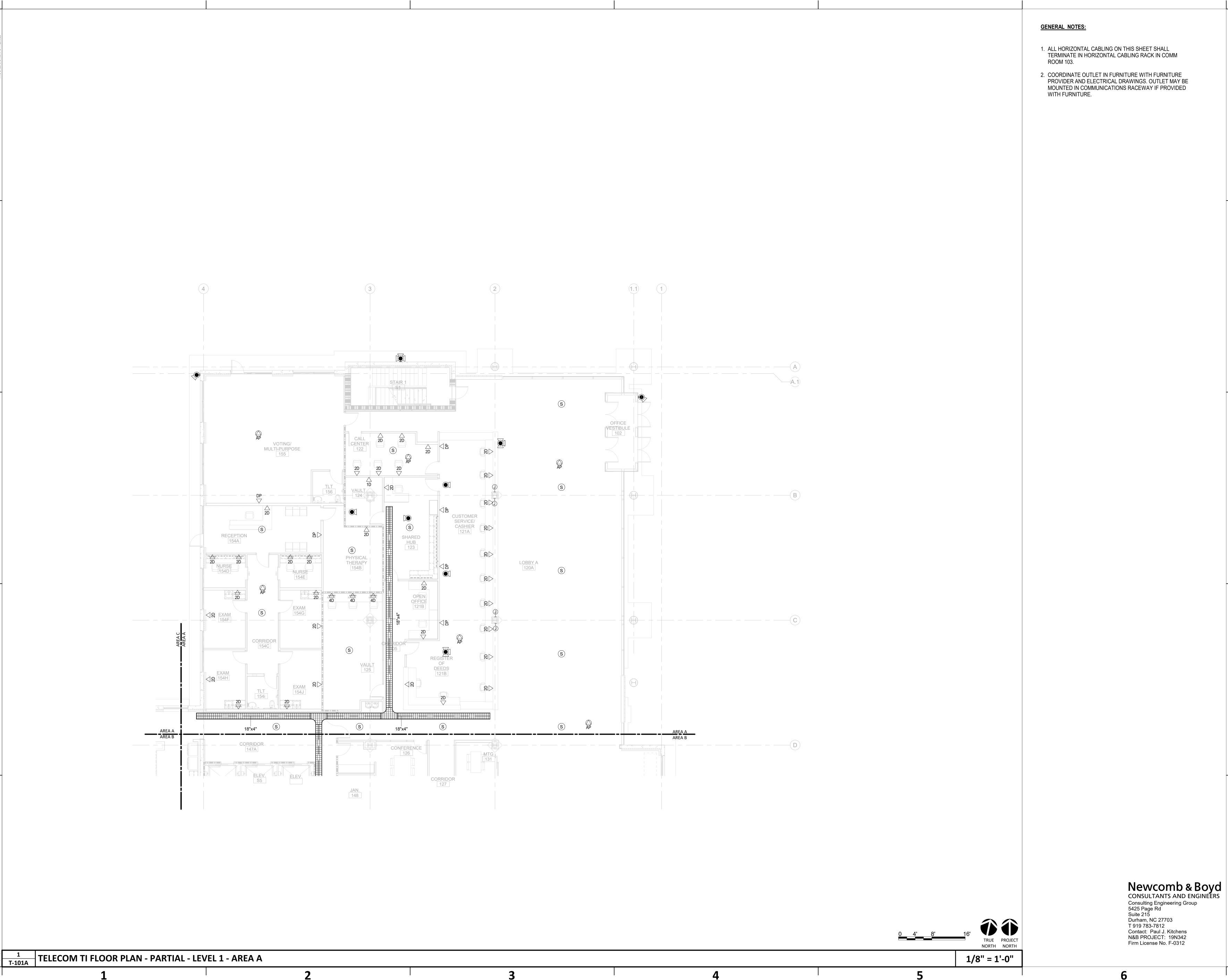
SHEET NAME: TELECOM - SITE PLAN

DATE: CURRENT:

2020.11.20TI GMP SET

SHEET:

T-100



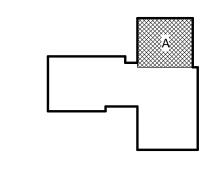
- 1. ALL HORIZONTAL CABLING ON THIS SHEET SHALL TERMINATE IN HORIZONTAL CABLING RACK IN COMM
- 2. COORDINATE OUTLET IN FURNITURE WITH FURNITURE PROVIDER AND ELECTRICAL DRAWINGS. OUTLET MAY BE MOUNTED IN COMMUNICATIONS RACEWAY IF PROVIDED





NHC Goverment Center 7702-190810

KEY PLAN:



SHEET NAME: TELECOM FLOOR PLAN - LEVEL 1 - AREA

DATE: **CURRENT:**

2020.11.20 TI GMP SET

SHEET: **T-101A**

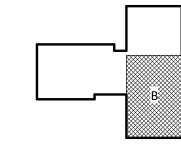


- 1. ALL HORIZONTAL CABLING ON THIS SHEET SHALL TERMINATE IN HORIZONTAL CABLING RACK IN COMM
- 2. COORDINATE OUTLET IN FURNITURE WITH FURNITURE PROVIDER AND ELECTRICAL DRAWINGS. OUTLET MAY BE MOUNTED IN COMMUNICATIONS RACEWAY IF PROVIDED



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KEY PLAN:



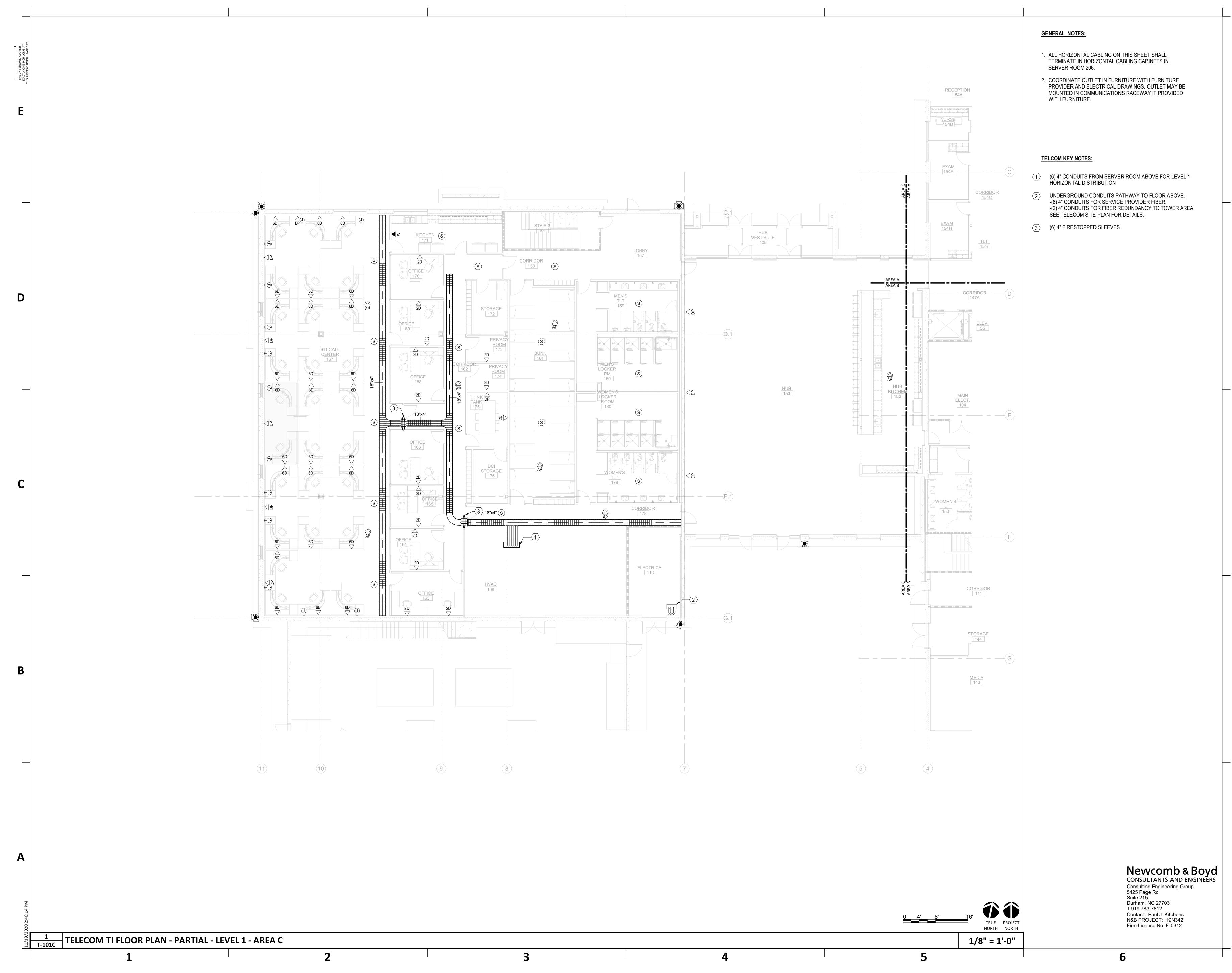
SHEET NAME: TELECOM FLOOR PLAN - LEVEL 1 - AREA

DATE: **CURRENT:**

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SHEET:

T-101B







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COUNTY

VERNMENT C MMENT CENTER DRIVE IGTON, NC 28403

Δ DATE DESCRIPTION

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SHEET NAME:
TELECOM FLOOR
PLAN - LEVEL 1 - AREA

DATE: CURRENT:

KEY PLAN:

2020.11.20TI GMP SET

SHEET:

T-101C

GENERAL NOTES: ROOM 203. WITH FURNITURE. **TELCOM KEY NOTES:** (6) 4" FIRESTOPPED SLEEVES WORKROOM/ STORAGE 247 TELECOM TI FLOOR PLAN - PARTIAL - LEVEL 2 - AREA A 1/8" = 1'-0"

- 1. ALL HORIZONTAL CABLING ON THIS SHEET SHALL TERMINATE IN HORIZONTAL CABLING RACK IN COMM
- 2. COORDINATE OUTLET IN FURNITURE WITH FURNITURE PROVIDER AND ELECTRICAL DRAWINGS. OUTLET MAY BE MOUNTED IN COMMUNICATIONS RACEWAY IF PROVIDED

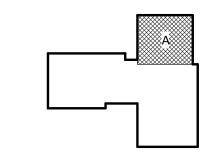


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KEY PLAN:



SHEET NAME: TELECOM FLOOR PLAN - LEVEL 2 - AREA

DATE: **CURRENT:**

2020.11.20 TI GMP SET

SHEET: T-102A

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N&B PROJECT: 19N342
Firm License No. F-0312



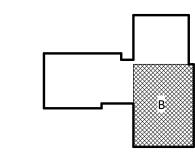
- 1. ALL HORIZONTAL CABLING ON THIS SHEET SHALL TERMINATE IN HORIZONTAL CABLING RACK IN COMM
- 2. COORDINATE OUTLET IN FURNITURE WITH FURNITURE PROVIDER AND ELECTRICAL DRAWINGS. OUTLET MAY BE MOUNTED IN COMMUNICATIONS RACEWAY IF PROVIDED





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KEY PLAN:



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DATE: CURRENT

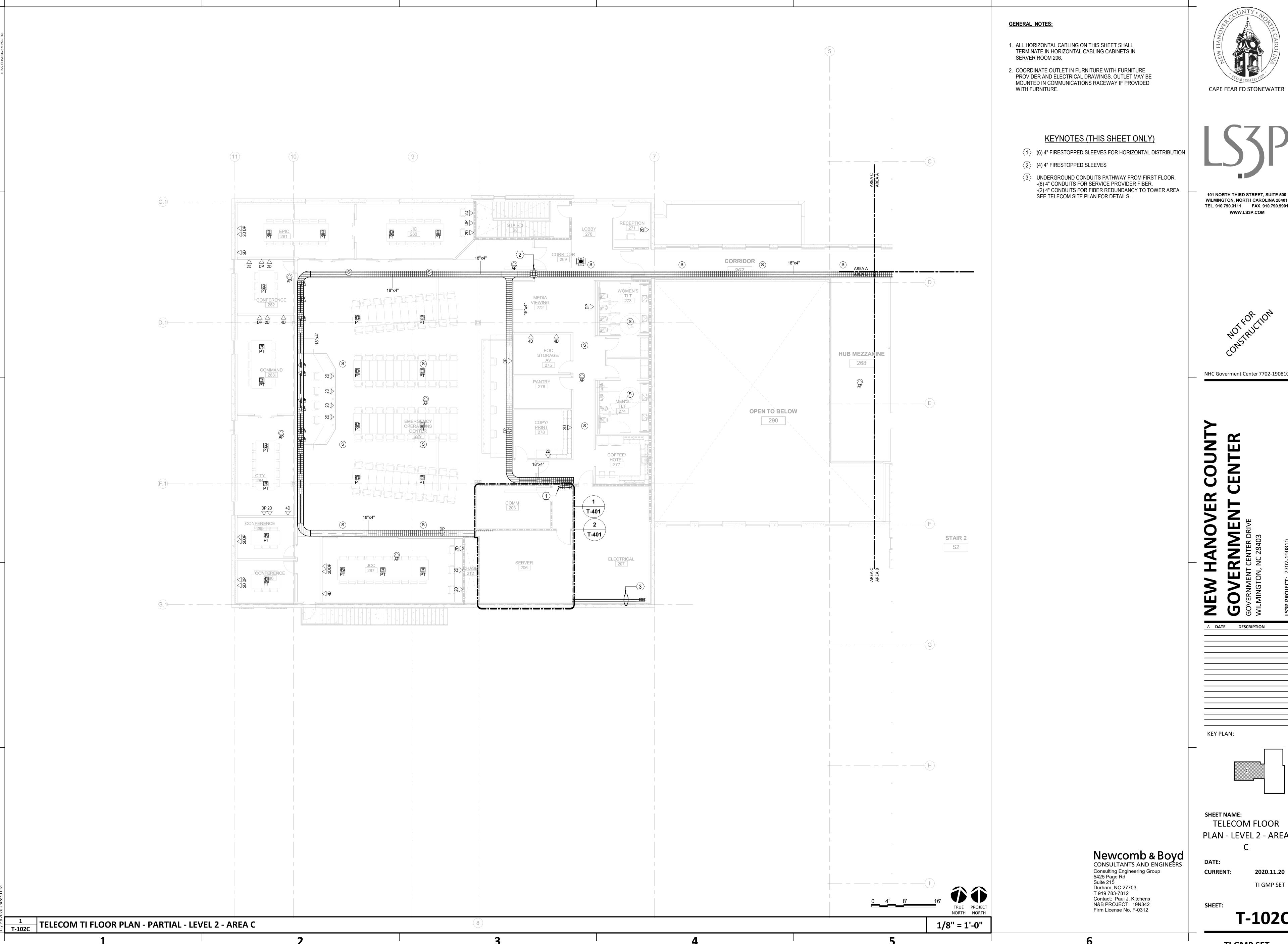
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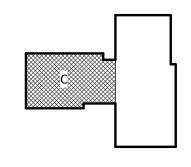
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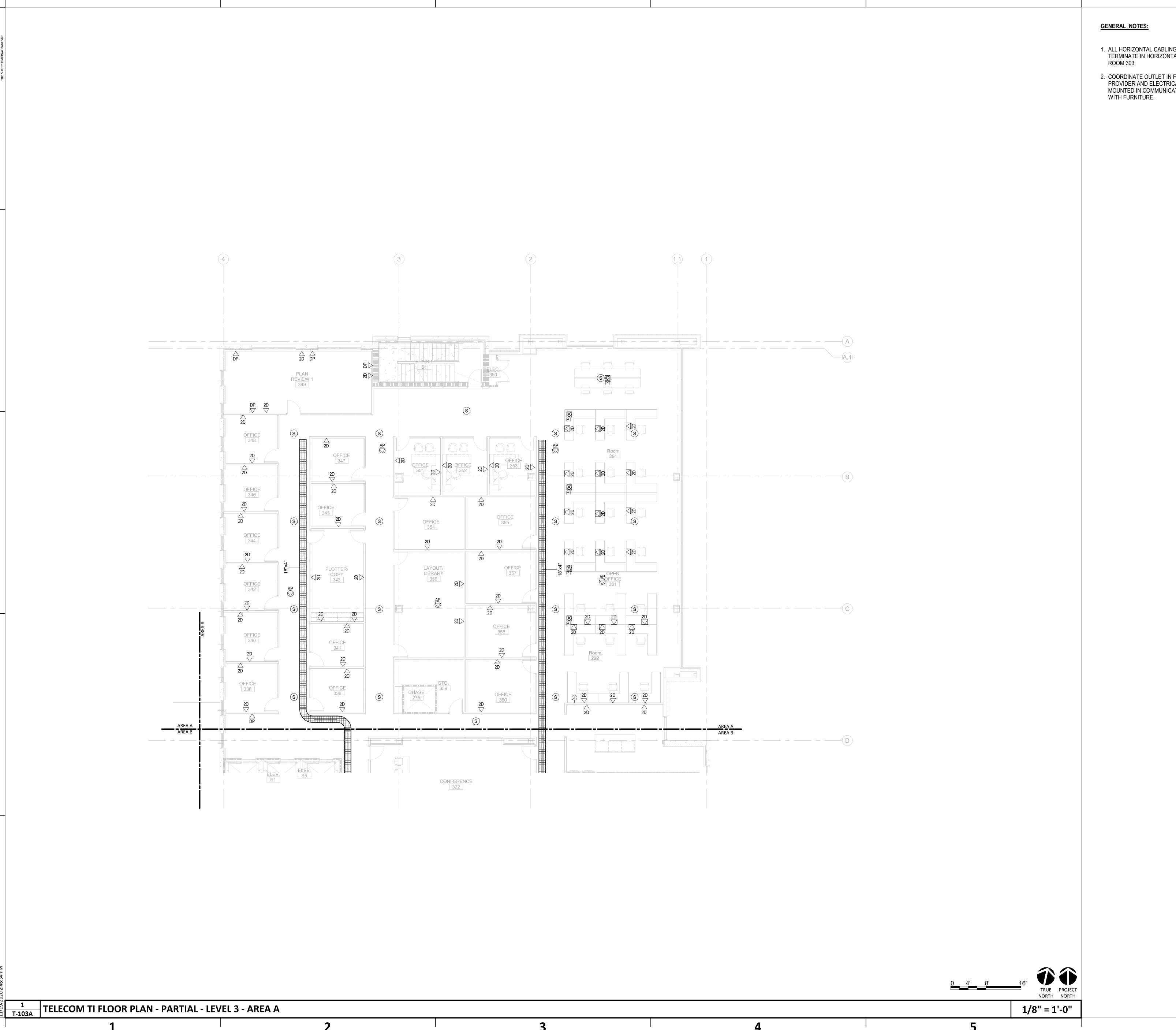
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DATE: **CURRENT:**

2020.11.20 TI GMP SET

SHEET:

T-102C



- 1. ALL HORIZONTAL CABLING ON THIS SHEET SHALL TERMINATE IN HORIZONTAL CABLING RACK IN SERVER
- 2. COORDINATE OUTLET IN FURNITURE WITH FURNITURE PROVIDER AND ELECTRICAL DRAWINGS. OUTLET MAY BE MOUNTED IN COMMUNICATIONS RACEWAY IF PROVIDED

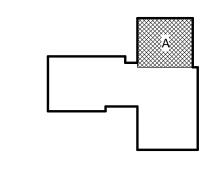






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KEY PLAN:



SHEET NAME: TELECOM FLOOR PLAN - LEVEL 3 - AREA

DATE: **CURRENT:**

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SHEET: T-103A

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N&B PROJECT: 19N342
Firm License No. F-0312



- 1. ALL HORIZONTAL CABLING ON THIS SHEET SHALL TERMINATE IN HORIZONTAL CABLING RACK IN SERVER
- 2. COORDINATE OUTLET IN FURNITURE WITH FURNITURE PROVIDER AND ELECTRICAL DRAWINGS. OUTLET MAY BE MOUNTED IN COMMUNICATIONS RACEWAY IF PROVIDED



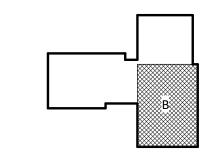




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KEY PLAN:

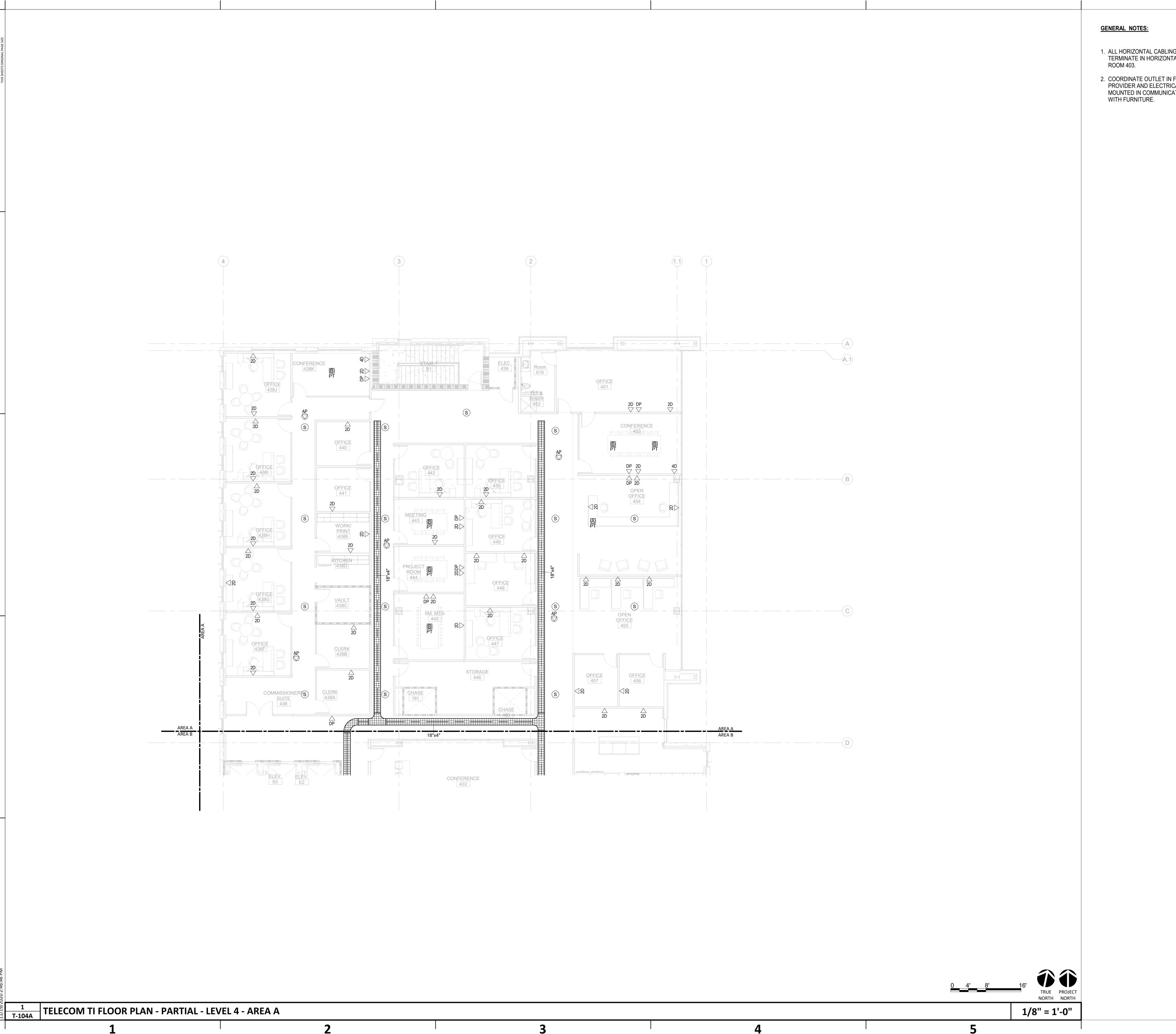


SHEET NAME: TELECOM FLOOR PLAN - LEVEL 3 - AREA

DATE: **CURRENT:**

2020.11.20 TI GMP SET

SHEET: T-103B



- 1. ALL HORIZONTAL CABLING ON THIS SHEET SHALL TERMINATE IN HORIZONTAL CABLING RACK IN SERVER
- 2. COORDINATE OUTLET IN FURNITURE WITH FURNITURE PROVIDER AND ELECTRICAL DRAWINGS. OUTLET MAY BE MOUNTED IN COMMUNICATIONS RACEWAY IF PROVIDED

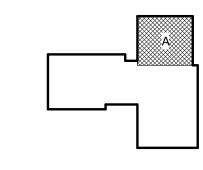






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KEY PLAN:



SHEET NAME: TELECOM FLOOR PLAN - LEVEL 4 - AREA

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SHEET: T-104A



- 1. ALL HORIZONTAL CABLING ON THIS SHEET SHALL TERMINATED IN HORIZONTAL CABLING RACK IN SERVER
- 2. COORDINATE OUTLET IN FURNITURE WITH FURNITURE PROVIDER AND ELECTRICAL DRAWINGS. OUTLET MAY BE MOUNTED IN COMMUNICATIONS RACEWAY IF PROVIDED



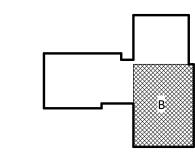




NHC Goverment Center 7702-190810

Δ	DATE	DESCRIPTION

KEY PLAN:



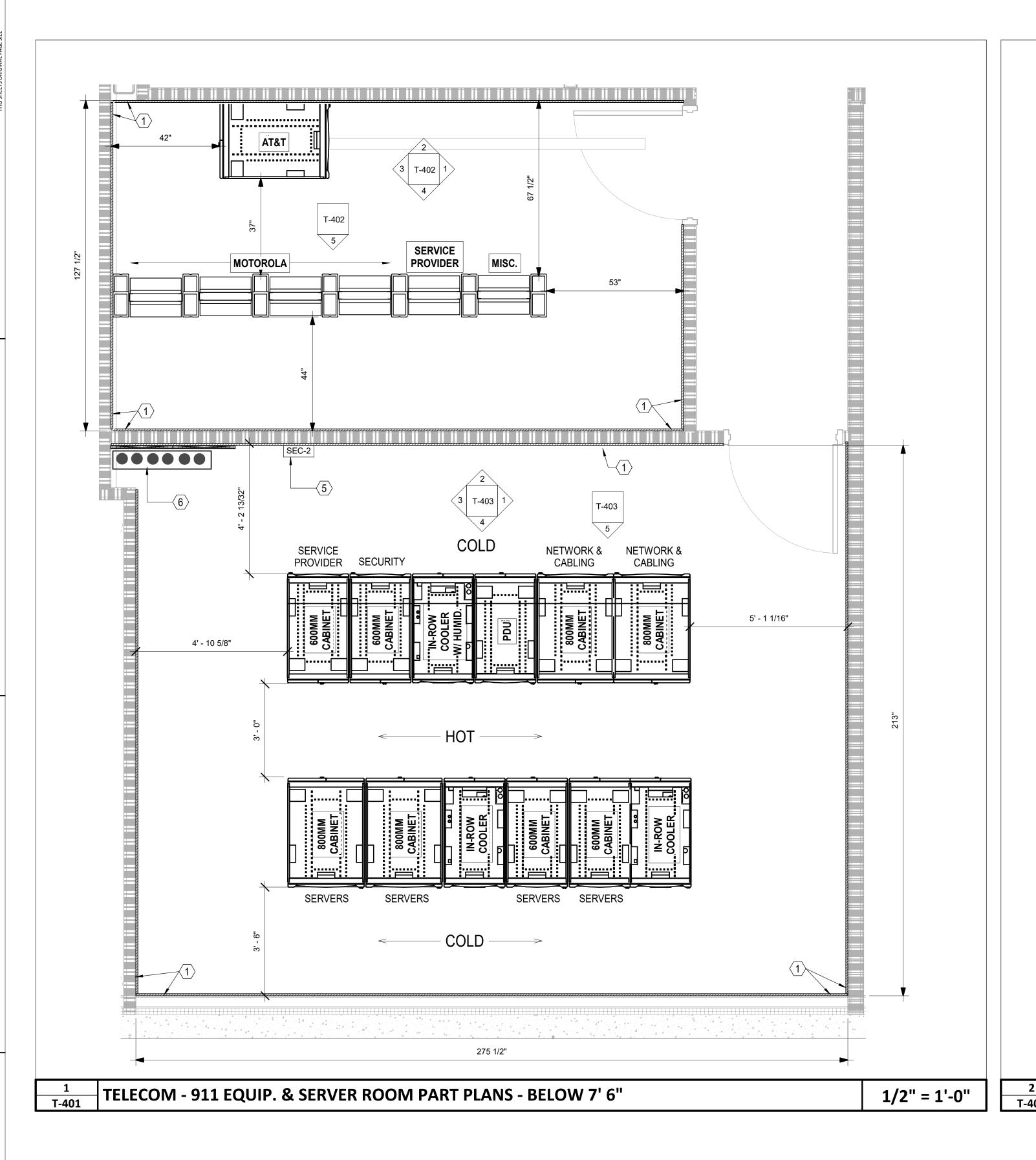
SHEET NAME: TELECOM FLOOR PLAN - LEVEL 4 - AREA

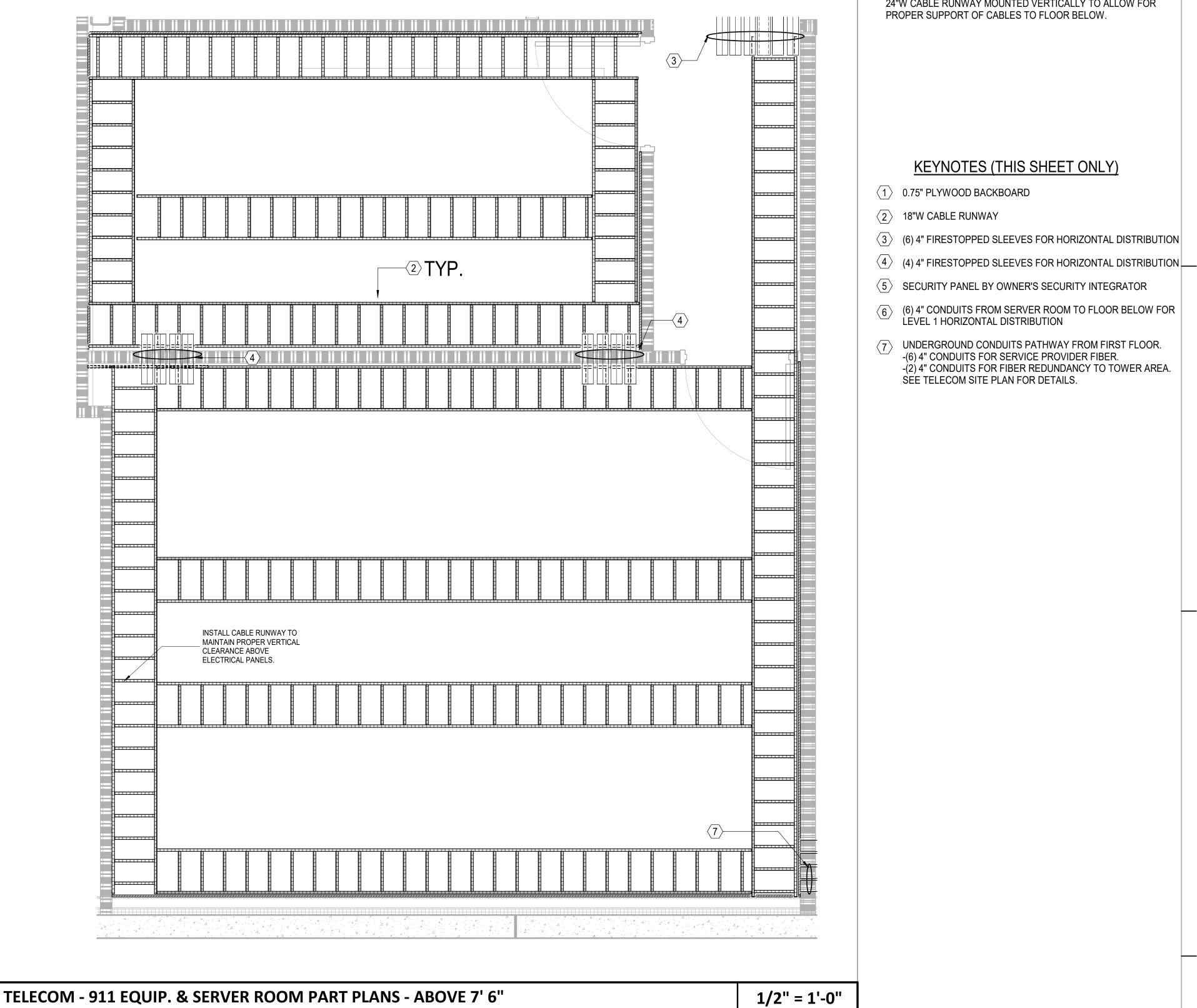
DATE: **CURRENT:**

2020.11.20 TI GMP SET

SHEET:

T-104B





GENERAL NOTES (THIS SHEET ONLY)

KEYNOTES (THIS SHEET ONLY)

-(6) 4" CONDUITS FOR SERVICE PROVIDER FIBER.

SEE TELECOM SITE PLAN FOR DETAILS.

-(2) 4" CONDUITS FOR FIBER REDUNDANCY TO TOWER AREA.

1. AT ALL VERTICAL SLEEVE LOCATIONS, FURNISH AND INSTALL 24"W CABLE RUNWAY MOUNTED VERTICALLY TO ALLOW FOR PROPER SUPPORT OF CABLES TO FLOOR BELOW.



101 NORTH THIRD STREET, SUITE 500 **WILMINGTON, NORTH CAROLINA 28401** TEL. 910.790.3111 FAX. 910.790.9901 WWW.LS3P.COM

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ANOVER

△ DATE DESCRIPTION

& SERVER ROOM

DATE: **CURRENT:**

SHEET NAME:

TELECOM - 911 EQUIP.

PART PLANS

SHEET:

T-401

2020.11.20

TI GMP SET

SERVER ROOM EQUIPMENT

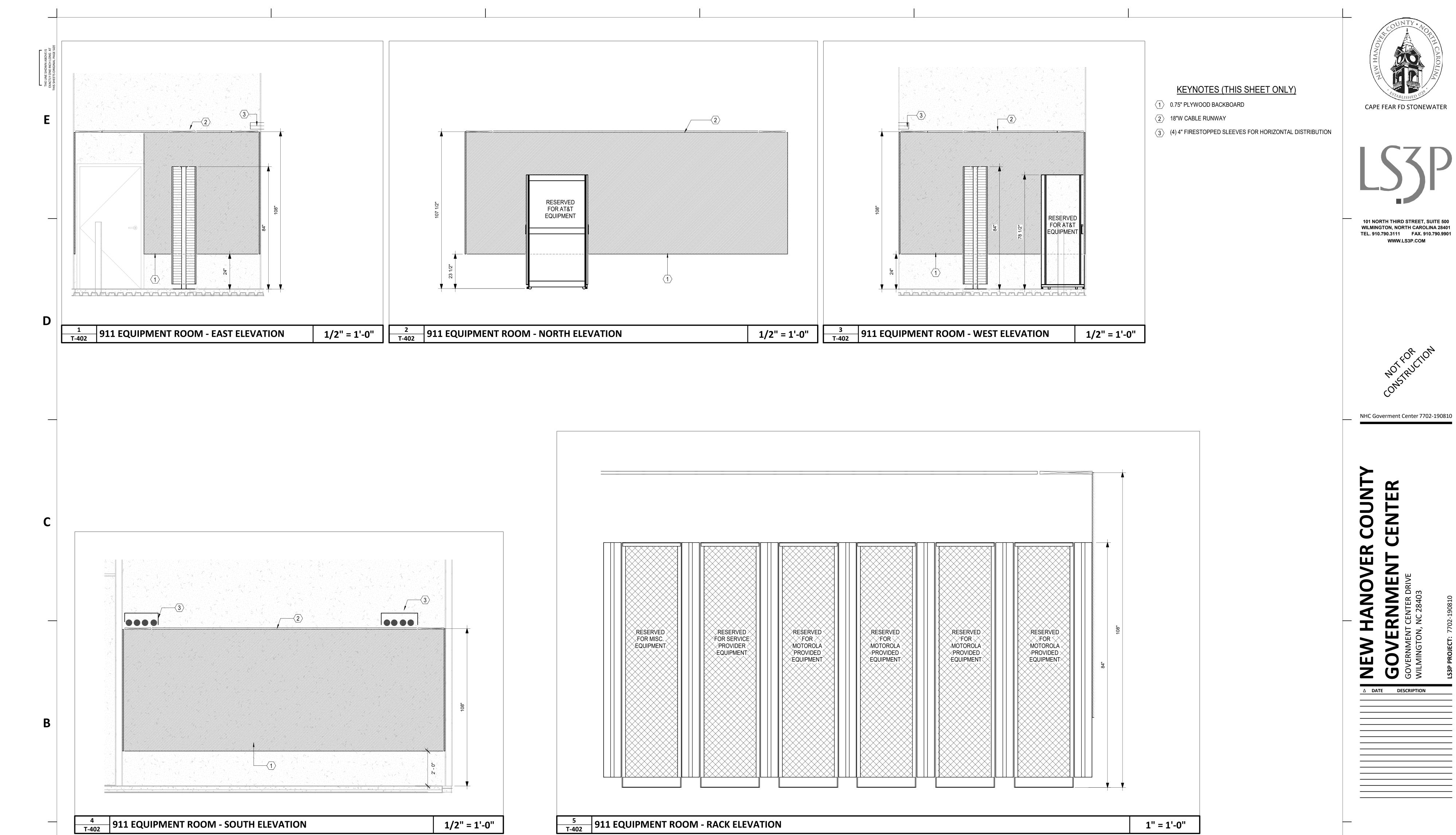
SERVER ROOM EQUIPMENT PROVIDED AS PART OF CUSTOMIZED SOLUTION THAT INCLUDES CABINETS, TERMINATION ACCESSORIES, CABLE MANAGEMENT, HOT AISLE CONTAINMENT, UPS AND BATTERY CABINET AS WELL AS OTHER HARDWARE AND ACCESSORIES. APC QUOTE/PART NUMBER ISX0001852536-0005

SOLUTION NUMBER : ISX0001852536-0005 DESIGN NAME: ISXD DESIGN 1 DESIGN NOTES FOR ISXD DESIGN 1

FOR MORE INFORMATION SEE BOM MATERIALS FILE INCLUDED WITH THE TELECOM DRAAWINGS OR/AND CONTACT APC REPRESENTATIVE : JIMMY JACK - TEL: 803 833 3046 JJACK@CRITICALCOMPONENTS.NET

> Newcomb & Boyd CONSULTANTS AND ENGINEERS Consulting Engineering Group
> 5425 Page Rd
> Suite 215
> Durham, NC 27703
> T 919 783-7812
> Contact: Paul J. Kitchens
> N&B PROJECT: 19N342

Firm License No. F-0312



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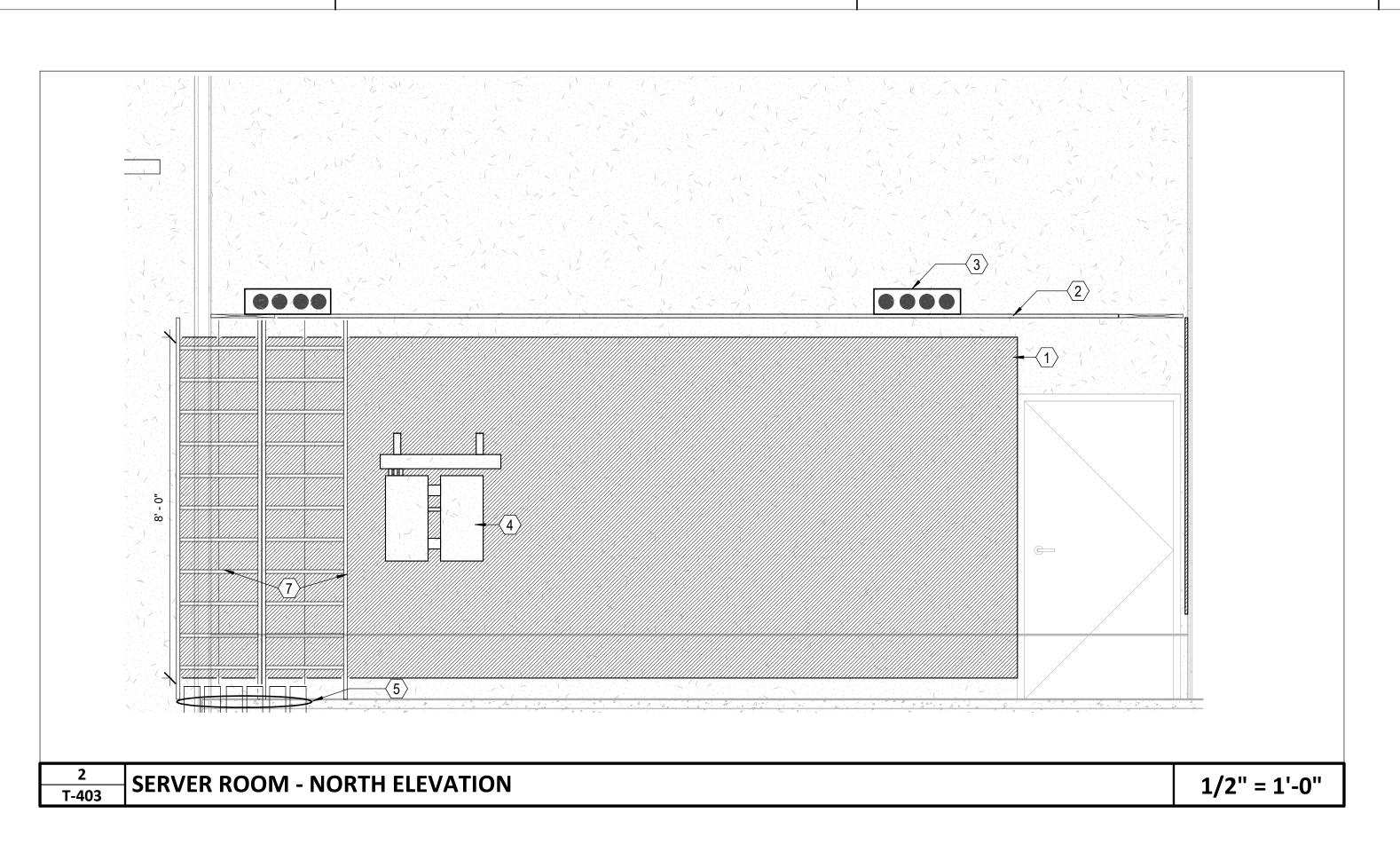
TELECOM - 911 **EQUIPMENT ROOM ELEVATIONS** DATE: **CURRENT:** 2020.11.20

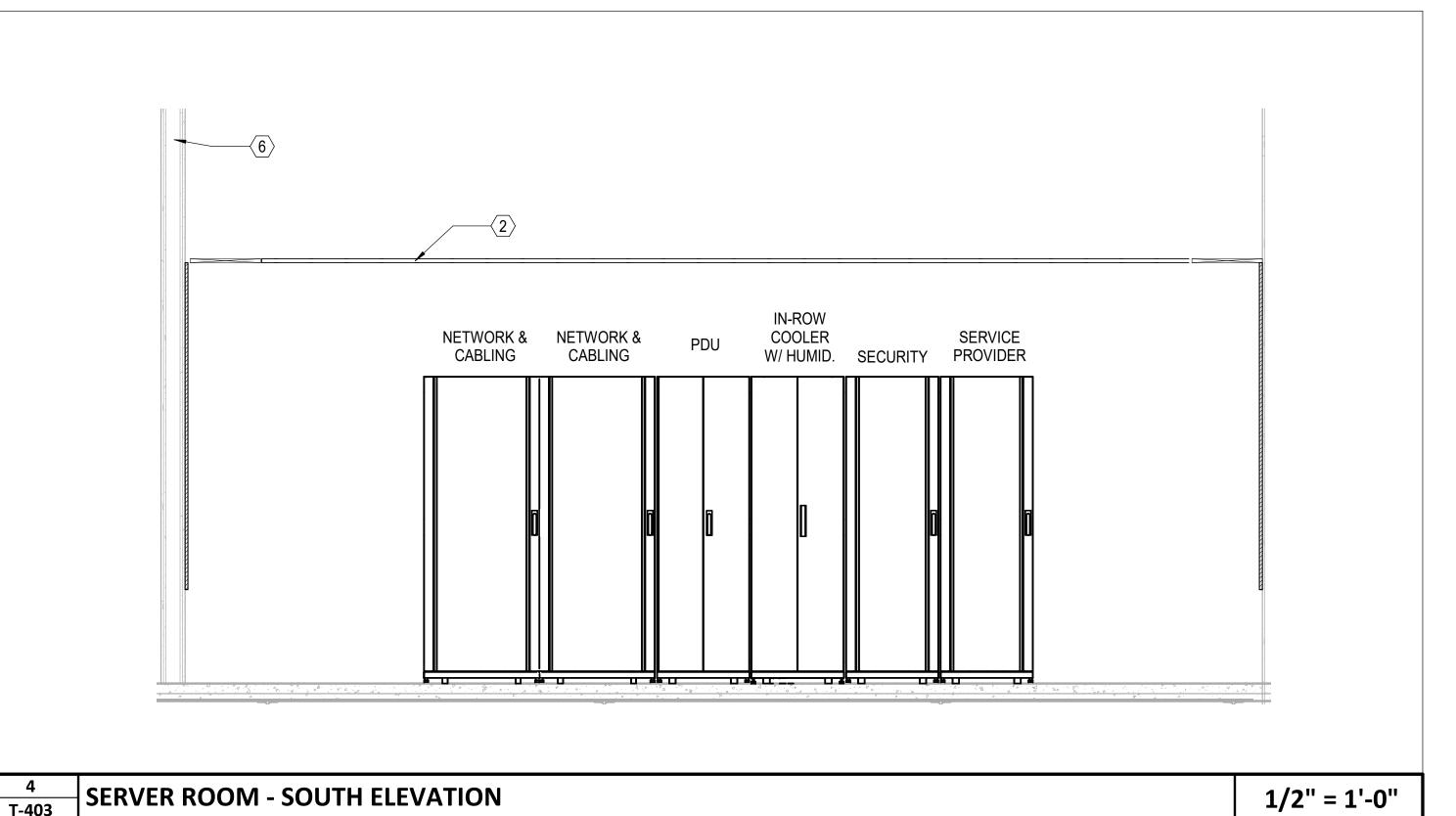
SHEET NAME:

SHEET:

T-402 TI GMP SET

SERVER ROOM - WEST ELEVATION





GENERAL NOTES (THIS SHEET ONLY)

AT ALL VERTICAL SLEEVE LOCATIONS, FURNISH AND INSTALL 24" W CABLE RUNWAY MOUNTED VERTICALLY TO ALLOW FOR PROPER SUPPORT OF CABLES.

KEYNOTES (THIS SHEET ONLY)

4 SECURITY PANEL BY OWNER'S SECURITY INTEGRATOR

(6) 4" CONDUITS FROM SERVER ROOM TO FLOOR BELOW FOR LEVEL 1 HORIZONTAL DISTRIBUTION

6 UNDERGROUND CONDUITS PATHWAY FROM FIRST FLOOR.
-(6) 4" CONDUITS FOR SERVICE PROVIDER FIBER.
-(2) 4" CONDUITS FOR FIBER REDUNDANCY TO TOWER AREA.
SEE TELECOM SITE PLAN FOR DETAILS.

9 48 PORT PATCH PANEL FOR HORIZONTAL DISTRIBUTION

1 0.75" PLYWOOD BACKBOARD

(4) 4" FIRESTOPPED SLEEVES

7 24" W VERTICAL CABLE RUNWAY

8 2RU WIRE MANAGER

 $\langle 2 \rangle$ 18"W CABLE RUNWAY



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SHEET NAME: TELECOM - SERVER

ROOM ELEVATIONS

DATE: **CURRENT:**

2020.11.20 TI GMP SET

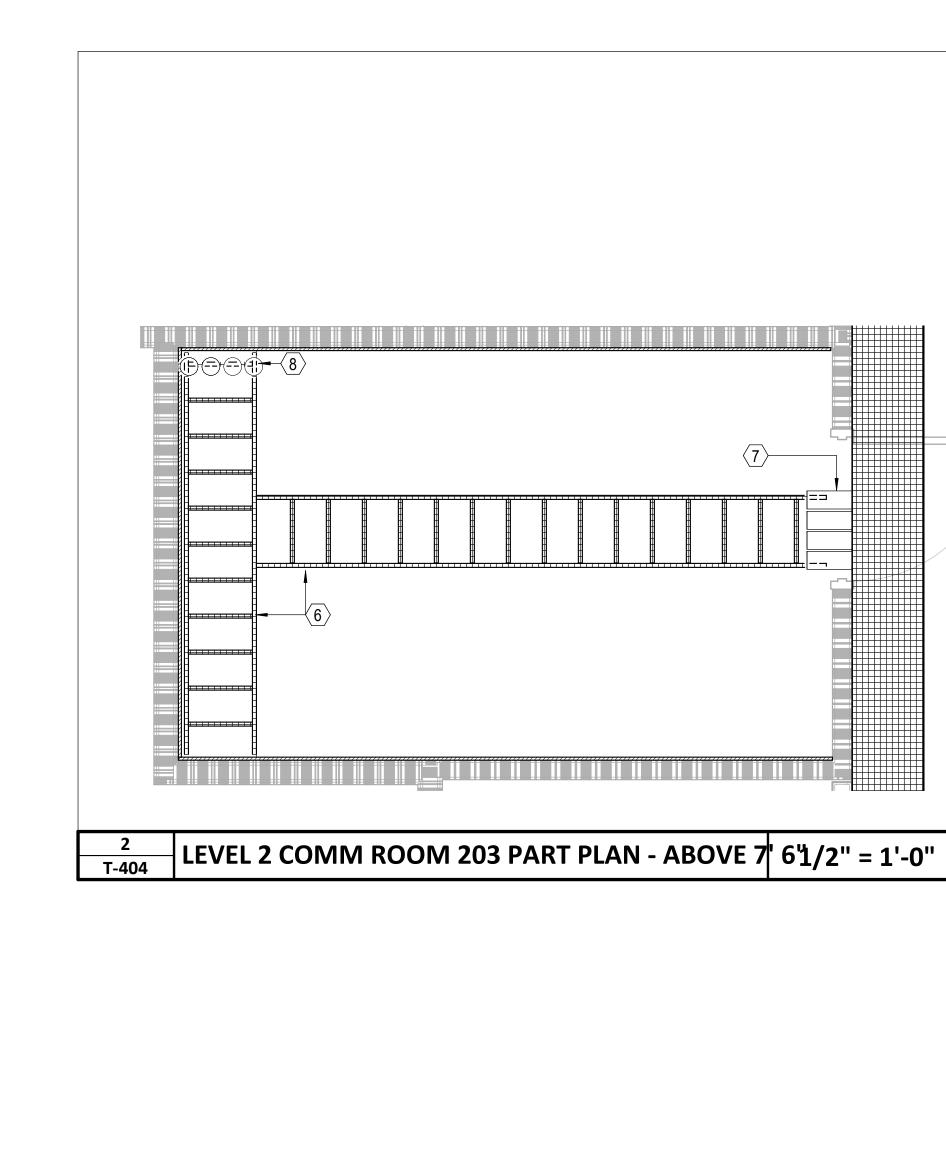
SHEET: **T-403**

TI GMP SET

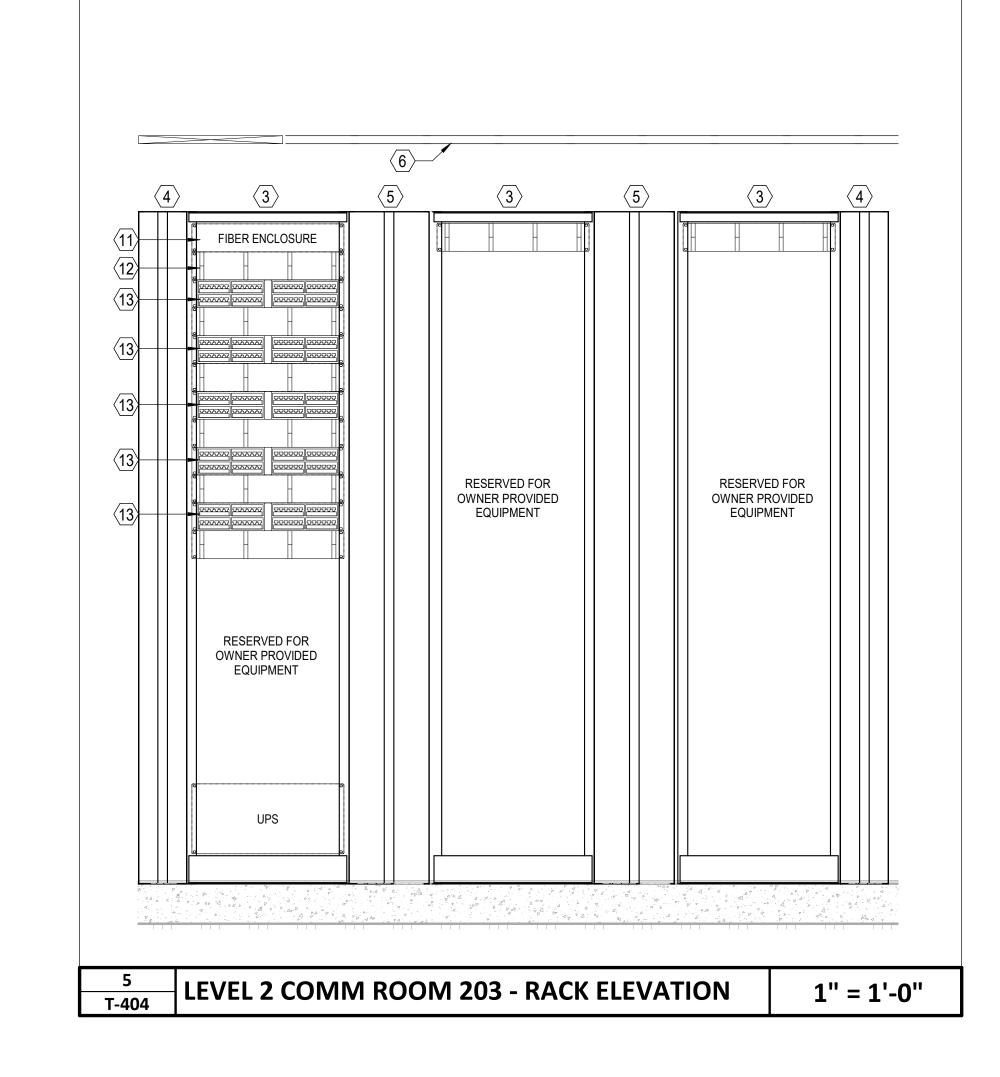
RESERVED FOR OWNER PROVIDED **EQUIPMENT** NETWORK CABINET - RACK ELEVATION 1" = 1'-0"

1/2" = 1'-0"

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Consulting Engineering Group
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N&B PROJECT: 19N342
Firm License No. F-0312



LEVEL 1, 3 & 4 COMM ROOM PART PLAN - ABOVE 7'16/2" = 1'-0"



RESERVED FOR OWNER PROVIDED EQUIPMENT OWNER PROVIDED EQUIPMENT 6 T-404 LEVEL 1, 3 & 4 COMM ROOM - RACK ELEVATION 1" = 1'-0"

GENERAL NOTES (THIS SHEET ONLY)

1. AT ALL VERTICAL SLEEVE LOCATIONS, FURNISH AND INSTALL 12"W CABLE RUNWAY MOUNTED VERTICALLY TO ALLOW FOR PROPER SUPPORT OF CABLES.

KEYNOTES (THIS SHEET ONLY)

1 0.75" PLYWOOD BACKBOARD

3 2-POST EQUIPMENT RACK

6 18"W CABLE RUNWAY

6" VERTICAL WIRE MANAGER

5 10" VERTICAL WIRE MANAGER

(4) 4" FIRESTOPPED SLEEVES

2 TELECOMMUNICATIONS GROUNDING BAR

8 4" FIRESTOPPED SLEEVES TO COMM ROOM ABOVE

9 4" FIRESTOPPED SLEEVES TO COMM ROOM BELOW

SINGLEMODE TO COMM ROOM 103, 303 AND 403. 2RU WIRE MANAGER (TYPICAL)

(10) SECURITY PANEL BY OWNER'S SECURITY INTEGRATOR

2RU FIBER PATCH PANEL FOR 72 STRAND SINGLEMODE FIBER FROM SERVER 206 TO PROVIDE 12 STRAND

(13) 48 PORT PATCH PANEL FOR HORIZONTAL DISTRIBUTION

1RU FIBER PATCH PANEL FOR 12 STRAND SINGLEMODE FIBER FROM COMM ROOM 203



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SHEET NAME: TELECOM - COMM **ROOM PART PLANS**

DATE: **CURRENT:**

Newcomb & Boyd CONSULTANTS AND ENGINEERS

Consulting Engineering Group 5425 Page Rd Suite 215 Durham, NC 27703 T 919 783-7812

Contact: Paul J. Kitchens N&B PROJECT: 19N342

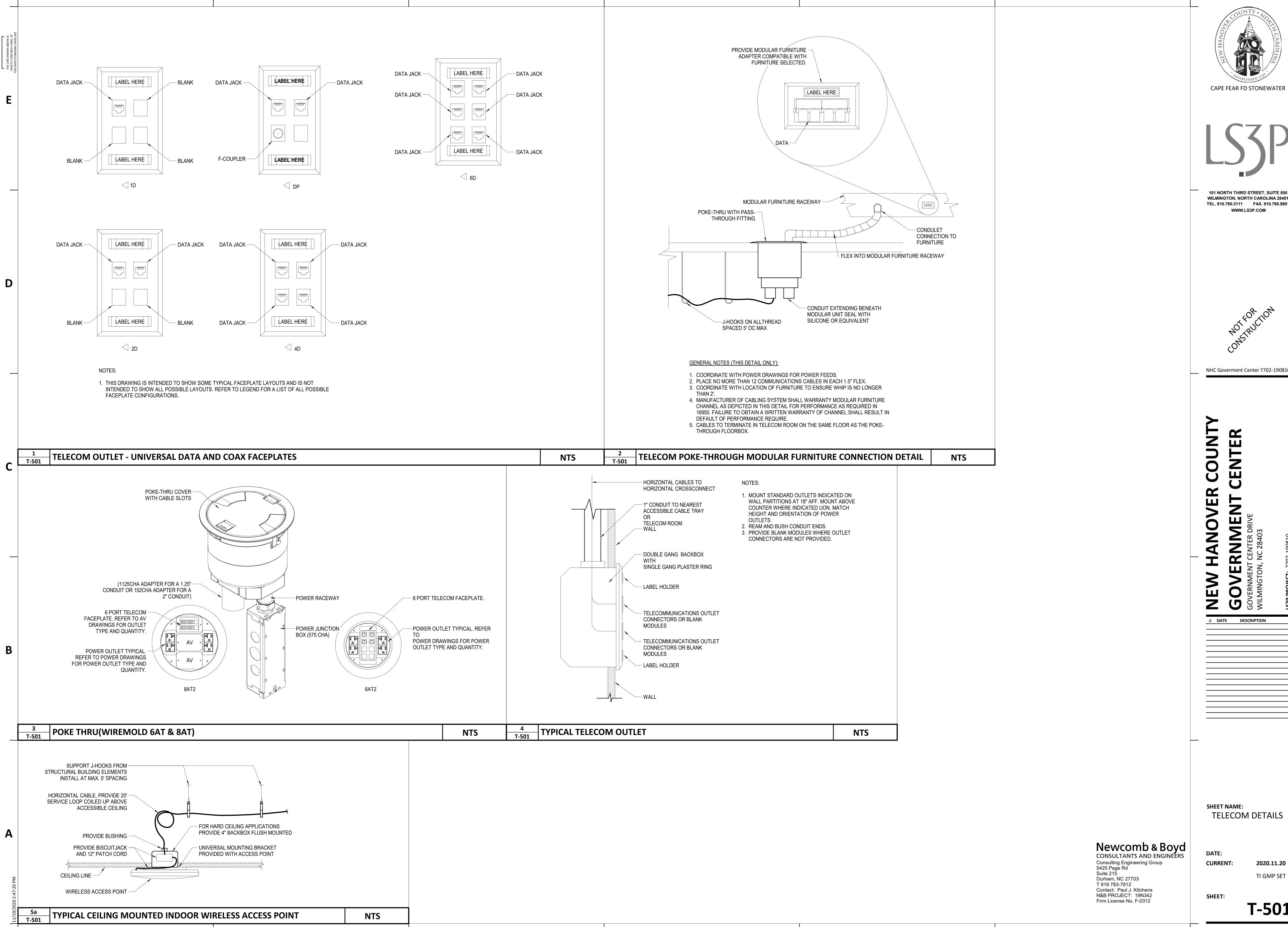
Firm License No. F-0312

SHEET:

T-404

TI GMP SET

2020.11.20



NHC Goverment Center 7702-190810

△ DATE DESCRIPTION

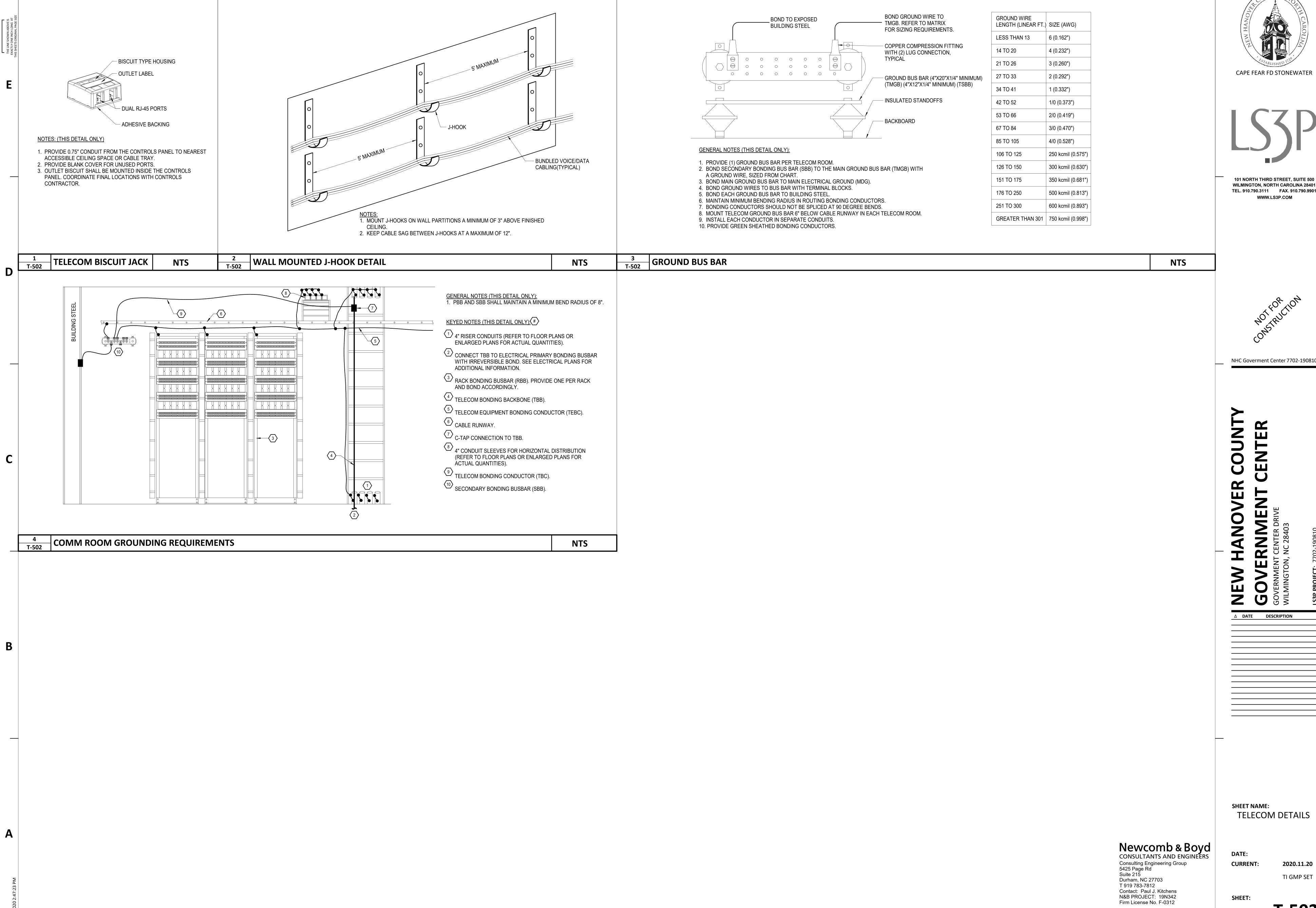
SHEET NAME: TELECOM DETAILS

CURRENT

2020.11.20 TI GMP SET

SHEET:

T-501 TI GMP SET



NHC Goverment Center 7702-190810

TELECOM DETAILS

TI GMP SET

2020.11.20

T-502

