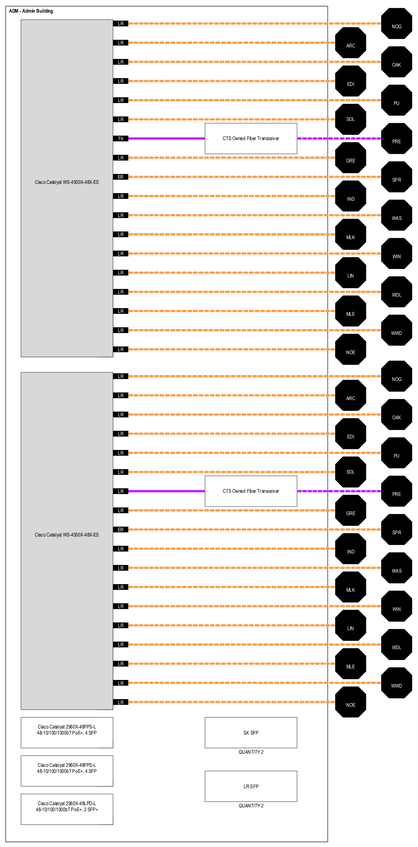

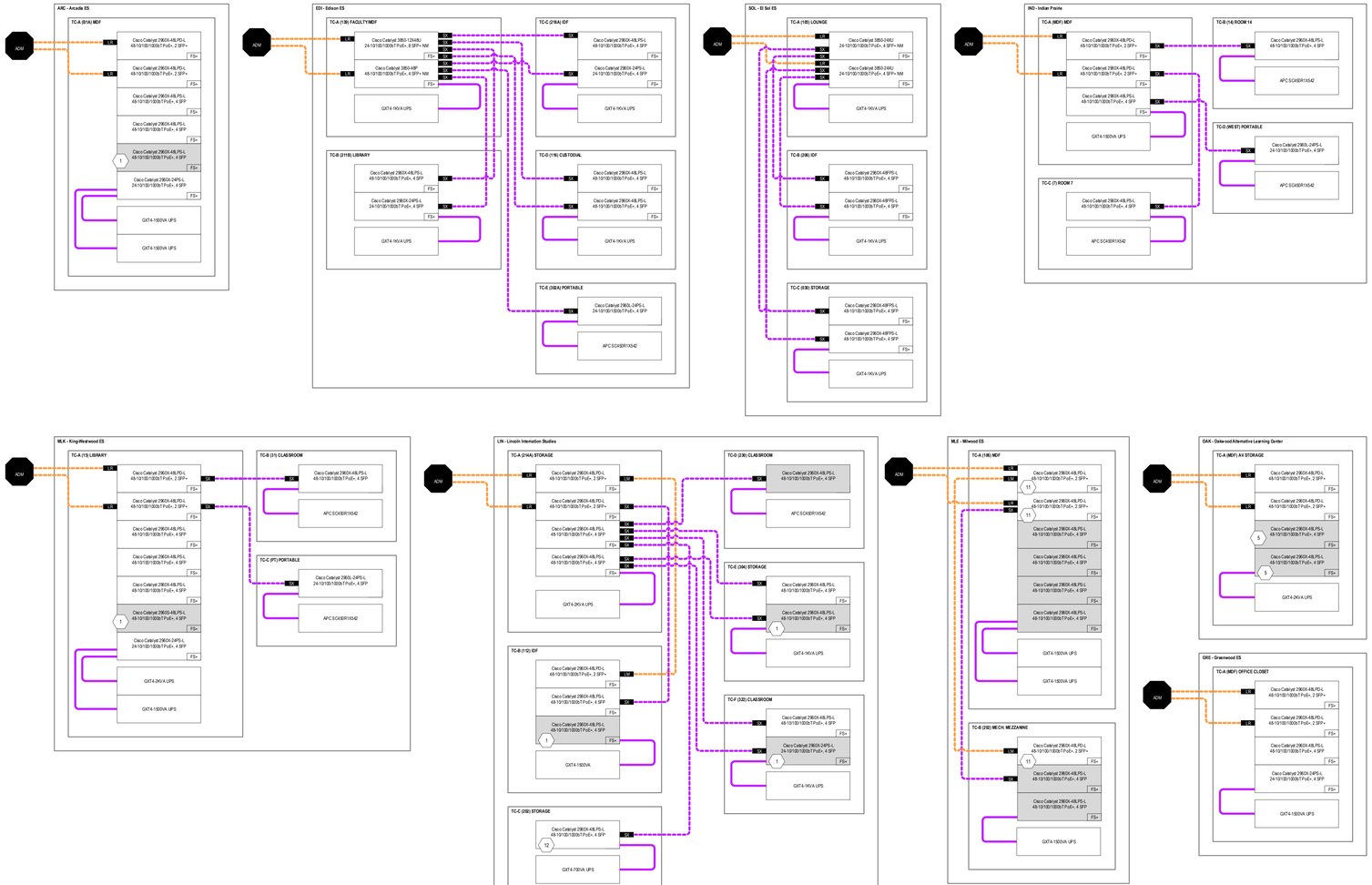

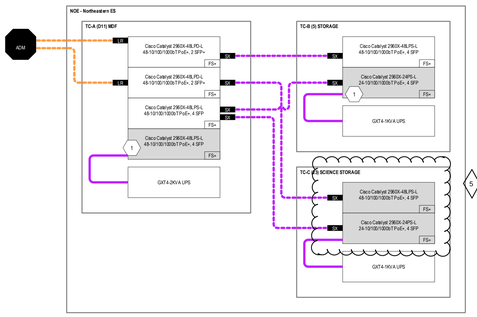

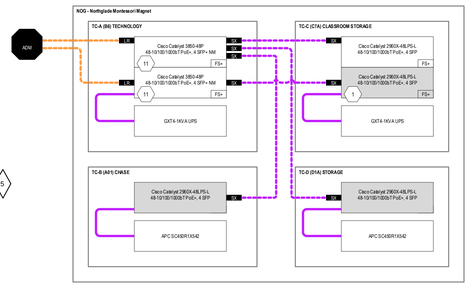

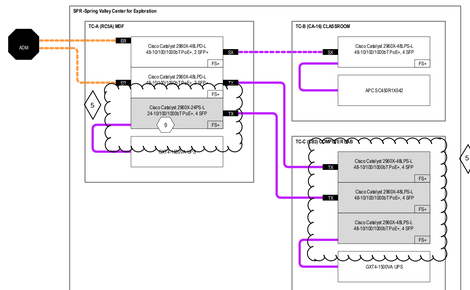

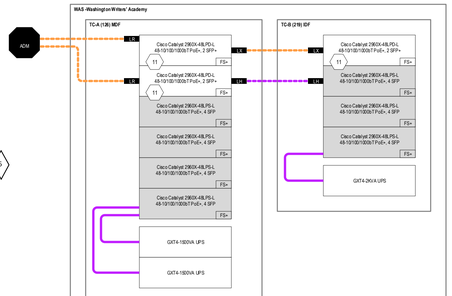

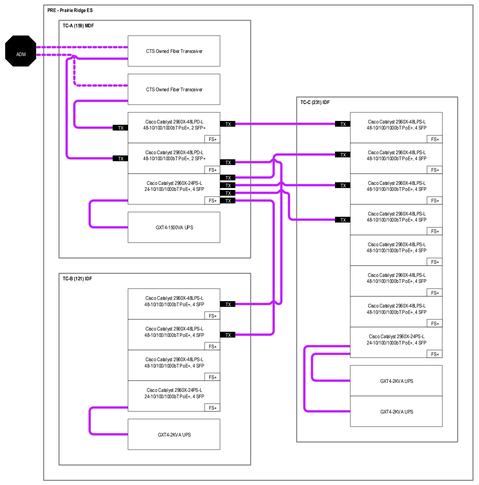

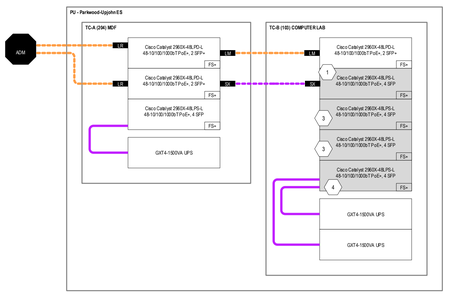

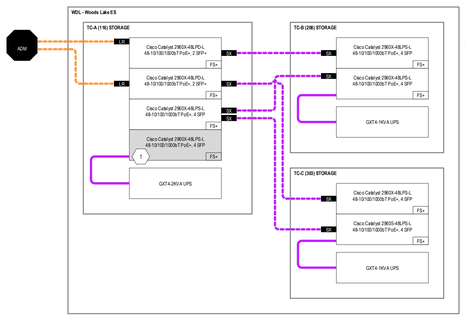

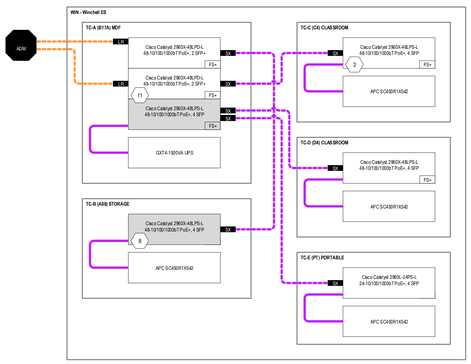

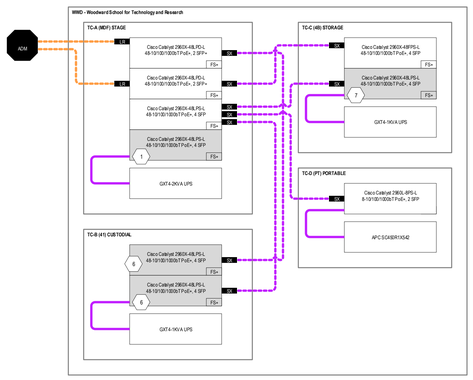

KEYED NOTES

1. PROVIDE AND INSTALL NEW FLEXSTACK PLUS MODULE FOR EXISTING SWITCH.
2. RELOCATE EXISTING SWITCH FROM ANOTHER CLOSET IN SAME BUILDING.
3. RELOCATE EXISTING SWITCH FROM (MLE) MILWOOD ES MDF. REUSE EXISTING FLEXSTACK PLUS MODULE.
4. RELOCATE EXISTING SWITCH FROM (MLE) MILWOOD ES IDF. REUSE EXISTING FLEXSTACK PLUS MODULE.
5. RELOCATE EXISTING SWITCH FROM (NOG) NORTHGLADE ES MDF. REUSE EXISTING FLEXSTACK PLUS MODULE.
6. RELOCATE EXISTING SWITCH FROM (WAS) WASHINGTON ES MDF. REUSE EXISTING FLEXSTACK PLUS MODULE.
7. RELOCATE EXISTING SWITCH FROM (WAS) WASHINGTON ES IDF. REUSE EXISTING FLEXSTACK PLUS MODULE.
8. RELOCATE EXISTING SWITCH FROM MDF. REUSE EXISTING FLEXSTACK PLUS MODULE.
9. RELOCATE EXISTING SWITCH FROM (LIN) LINCOLN ES IDF. REUSE EXISTING FLEXSTACK PLUS MODULE.
10. REMOVE EXISTING C2960X-48LPS-L SWITCH, TO BE REUSED ELSEWHERE. REPLACE WITH NEW SWITCH AS SHOWN.
11. REMOVE EXISTING C2960X-48LPS-L AND FLEX STACK MODULE, TO BE REUSED ELSEWHERE. REPLACE WITH NEW SWITCH AS SHOWN.
12. REMOVE EXISTING C2960X-24PS-L SWITCH, TO BE REUSED ELSEWHERE. REPLACE WITH NEW SWITCH AS SHOWN.
13. REMOVE EXISTING C2960X-24PS-L AND FLEX STACK MODULE, TO BE REUSED ELSEWHERE. REPLACE WITH NEW SWITCH AS SHOWN.

NETWORK NOTES

- Provide all parts and labor required to implement a fully functional turnkey network as depicted in network diagram.
- Provide switch models, NM modules, power supplies as indicated on drawings or their functional equivalents.
- Remove existing network switches that are not needed from each rack and return to owner.
- Existing SFP/SFP+ modules, UTP patch cords and fiber patch cords may be reused provided they are in good condition.
- Provide all SFP/SFP+ modules and fiber patch cords, stacking cables, UTP patch cords, etc. as required.
- All UTP patch cords shall used for 1-to-1 patching shall be no longer then 12 inches and shall follow the district's color-coding standard.
- Coordinate with owner and owner's technology consultant on the design of VLANs, routing, IP addressing, device naming and labeling standards.
- All critical equipment and WAN links shall be connected to both WAN core switches.
- All network backbones shall be configured as LACP groups and 802.1q VLAN trunks.
- Building Core switches shall be stacking for both data and power; provide SFP/SFP+ ports as required and shall have IP Base feature set or greater.
- Buildings without building core switches shall operate at Layer 2 with all VLAN routing performed by the District Core switches.
- Access layer switches (2960X models) shall be stackable of up to 8 units. All new switches, even if not initially in a stack, shall include a stacking module.
- WAN backbone connections shall operate at 20 GB (2 x 10 GB) line.
- Tech closet with up to 48 ports shall be connected by a 1 GB link.
- Tech closets with up to 96 ports shall be connected by 2 GB (2 x 1 GB) links.
- Tech closets with more then 96 ports shall be connected by 10 GB link with a 1 GB backup link. Configure routing or RSTP to support failover from 10 GB to 1 GB backup links.
- All switches shall be configured to support voice VLAN and shall be configured with QoS to prioritize voice and video traffic.
- All equipment shall be labeled with host name and management IP address following owner's standards.
- New and existing switches shall be upgraded to the latest stable IOS release.
- Scheduling of all work that will result in network downtime shall be coordinated and approved by owner in advance.
- As fiber links are installed, Contractor shall use a fiber deaming "pen" to deen ends of all fiber connections in fiber patch panels and ends of fiber patch cords.
- Prior to removing patch cords and/or switches, contractor will document the VLAN and other unique port settings for each switch port and the cable drop it is patched to. Contractor will program and patch new switches to the VLAN and other unique port settings are identical after the switches are installed and active.
- Where rack depth does not allow installation of new switch or UPS equipment, the rack can be extended with 2U standoff rack extender bracket (Rackmount Solutions 34-19992) as long as this does not prevent closing and locking of the rack door.

UPS NOTES

- On-line double conversation UPS units shall be provided as shown on drawings or their functional equivalents.
- Where possible UPS shall be rack mounted. Provide 4-post or 2-post rack mounting kit as required for each UPS location.
- Where rack space is not available UPS shall be wall mounted on painted plywood backeboard, see detail 27302..
- Connect UPS directly to wall outlet, use of extension cords is not allowed.
- Connect all network loads to UPS output.
- Neatly dress and secure all power cords to minimize the risk of loss of power due to a dislodged cord.
- Use of rack mounted or vertical output PDU units is allowed when required to provide additional output receptacles.
- UPS shall be equipped with SNMP monitoring card and connect to the network.
- Coordinate with owner and owner's technology consultant on device naming, IP addressing, management passwords and alert settings.
- All UPS units shall be labeled with host name and management IP address following owner's standards.
- For closets with more than one UPS, each UPS should be plugged into separate electrical circuits.

SYMBOL LEGEND

- EXISTING DEVICE
- NEW DEVICE
- NEW DEVICE WITH FLEX STACK PLUS MODULE
- SFP MODULE; XX = MODULE TYPE
- CONNECTION SPEED = 10GB
- CONNECTION SPEED = 1GB
- CONNECTION TYPE = COPPER
- CONNECTION TYPE = FIBER
- CLOSET IN ANOTHER BUILDING = XXX = BUILDING ABBREVIATION

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Network Diagrams

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