

Belmont Middle and High School
 Circuit Study Option Evaluation - Locker Room Slab
 July 6, 2020

Option	Description	Estimated Impacts	Pros	Cons	Risks/Unknowns
1A - Refeed Unit 4 Panel from Existing Switchgear	Refeed Panel in Unit 4 from Existing Switchgear Overhead on or within Existing School	Estimated Costs \$500,000 Estimated Schedule 10-12 wks <u>Breakdown:</u> WGE - Labor 1900 MH = \$250k Mat'l = \$150k SKA (temp carp, labor, mat'l = \$100k	- Take advantage of the Summer 2020 Window - Allows Locker Rooms to be available for September 2021	- Substantial work to be demolished at the completion of PH 1. - Does not address branch circuitry in slab. Additional time & shutdowns required to trace/refeed circuitts interrupted by slab demo - Does not address unknown Security, telecom, and AV wiring in slab - Potential for Similar Pneumatic Study/Corrective work to correct potential damaged infrastructure as witnessed at the end of the Summer 2019.	- Dated Equipment in Existing Electric Room. If equipment damaged - replacement parts scarcely available. - Branch Circuitry not addressed. These items would require tracing & refeeding in to avoid conflict - Emergency Power fed through the same existing switchgear as normal power. Potential to disrupt Emergency Power circuits with sawcutting of slab. - Unknown Pneumatic Tubing Conflicts. There is a risk that issues with Pneumatic tubing could continue into school year.
1B - Refeed Unit 4 Panel from NEW Infrastructure	Refeed Panel in Unit 4 from New Service in Ductbank Installed as part of EBP 2. Install Perminant Infrastructure	Estimated Costs \$250,000 Estimated Schedule 6-8 wks <u>Breakdown:</u> WGE - Labor 1000 MH = \$130k Mat'l = \$80k SKA (temp carp, labor, mat'l = \$40k	- Uses infrastructure already installed in EBP to bring feed closer to Unit 4. - Permanent feeds could be installed to last Electric Manhole in PH 2. The Service could be continued upon completion of PH 1 (reduced demolition of temp work) - Potential to use Transformer onsite to step down service prior to entering Unit 4.	- Work to be demolished at the completion of PH 1 (Less than Option 1A). - Does not address branch circuitry in slab. Additional time & shutdowns required to trace/refeed circuitts interrupted by slab dem - Does not address unknown Security, telecom, and AV wiring in slab - Potential for Similar Pneumatic Study/Corrective work to correct potential damaged infrastructure as witnessed at the end of the Summer 2019. - Out of sequence work for Belmont Light	- Dated Equipment in Existing Electric Room. If equipment damaged - replacement parts scarcely available. - Branch Circuitry not addressed. These items would require tracing & refeeding in to avoid conflict - Emergency Power fed through the same existing switchgear as normal power. Potential to disrupt Emergency Power circuits with sawcutting of slab. - Unknown Pneumatic Tubing Conflicts. There is a risk that issues with Pneumatic tubing could continue into school year.
1C Refeed Unit 4 Panel from Existing Service to HS	Refeed Panel in Unit 4 from Existing Service to High School	Estimated Costs \$200,000 Estimated Schedule 6-8 wks <u>Breakdown:</u> WGE - Labor 800 MH = \$100k Mat'l = \$70k SKA (temp carp, labor, mat'l = \$30k	- Temporary feed could be tapped off of existing electrical feed in existing manhole to bring feed closer to Unit 4. - Potential to use Transformer onsite to step down service prior to entering Unit 4.	- Work to be demolished at the completion of PH 1 (Less than Option 1A). - Does not address branch circuitry in slab. Additional time & shutdowns required to trace/refeed circuitts interrupted by slab dem - Does not address unknown Security, telecom, and AV wiring in slab - Potential for Similar Pneumatic Study/Corrective work to correct potential damaged infrastructure as witnessed at the end of the Summer 2019.	- Dated Equipment in Existing Electric Room. If equipment damaged - replacement parts scarcely available. - Branch Circuitry not addressed. These items would require tracing & refeeding in to avoid conflict - Emergency Power fed through the same existing switchgear as normal power. Potential to disrupt Emergency Power circuits with sawcutting of slab. - Unknown Pneumatic Tubing Conflicts. There is a risk that issues with Pneumatic tubing could continue into school year.
3 - Construct Locker Room After School Upon Completion of PH 1	Leave Temporary Locker Room until Summer 2022. Demolish existing slab when school is abandoned and utilities not required to remain active. Construct Temporary Wellness Rooms in PH 1 Construction outside of the Small Gym	Estimated Costs \$100,000 Estimated Schedule 2-4 wks <u>Breakdown:</u> Temporary Egress, Temporary Structure. Temporary Plumbing, Temporary HVAC/Electric (ALL TBD)	- Reduces risk / cost of interrupting services to the existing school - as these services will no longer be required when work would be completed. - Potential to complete Small Gym renovation prior to the summer of 2023 as originally scheduled.	- New Locker Rooms not available until September 2022. - Summer of 2021 would required replacing OH MEP's in Small Gym Locker Room, as existing MEP's fed from existing Boiler room to be decommissioned in Summer of 2021. - Determine temporary means to provide hot & cold water services to locker room bathrooms constructed in EBP 2. - Construct Temporary Structural wall to support level 2 lab outside girls locker room. Wall to also serve as temporary Exterior wall seperating Occupied HS and PH 2	- Potential Egress Issues to resolve from Small Gym - Additional Construction in the FH & Locker Rooms during PH 2 Construction while PH 1 is occupied. - Additional Construction related to Temporarily Supporting/Selective Demolition of existing structure. - Logistics related to the "Knuckle" Permanent structure construction during the Summer of 2022 to be evaluated