SCHOOL BOARD ACTION REPORT

DATE: December 13, 2017
FROM: Dr. Larry Nyland, Superintendent
LEAD STAFF: Dr. Lester Herndon, Associate Superintendent, Facilities and Operations
(206) 252-0644, ltherndon@seattleschools.org

For Introduction: January 03, 2018
For Action: January 17, 2018

1. TITLE

BEX IV & BTA IV: Lincoln High School Modernization Project: Constructability Report and Implementation Plan

2. PURPOSE

School Board approval of the Constructability Report is required by the Washington Administrative Code (WAC) 392-343-080, as part of the Office of Superintendent of Public Instruction (OSPI) D-Form approval process to receive state funding assistance for the Lincoln High School Modernization Project.

3. RECOMMENDED MOTION

I move that the School Board approve the Constructability Report, dated June 19, 2017 by LRC Consultants, Inc. as complete for the Lincoln High School Modernization Project.

4. BACKGROUND INFORMATION

a. **Background:** The constructability review process is part of the systematic approach for design quality assurance. Regardless if this process is a requirement for State Funding Assistance purposes, this review is undertaken as a standard practice to minimize changes during construction and to support the quality assurance of the facility design. The professional service fee for this Constructability Review Report is $75,846.

b. **Alternatives:** Do not approve the Lincoln High School Modernization Project Constructability Review Report as complete. This is not recommended. If the Board does not accept the report, it would delay the issuance of the form D-10, which allows the district to execute the GMP Amendment and could impact the district receiving State Funding Assistance. Not having the ability to open bids in a timely manner would have a negative impact on the project schedule. If the State assistance funding requirements are not met, the district will not receive up to $8,295,900 in state assistance funding for this project. Additional capital funds would need to be obtained to complete the project.

c. **Research**:
- Office of Superintendent of Public Instruction Form D-9
- Washington Administration Code 392-343-080

5. FISCAL IMPACT/REVENUE SOURCE

Action helps to secure up to $8,295,900 in state funding assistance for Lincoln High School Modernization Project. This action does not represent a specific expenditure.

Expenditure: ☐ One-time ☐ Annual ☐ Multi-Year ☒ N/A

Revenue: ☒ One-time ☐ Annual ☐ Multi-Year ☐ N/A

6. COMMUNITY ENGAGEMENT

With guidance from the District's Community Engagement tool, this action was determined to merit the following tier of community engagement:

☐ Not applicable

☐ Tier 1: Inform

☒ Tier 2: Consult/Involve

☐ Tier 3: Collaborate

The development of the BEX and BTA projects list underwent extensive community engagement.

7. EQUITY ANALYSIS

This motion was not put through the process of an equity analysis. The selection of projects in the BEX and BTA program was designed to provide equitable access to schools across the district.

8. STUDENT BENEFIT

The modernization of Lincoln High School will further address the student capacity needs in the Northwest region of the district. This action will also benefit students by providing the necessary funding to design and construct a school facility which meets current educational specifications and operational goals. This funding will also improve the building environment by providing operable windows in the classrooms while also limiting discomfort from leaky and failing windows, improve student safety by anchoring masonry of concern and improve building aesthetics.

9. WHY BOARD ACTION IS NECESSARY

☐ Amount of contract initial value or contract amendment exceeds $250,000 (Policy No. 6220)

☐ Amount of grant exceeds $250,000 in a single fiscal year (Policy No. 6114)

☐ Adopting, amending, or repealing a Board policy

☐ Formally accepting the completion of a public works project and closing out the contract

☐ Legal requirement for the School Board to take action on this matter

☐ Board Policy No. _____, [TITLE], provides the Board shall approve this item

☒ Other: _____

10. POLICY IMPLICATION

Performing a constructability review report is a requirement of the Office of Superintendent and Public Instruction State Funding Assistance Form D-9. This action is consistent with Board Policy No. 6100, Revenues from Local, State, and Federal Sources, which states, "It is the policy of the Seattle School Board to pursue systematically those funding opportunities that are consistent with district priorities from federal, state, and other governmental units, as well as from private and foundation sources," and "the Board agrees to comply with all federal and state requirements that may be a condition for the receipt of federal or state funds…."

11. BOARD COMMITTEE RECOMMENDATION

This motion was discussed at the Operations Committee meeting on December 7, 2017. The Committee reviewed the motion and moved the item forward to the full board with a recommendation for approval.

12. TIMELINE FOR IMPLEMENTATION

Implementation of the accepted recommendations is immediate.

13. ATTACHMENTS

- Constructability Review Comment Resolution

SEATTLE SCHOOL DISTRICT

LRC CONSULTANTS, Inc. DESIGN/CONSTRUCTABILITY REVIEW COMMENT RESOLUTION

Project Name: Lincoln High School Modernization

Construction Manager: Adam Wilson

Consultant: _LRC Consultants__	Date: 6/19/17____	Program Documents	
		Schematic	
		Design Development	
		Construction Documents 95 %	X

Drawing or Spec Ref.	Item No.	Coordination Comments	A & E Response	Resolution Date
HM2-10, AD2.10, M1.10	C1:	HM2.10 at Hall N10G and NW stair N10C show to remove ACM curbing throughout with ACM flooring to remain. AD2.10 shows to sawcut a portion of SOG in these areas for new waste piping on M1.10.	Hazmat to be coordinate during the reconciliation dwg set	8/11
AD2.10, M1.10	C2:	M1.10 at science 006 shows 4" AW parallel to cabinets on grid NR then routing at a 45° angle to grid NP.5 to exterior. AD2.10 doesn't show the SOG demolition for this pipe routing. If piping cannot reconfigure routing in areas shown with SOG removal, suggest showing additional saw cutting scope M1.10 pipe routing for clarity.	Piping has been rerouted	8/4
AD2.10, M1.10	C3:	M1.10 at grid area NK/N2.7-N4 shows a 2" waste line parallel with grid NK with a branch to the east and a 45° bend to the southeast. AD2.10 doesn't show the SOG demolition for this pipe routing. Suggest showing additional saw cutting scope for clarity.	Rerouted so under door and coordinated with architectural.	8/14
AD2.10, AD3.12, A3.12, S2.10, S4.01	C4:	AD2.10 at grid area NB/N3.4 references demolition notes #1 stating to remove window. Elevation 3/AD3.12 shows the window. Elevation 7/A3.12 shows to infill the window with CMU per detail 16/A5.35. Suggest S2.10 show this CMU infill and reference detail 4/S4.01for clarity.	Structural drawings have been revised to reference the CMU infill. See revised Sheet S2.10.	8/11

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A2.11, A3.12, A4.11, A4.12, A5.32, S2.11, S3.01, S3.20, Spec 55313	C5:	The following comments apply to the exterior grating framing design 1st floor grid area NA-NB/N2-N3. A) Detail 1/S3.20 shows to install C8x13.7 typical at (5) bays grids N2-N3 on only 3 sides of the openings. Elevation 7A3.12 along grid NB references detail 6/A5.32 which shows angle iron framing on grids NB and NA supporting grating. Which is wanted along grids NB and NA, angle iron or C-Channels? Is there steel framing required around the narrow bay on north end? None shown. B) Detail 1/S3.20 and detail 16/A5.32 both show C-channels at concrete beam dividers, but neither details note or show how to attach C-Channels to existing beams and detail 16/A5.32 shows a clear 3" separation between face of concrete and C-channel. How are these channels supported? C) Detail 6/A5.32 shows angle iron attached to existing structure on grids NB and NA with epoxy grouted and expansion anchors. What size are these and what is the spacing? Intent is not clear. D) What elevation does this steel framing install at? Sections on A4.11 and A4.12 don't provide elevations and details don't either. Needs updated. E) Detail 1/S3.20 and 16/A5.32 show intermediate WT shapes between C-Channel members. How are these attached? Should detail coping and welding for clarity if that is the intent. F) Detail 1/S3.20 and detail 16/A5.32 both note the metal grating as 1¾" thick. Type 1 is referenced on detail 16. Section 55313-2.3.B.2 indicates grating with Mark 19-SG-4 is 1½" thick. Needs updated. G) Detail 1/S3.20 references detail 12/S3.01 on grid NA. This is a SOG detail that doesn't appear to apply at this location.	A) C-channels are required to avoid loading the existing brick wall directly above the windows along Grid NB. At Grid NA, detail 30/s3.20 is called out for the angle support. Support on the north end has been added. B) New detail added showing structural connections. C) Detail 30/S3.20 is cut along this line and shows anchors. D) Will add E) New detail added showing structural connections. F) Specifications has been updated G) The detail callout has been updated to refer to 20/S3.20.	8/11

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AD2.10, AD2.11, S2.10	C6:	S2.10 at general grid area N3-C1/CA-CE shows a symbol for SOG infill per plan note 1. Comments are as follows: A) AD2.10 along south area of room N12 doesn't show much of the existing SOG to be removed and shows a lot of saw cutting. Although on AD2.10, this SOG area is noted as -2'-0" AFF (assume -2'-0" below the 88'-2" elevation). Should this existing SOG be removed for proper backfill, compaction operations? It would seem more economical to remove the entire SOG area vs. all the saw cuts shown. B) AD2.10 at mechanical tunnel east of room N12 references demolition note #14 stating to remove as necessary, coordinate with new construction. AD2.11 at same location references demolition note #18 stating to remove floor finish to substrate and protect floor structure to remain. S2.10 shows a new exterior sump enclosure with a FF elevation of 87'-0". It would appear much of this tunnel will need to remove to install the new exterior sump enclosure. C) AD2.10 should reference the elevation of the tunnel floor for clarity. It shows room N12 to be -2'-0" below the FF of the basement and shows a ramp to the mechanical tunnel. Having the FF of the tunnel would be helpful to demolition and excavation contractors to quantify demolition and excavation quantities.	A) Will show on reconciliation drawings B) Will show on Note 14 C) Will add to elevation	9/5
AD2.21, S2.21	C7:	S2.21 in grid area C4-C7/CB-CD shows existing SOG demolition extents that are larger than what is shown on AD2.21. Suggest coordinating demolition extents for clarity.	Structural to match architectural model received on 7/21/2017	8/11

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AD2.21, S2.21	C8:	AD2.21 in room 105 and room east of Stair B show SOG demolition for Mechanical waste piping. S2.21 isn't showing the same quantity of demolition. Suggest coordinating demolition extents for clarity.	Structural to match architectural model received on 7/21/2017.	8/11
HM2-22, AD2.22, A2.22, A6.13, A6.14, A9.04, S2.22	C9:	HM2-22 shows to remove the ACM Magnesite flooring beneath VCT in corridors 200, 200D, and 200B. S2.22 notes corridor 200 with a FF elevation of 113'-6" and notes the elevated slab as an existing 5" slab. A) What elevation is the existing AMC Magnesite floor? We assume this terrazzo/Magnesite material is somewhere around ¾" to 7/8" thick. What isn't clear is if this ACM material is at elevation 113'-6" and when removed, a cast underlayment material will be required to make up the difference to elevation 113'-6". B) Comment "A" above is an example of the unclear scope and volume of cast underlayment material that will be required throughout. We are not aware of how bid packages are set up or if the GC will self-perform this scope of work. If possible, suggest indicating what the existing FF elevations are and the thickness of the ACM materials for clarity. C) HM2-22 shows the ACM Magnesite flooring passing through the partitions and doors into stairs A and B. Abatement note #3 states to provide vertical cut of ACM flooring at either side of stair enclosure walls to remain. How close does this sawcut need to be against the stair enclosure walls? Suggest noting the minimum distance for clarity. ACM corridor flooring continued next page…	A) Core samples have been made available to subcontractors and GCCM is aware of replacement coordination B) GCCM is self-performing replacement material. Scope will be somewhat unknown just because magnesite 'creeps'. Will attempt to control risk by indicating lump sum cost. C) Contractor/Owner/Design team has decided to remove walls at stairwells and rebuild after leveling has been done on the 2nd to 4th floor for risk management	9/4

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		ACM corridor flooring continued from previous page… D) The conditions noted in comment "C" above also occur on the 3rd floor with HM2-23 and AD2.23. E) HM2-22 and AD2.22 at the north side of stair B and the south side of stair A show a narrow strip behind the electrical closet walls and the stairs that appears to be 2nd floor flooring to be removed. HM2-22 isn't clearly showing this scope (if required). If it is required, does the flooring remove around the railing system to be protected and sawcut against the electrical closet walls? This appears to be an area of ACM selective demolition that should be noted as such for clarity. This also occurs at the 3rd floor.	D) Answered in C E) Hazmat clarification needed in reconciliation dwgs.	8/11
AD2.10, A2.10, AD7.11, A9.51, S3.10	C10:	Demolition elevation 1/AD7.11 between grids NP-NQ at the basement level shows a stacked wall demolition 10'-6" high. A) Elevation 4/S3.10 at basement level should show the additional upper wall demolition and reference "demo per Architectural" for clarity. B) Elevation 1/AD7.11 at the first floor between grids NP-NQ needs to provide a width dimension for the intended opening that is also tied to a gridline. Detail 2/A9.51 of wall on grid NP doesn't dimension edge of opening from a grid either.	A) Will show in reconciliation set B) Will add note for alignment in reconciliation set	9/4

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AD2.21, A2.11, A7.14, A9.11, A9.12, A9.14, S2.12, S3.08	C11:	A9.11 at door 131-1 references head/jamb details 16 and 20/A9.14. Detail 16 shows a metal bent plate at the head of door 131-1 against the existing concrete wall with the doorframe tight to the underside of this plate. A) A9.11 notes door 131-1 as 7'-0" high with frame type "E". This results in an overall frame height of 7'-2". This is well below the top of masonry opening noted at 11'-0" on detail 16/A9.14. Elevation 4C/A7.13 at door 131-1 shows a completely different frame configuration that appears to be at 11'-0" elevation. Intent is not clear. B) S2.12 references detail 7/S3.08 through this doorway. Detail 7 shows additional WT6x29 members below this bent plate at 15" o.c. These WT shapes will conflict with the door frame as detailed on 16/A9.14. C) Detail 7/S3.08 notes the rough opening is to be demolished per Architectural. AD2.21 notes a 5'-0" wide x 11'-0" tall MO for door 131-1. A9.11 for door 131-1 notes door width as 3'-0" and references frame type "E". A9.12 dimensions the overall width of frame "E" as 6'-3". Needs updated.	A) , B) and C): details have been revised	9/4
A2.10, A2.11, S2.11, M3.10, M3.11	C12:	M3.10 and M3.11 at grid area C1-N5/NE-NB shows a 28x68 up and a group of 12" and 8" round ducts up. A) S2.11 shows these areas "X'ed" out as shafts, but it also shows the shading through these shafts indicating an infill slab. Suggest M2.11 removes the shading in these areas for clarity. B) A2.11 shows in room 125A and additional floor opening for a ladder access. S2.11 should show this floor opening and Architectural should provide an enlarged plan of this area showing safety railing configurations.	A) S2.11 has been modified to remove shading at mechanical/electrical openings. B) Opening configuration has changed and safety railing is currently shown on A6.20 LD4	9/4

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A2.12, S2.12, M3.11, M3.12	C13:	M3.11 and M3.12 at grid area C1-N5/NE.5-NC show various locations where ductwork is rising from 1st floor ceiling through 2nd floor deck to Mechanical room 208. S2.12should coordinate deck openings with Mechanical for clarity. One deck opening on S2.12 isn't being used on M3.11/M3.12, or A2.12 (grid N5/NE.5). Needs updated for clarity.	Structural drawings revised to match latest mechanical opening info sent 7/27/2017.	9/4
AD7.11, S3.10, M3.11	C14:	Demolition elevations 1 and 2/AD7.11 and concrete shear wall elevation 4 on S3.10 need updated below the 1st floor level showing openings for M3.11 HVAC ducts that will need to route through this wall at the 1st floor ceiling. Example locations: between grids ND-NE, NK-NL, NL-NM, and NO-NP.	All openings in the concrete shear wall on elevation 4 have been coordinated with mechanical. See updated Sheet S3.10.	9/4
A2.13, S2.13, M3.12, M3.13	C15:	M3.12 and M3.13 at grid area N4-C1-NJ-NC show various locations where HVAC ducts are passing up from 2nd floor ceiling through 3rd floor level. A) S2.13 shows much of this area as 2" x 3/16" metal grating, but other areas are concrete. The openings through concrete and grating should be shown (and any additional steel supports) for clarity. B) AD2.13 should also show floor openings through existing concrete decks. C) M3.12/M3.13 near grid N4.5/NH shows a 50x20 up. A2.13 and M3.13 show the proximity of this duct to the ladder up to roof access hatch. Suggest reviewing this layout with intended roof access route to ensure no conflicts occur with future maintenance.	A) S2.13 will show opngs. Grating specs call for a fully engineered floor including additional supports for opng. Will indicate in the reconciliation set B) Has been coordinated. Ladder has been moved	9/4

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AC2.21, A2.21, A9.14, A9.51, S2.21, S3.11	C16:	AC2.21 at the north wall of room 131 shows the exterior wall to receive a 3-hour rating with a 3-hour accordion folding fire door south of the exterior wall. A) Not sure why the exterior wall will require a 3-hour rating, but if this is the intent, A2.21D should update wall types and provide details showing how to achieve this rating along the north wall room 131. B) Elevation 8/S3.11 shows the concrete shear wall at the north wall room 131. At the first floor, it notes to align the edge of new wall 1" back from edge of existing masonry at windows. Detail 19/S3.08 is referenced which shows the concrete flush with existing masonry opening. C) Architectural needs to provide details at the north wall room 131 windows showing relationship of new concrete shear wall with windows and window trim. The only Architectural detail we have found showing new concrete shear wall at windows is detail 26/A9.51 which notes to hold Structural shear wall back 4" from existing rough opening. Need to coordinate what is wanted around these windows. D) Detail 20/A9.14 shows the new concrete shear wall to extend past the rough opening at doorjamb 131-1. Elevation 8/S3.11 doesn't indicate where the end of the shear wall occurs at this door jamb. E) A similar condition occurs at the 2nd floor on elevation 8/S3.11. Elevation 8 at the window opening states the east face to have edge align with edge of existing concrete wall and west side to hold back 1". Need to coordinate what is wanted around the windows and update.	A) 3 hr is required so that north wing openings can be maintained without further rating, including the glazing around the entry vestibule. Rating along the exterior wall of 131 is achieved by an accordion fire door 131-3 B), C), D) and E) now have new details.	8/11

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A2.21, A8.21, A9.04, A9.14, S2.22, S5.10	C17:	Detail 16/A9.14 references a ceiling rough opening elevation of 11'-0 ½" for the folding fire door. A8.21 doesn't provide any starting work point elevations for the sloping ceiling, but assume it is around the 11'-0" elevation. The existing floor framing is shown on detail FC-06F/A9.04 which will have a bottom of framing elevation of +- 11'-11 ¼". This leaves around 11" from bottom of existing framing to rough opening. S2.22 notes the operable partition support is per 22/S5.10.	Details have been updated	8/11
A6.12, A9.11, E5.11, Spec 87100	C18:	A9.11 for door ST2-2-2 on the "comments" column states this is an electric hold open gate. Spec 87100-page 26 of 30 on the hardware schedule references an "S6" type of door stops (electro-magnetic). Detail 11/A6.12 shows the swing direction of this gate and the general location of the hold open device on wall. E5.11 doesn't reference a "mag-hold open" device at this location.	Has been coordinated	9/4
M1.10	C19:	NJ/N3 calls for a 4" waste up (4½" OD) A2.10D shows this as a 4" wall	Will adjust to a 6" stud	8/11
M1.10, AD2.10, S2.10	C20:	Developed length of sewer from boiler room to exiting building at N1 is approx. 285' which per note 2 is a fall of 71". A) Trench saw cutting and removal as shown on S2.10 and AD2.10 is not wide enough to meet WISHA trenching standards. Will need for bidding purposes. B) On M1.10, the sewer piping crosses grid N3 at (4) different locations. Grid N3 contains the existing shear wall per elevation 4/S3.10. Detail 28/S3.01 shows pipe sleeves through foundations, but this is for new conditions. What is the detail for these pipes crossing existing?	A) GCCM will coordinate additional saw cut beyond what is shown on AD2.10 with mechanical sub. B) Mechanical to route under existing shallow footings/ 18" .	9/1

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M1.10, S2.10, AD2.10	C21:	On M1.10 room 006 the acid waste as shown will be conflicting with footings per S2.10 and details 24, 28, and 30/S3.07.	Mechanical to route through cabinet and down east face of existing footing.	9/1
M1.30, S3.20, A2.31D	C22:	There are several waste risers shown along grid SJ. On M1.30, the 4" W up near grid S1, the FCO near grid S2 and 2" W up near grid S2.7 are shown to rise in an existing concrete wall. The small alcove type Mechanical chases start +-3' AFF of tunnel then are open to the upper level.	Routing update to be east of SJ	9/1
M2.10, AD2.10, S2.10	C23:	M2.10 references Flag note 3 at (8) locations noting to tie into RWL below slab. These slab areas are not on the structural concrete demo S2.10 or AD2.10. Mechanical demolition drawings were not provided and it isn't clear if this RWL tie-in is to occur below slab or within the wall cavity.	Will revise note to tie into above slab	9/1
M2.11, A2.11, A2.11D	C24:	M2.11 riser room 125 does not show chase in SW corner of room, as on A2.11D. This should be added to ensure there is adequate room for all Mechanical components and future maintenance.	Chase now shown for boiler flues. Other mechanical components routed in chase in Staff Toilet 123.	9/1
M2.11, A2.11	C25:	Kitchen room 111B shows a refrigerator in NE corner. Does this need a P-23 for an ice maker?	Refrigerator tagged and CW connection provided	9/1
M2.12, A2.12D	C26:	M2.12 near grid NE/N4 shows a 4" V dn. That wall is scheduled on A2.12D as a 4" stud. Need larger wall stud for this pipe size.	Will adjust to a 6" wall	9/1

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M1.21, M2.21, A2.21, AD2.21	C27:	M1.21 and M2.21 near grid NE/C2 shows a 4" W up. The new wall framing is sitting on an existing foundation wall. How is this pipe to rise into wall? AD2.21 shows dashed lines through the existing wall in this location, but what this represents isn't clear.	First floor 2" W dn moved to avoid foundation wall	9/1
M2.21, A2.21, AD2.21	C28:	M1.21, M2.21 near grid C2/CC.8 shows a 2" waste up. This waste pipe is located within an existing wall cavity that doesn't show to be demolished per AD2.21. Needs updated.	Routing updated to connect between C2 and C3. Waste still routed in cavity	9/1
AD2.21, S2.21, M1.21, M2.21	C29:	AD2.21 in classroom 114 shows dashed lines on the SOG at east, south and west walls. A) S2.21 doesn't reflect any of this SOG demolition in these areas. What is wanted, just SOG or part of foundation? B) S2.21 near grid C2/CB.7 notes to core (3) 5" max. holes. Assume this is for piping, but M1.21 doesn't show three pipes in this area?	A) This footing is part of existing seismic system and is not to be demolished. Piping rerouted to go under existing footings. B) The core drills have been adjusted for kitchen sink plumbing. General contractor to coordinate (if not needed, they may be deleted later).	9/1
AD2.30, S2.30, S2.31, M1.30, M2.30, M3.30, M5.08	C30:	SF-SG/S2 shows 4" RWL and 4" W rising north of S2. The 4" RWL routes across tunnel, from south to north. S2.31 calls for W10 X 12 beams the RWL will have to run under. M5.08/4 and A4.34/2 show duct tight to structural beams. Based on existing elevations in this tunnel, this piping will be down around the 5'-0" AFF elevation.	Routing updated not to cross mechanical room	9/1

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Project Name: Lincoln High School Modernization

Construction Manager: Adam Wilson

Consultant: _LRC Consultants__	Date: 6/19/17____	Program Documents	
		Schematic	
		Design Development	
		Construction Documents 95 %	X

Drawing or Spec Ref.	Item No.	Coordination Comments	A & E Response	Resolution Date
AD2.31, S2.30, S2.31, S5.03	C31:	S2.31 at grid area S2/SE-SG shows to install new W10x12 beams in E/W direction tight to existing 11 ½" x 10" concrete beams. The WF beams are shown to install on a ½" x 13" x 2'-3" plate bolted to the existing concrete beams. The existing condition for the concrete beams has them poured directly into the floor slab. The result is a 45° slope from bottom of beam to underside of slab (see attached photo). It also is an imbalanced slope with one side having a +-3" depth and the other having a +-5½" depth. A) Need to reconfigure beam attachment detail. B) Need to clarify where the demolition is to occur near these existing beams. Does is saw-cut flush with face of beam cutting off the tapered concrete, or does it need to be out from the face some distance to maintain integrity of beam? 	A) Structural steel has been modified at two of the locations where this condition occurs to eliminate steel beam as the entire slab is being removed between beams. B) Lydig to scan beam slopes to verify no beam rebar in sloped portion. If no beam rebar there, it is acceptable to cut slab/slope flush with beam edge. 9/1 Lydig provided field measurements of each end of beams and at each beam location. Dimensions appear to have more tolerance than architectural model except at grids SA and SH. SA doesn't is not congested and has lots of room to maneuver. SH is congested but clearances appear to be within tolerances of what was in the model. Suggest keeping an eye on this as shop drawings are being developed.	9/1

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A2.31D, A2.32D, M2.31, M2.32	C32:	M2.31 and M2.32 near grid SD/S2 shows a 4" RWL in a 4" wall per A2.31D and A2.32D. Wall needs to be bigger	Will provide a 6" wall	8/11
A2.30, A8.31, M3.30, M4.30, M4.31, E2.30	C33:	M4.30 shows the routing of the HVAC piping in the south wing basement. Due to the amount of ductwork shown on M3.30, this will have many pipe rises/drops routing around the ducts requiring multiple maintenance requirements for air relief in the bends. A) Suggest considering routing this main piping on M4.31 ceiling space and dropping down in the various mechanical chases to the units in the basement. This will have a cost savings for labor and materials and future maintenance with easier access. B) E2.30 shows the lighting layout in the south wing basement. This layout will not result in much lighting for the basement. Much of the lights shown will be blocked by HVAC ducts on M3.30 and future access to replace many bulbs will be nearly impossible.	A) Hydronic mains to remain routed in the basement B) Note has been added for clarity	8/11
M2.33, A2.33D	C34:	M2.33 the 4" RWL rising between classrooms 361 and 362 is in a 4" wall per A2.33D. Wall needs to be bigger	Will provide a 6" wall.	8/11
AD2.40, S5.16, M3.40	C35:	Detail 3/M3.40 references Flag note 7, Saw cutting of concrete floor, demo and patching of walls not addressed. Not shown on AD2.40 or S5.16. Who is responsible for demo?	Mech drawings to indicate that mech sub is responsible for this work. As general demo work has already been bid.	8/11

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AC2.41, AD2.40, S5.16, M3.40	C36:	The following comments apply to the Gym slab demolition. A) Detail 1/AD2.40 dimensions the north opening as 1'-8" wide x 3'-6 ½" long. Detail 12/S5.16 dimensions same opening as 1'-8" x 3'-7" and detail 24/S5.16 as 3'-6" x 1'-4". M3.40 notes the (3) flues in the north chase to be 12" Ø. This will be 14" Ø OD after metal jacket insulation wrap. The 0" clearance space will require 3'-6" which isn't recommended. B) AC2.41 shows these vertical chases to have a 1-hour fire rating. RCP's of this gym area have not been provided. How is the underside of the chase sealed off at the basement level? Detail 2/A2.40 doesn't show wall framing for the vertical chases to frame to the basement FF level. Intent is not clear.	A) Flues are 10" diamter, opening works B) A rated soffit has been provided	9/1
M5.01, A2.10	C37:	M5.01 General note 1 states the east boiler room wall and door layout as shown is proposed modification from floor plan for improved accessibility. Is this note for Engineers reference? Has this now been confirmed? The M5.01 layout is slightly different from A2.10 regarding concrete wall at SE corner at ET-01, and NE corner at UH-01. Not sure what this note is to mean to bidding contractors.	General Note 1 has been removed. Concrete walls now match	9/1

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S2.10, S2.20 S2.30, M1.10 M1.30, M3.10	C38:	Structural and Mechanical need to coordinate not only the locations of the floor removal but also approx. width that will be needed. The trench's where the sewer leaves the north and south wings are over 5' deep (north is 6'-6"). This will provide bidding contractors a more realistic idea of quantities. Some removal and widths need to be addressed. If possible, at the south wing, suggest a partial demolition of the exterior wall on grid SA/S1.7-S2 to provide a better access into the basement. There is only +- 7'-3" of available head clearance in this basement from FF to underside of concrete beams and this may be considered confined space work by AHJ. With the amount of trench excavations and mobilization of larger Mechanical components, an opening at this end may be a labor/schedule enhancement to the scope of work in this basement. If not the exterior wall, potentially consider a larger temporary floor opening.	GCCM will look into the removal of east wall. Structural Plan note 1 states that the precise demo extents are to be determined by the contractor.	9/1
A9.31, Spec 23 82 36	C39:	There are several locations where the fin tube is behind the cabinets and an enclosure is not needed. Details 1, 2, 3, 4, and 8/A9.31 states the linear bar diffuser in the top and base of the cabinets is by DIV 23. These are not specified	Will add diffusers at casework	9/1
A2.12, AD3.12, Mechanical	C40:	A2.12 grid NH opening from corridor 200B into 200A is shown as a 5'-0" opening (per scale) but the doorway 208-1 is a 6'-0" door. Is this potential pinch point wanted, or should the exterior wall at the window demolish slightly more? Elevation 2/AD3.12 shows to take the window width out only.	No ducts are routed between Corridor 200B & 200A	9/1

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Mechanical piping, Architectural, Spec 64100, 115300, A9.31	C41:	The following comments apply to the science room cabinets throughout. A) M2.23 room 342 is an example room where P-11 (air/gas turrets) fixtures are referenced. The location air/gas outlets not shown on any architectural drawings. Suggest providing a "typical" plan view of science room student countertops to show layout of fixtures. B) Suggest providing enlarged plans and elevations of instructor's desks in science rooms. C) Details 1-4, 7 and 8/A9.31 are sections through casework at science rooms. All details at countertops and backsplashes reference specification 64100-PLAM-5 laminate surfaces with marine grade plywood cores. It could easily be interpreted for all science room cabinets to receive a chemical resistant PLAM per Spec 64100-2.9.B. However, Spec 115300-2.2 and 2.3 identify epoxy resin countertops, backsplashes, and sinks. It isn't clear if epoxy resin tops and splashes are wanted as all the details are showing PLAM. Spec 224000-2.2.J.1 identifies fixture P-10 as epoxy resin sink. If epoxy resin is not intended to be used, need to coordinate with Mechanical to provide different sinks and delete section 115300 for clarity. Otherwise details need updated. Intent is not clear.	A) Locations are now on architectural drawings B) There are no instructor's desks C) Notes have been updated to show location of PLAM vs epoxy.	9/1
Architectural, E3.23, E3.24	C42:	E3.23 along grid C1 references a power connection for (3) fire shutter. E3.24 along same grid C1 references connections for (5) fire shutters and on grid C10 references another connection for a fire shutter. Architectural doesn't show any fire shutters at these locations. Intent is not clear.	Has been coordinated	8/11

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M3.40	C43:	The following comments apply to new Gym steam boilers. A) M3.40 Detail 4, the BOD boiler, Cleaver Brooks, requires 46" in front and 49" in back for maintenance, with recommended spacing of 76" from wall to center of boiler and 103" center to center of boilers. The layout shown on detail 4/M3.40 doesn't allow for these clearances (per scale). B) The existing condition along grid GK/4-6 is chain link fencing. Rather than closing this up with walls and single doors, suggest installing an overhead door or a pair of doors at least in one bay for future maintenance access if something large needs removed/replaced. C) How are these boilers going to get mobilized into the basement? These boilers are 9'-2" long x 5'-6" wide x 5'-9" high. The exterior doors into the stairways are 6'-2" x 6'-8" which gets it into the building, but the stairways are only 5'-6" wide. The south stair has a stairway chairlift on the rails making it even narrower. Might have to consider a floor opening to drop into place.	A) The 46" clearance in front and 49" clearance in back (dimensions JJ and LL in mfr Boiler Book) is measured from the front and rear of the shell. Subtracting the front and rear lagging dimensions (dimensions D and E) leaves a required 22.5" off the front and 30" off the back, which we have. Reconfigured boilers to provide required 42" aisle clearance to side and between boilers. B) This was address in addendum 1. Opening in the exterior wall was provided along grid GL in the basement.	9/1
C3.01, M1.30	C44:	C3.01 sanitary sewer shows to connect to building with 10LF of 6" and 10LF 3". M1.30 shows 6" W and 4" AW connecting to the 6" W indicating that Civil would need to provide a single 6" W connection only.	Has been revised to match mechanical	9/4
C2.00, C2.01, E1.01, E8.06	C45:	C2.00 and C2.01 need to provide telecommunication vault sub base to storm water system at (4) locations. See E1.01 and E8.06.	Has been coordinated	9/4

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C2.00, Architectural, Structural	C46:	The following comments apply to the 6" footing drain at west side of central wing. A) What is the existing footing elevation? Structural has not provided this information. B) Need to provide information as to location of existing footing drain referenced. C) This proposed exterior area is above finish floor elevation on interior. After site grade excavates for new footing drain, should new foundation waterproofing be provided? If so, suggest providing a detail showing intent.	A) Existing footing drain elevation at connection added to C2.00. B) Extents of existing footing drain around North Wing added to C2.00. C) Added Detail 13/A5.32 for new waterproofing along west side of Central Wing.	9/1
L1.01, A9.11, A9.12	C47:	L1.01 gate schedule for gates 2 and 3 indicates these receive panic hardware and G102 and G103 will be added to Architectural Door Schedule. This has not been completed.	L1.01 gate schedule was updated and coordinated with Arch CDC	8/11
L1.03, S3.01	C48:	L1.02 plan note references structural detail 13/S3.01 for retaining walls. L1.02 shows to provide 6" wide walls. Detail 13 shows wall to be 12" wide.	Walls are 12" wide on L1.02 (CDC)	8/11
Spec 123554, M3.31, A7.31	C49:	Section 123554 identifies flammable and chemical storage cabinets. Part 2.6.F and G identify vents off cabinets to connect to exhaust ductwork under Division 23. M3.31 doesn't show any exhaust duct at the flammable storage cabinet in room 161A (see elevation 2C/A7.31).	Recommend not venting cabinets unless required by AHJ or SPS.	9/1

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M2.12, M2.13, M2.30, M2.33, Electrical E3 series	C50:	The following comments apply to trap primers. A) Sheets M2.12, 2.13, 2.30, and 2.33 show locations of trap primers in Mechanical rooms. The respective Electrical power plans for these areas have not feed power to these primers per detail 3/M9.04. B) There will probably be another trap primer in the north wing Mechanical room at basement, but none are shown yet. If added, need to coordinate location with Electrical. C) How will the emergency eye-wash stations floor drain traps be handled in the science rooms? These are isolated locations that would not be figured to have piping routed to them. Needs updated and coordinated if Electrical is involved.	A) Sheets E3.12, E3.13 indicated trap primers on the 95% set. Trap Primers have been added to E3.30 and E3.33 in the locations shown on the mechanical drawings B) Trap primer panel added at 1st floor central area of North wing that can serve emergency fixture FD. Will coordinate with Elec C) Trap primer panel added at 1st floor central area of North wing that can serve emergency fixture FD. Will coordinate with Elec	9/1
Spec 122400, A10.12, A10.22, Electrical	C51:	Section 122300 identifies motor operated window shades. A10.12 and A10.22 are the only locations where we find reference for this system. The finish schedule for rooms 202 and 238 identify “MRS” for window covering. This is an extremely obscure location to reference a scope of work of this magnitude. Suggest providing plan notes on floor plans and elevations where these shades are used, provide details at existing library windows and coordinate with Electrical for power feeds and control stations.	RCP now has a hatch for motorized and manual shades. Power has been coordinated with electrical	8/11

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Spec 116623, A2.40, A8.40, E7.07	C52:	Section 116623 identifies a motor operated gym divider curtain. Cannot find on the drawings where this item is to be installed. Assume it is in the existing gym, but floor plans and RCP plans of this area were not provided. Intent is not clear.	It is in the east gym building and is described as an alternate in 01 23 00 Alternates.	8/16
Spec 115119, Architectural, Electrical	C53:	The following comments apply to the Library area. A) Section 115119 identifies a book theft protection system. Part 3.2.E notes to make a hard-wiring Electrical connection at floor receptacle and remote alarm disconnect connection to librarian station. Is the connection at the librarian station a WIFI or hardwired connection? If hardwired, E3.12 doesn't show a feed for this. B) E3.12 in room 202 has a plan note stating to route conduit in raised floor assembly and has a bold dashed line around grids NM-NA/N1-N4. What is this? Section 96900 identifies an access flooring system, but FFP A10.12 doesn't mention this system, provide a symbol in the legend, or have an abbreviation for this system. Cannot find where this access flooring is used anywhere. If not used, it will affect the Electrical rough installations of conduits. If used it will affect wall framing, doors, and relites. Intent is very unclear.	A) Book detection was added between 95% CD and electrical permit submittal. Notes have been added to coordinate routing of conduit in existing floor with architect and structural between book detection stands and between book detection remote alarm connection at librarian station. B) Notes associated with raised floor system have been removed.	7/24

C54:

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A2.21, A4.22, A9.11, A5.02, A5.13, S2.22, S3.08, S3.11	C55:	The following comments apply to the shear wall east wall commons. A) S3.11 EL-6 references detail 8/S3.08. Detail 8 shows the steel framing for the canopy roof tight to the underside of existing and new concrete header. Section 24/A5.13 through this area shows to place the top of W6x16 beams flush to top of storefront frames. Steel locations need coordinated. B) S2.22, EL-6/S3.11 and detail 8/S3.08 show the new concrete shear wall to extend flush to existing masonry head, jamb, and sill. Typical Architectural details at windows on A5.25 show to hold back the shear walls 4" from face of rough opening. Need to review if the flush condition or set back condition are wanted for EL-6 shear wall. C) A2.21 references doors 138-2, 3, 4, and 5 at these vestibules. A9.11 references frame type "ISO2" for doors 138-2 and 3 and frame type "B" for doors 138-4 and 5. These frame types don't work to the framing conditions shown on A2.21. Needs updated. D) S3.11 at EL-6 at top of wall notes to align edge of new wall 1" back from edge of existing masonry opening. Details 1, 2, and 3/A5.25 show to hold the concrete back 4" from face of masonry opening. E) S3.11 EL-6 references detail 14/S3.08 at top of shear wall. Section 1/A4.22 doesn't show this concrete configuration. F) A9.11 should update head/jamb details and on comments column should note to see storefront schedule for these frames.	A) Has been coordinated B) Has been coordinated C) Frames has been modified D Has been coordinated E) Will update wall section F) Has been noted	9/1

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23 22 23 2.1 G. 4&9	C56:	Calls for the Condensate Pumps to have factory provided **motor controller and disconnect switch.** Per **Note 1** on the Mechanical Equipment Schedule, sheet E0.04 calls the Electrical Contractor is to provide the disconnect.	Electrical to remove fused disconnect/motor rated toggle switch for these units and revise mechanical equipment schedule accordingly.	8/8
23 52 16 23 52 39	C57:	Part 2.4 A. calls for these units to be provided with factory provided disconnect switch or circuit breakers. Per **Note 1** on the Mechanical Equipment Schedule, sheet E0.04 calls the Electrical Contractor is to provide the disconnect or motor rated toggle switch.	Electrical to remove fused disconnect/motor rated toggle switch for these units and revise mechanical equipment schedule accordingly.	8/8
E3.10 E0.04, Mechanical	C58:	Boiler Room 014A – Pumps PU-1 through PU-3 are indicated in the space. The Pump Schedule on E0.04 calls for the units to be provided with VFD's provided by Division 23. Per the schedule and **Mechanical equipment Schedule Notes** on E0.04 (note 1) the pumps shall also have a Fused Disconnect provided by the Division 26 contractor. **23 09 00 2.21 U.** VFD's are to be provided with **"Input Disconnect Device"** (non-fused disconnect.) Is there a redundancy issue here regarding disconnects?	Electrical to remove fused disconnect/motor rated toggle switch for these units and revise mechanical equipment schedule accordingly.	8/8
E5.41, Mechanical	C59:	Mechanical Attic 260 – there are two unlabeled Duct Smoke Detectors shown in this space. What units are they monitoring?	These are replacement duct smoke detectors for existing to remain mechanical units.	7/24

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E5.51, Mechanical	C60:	Mechanical 510 - there are two unlabeled Duct Smoke Detectors shown in this space. What units are they monitoring?	These are replacement duct smoke detectors for existing to remain mechanical units.	9/1
E5.61, Mechanical	C61:	Mechanical Attic 260 – there are two unlabeled Duct Smoke Detectors shown in this space. What units are they monitoring?	These are replacement duct smoke detectors for existing to remain mechanical units.	9/1

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AD2.10, AD2.11, AD2.12, S2.10, S5.20, S5.21	C62:	AD2.10-AD2.12 reference demolition notes #7 at east, north, and west existing steel brace frame elevations. A) Note #7 states to remove framing. This is quite misleading as "framing" could easily be interpreted as metal/wood studs not HSS diagonal braces. Suggest clarifying what is wanted a bit more. B) Exactly how and to what extent are the diagonal braces to be removed? BF elevations on S5.20 all reference details on S5.21 showing new gusset plates for new diagonal brace system. There are existing gusset plates welded to the webs (on one side) of existing columns with stiffener plates on top. How much or should any of the existing gusset plates be removed? If necessary, could a new plate be welded to existing plate to create enough gusset for what will be needed for new braces? If not, need to clearly explain what is removed and to what extent to ensure existing columns are not compromised. C) There will need to be additional floor removal at these brace frames as the gusset plates and some diagonal braces are buried in the floor. 	B) It is not possible to weld additional plates to the existing gusset plate to create a new gusset plat. All existing diagonal braces, braced frame beams, gusset plates and connections will be removed	

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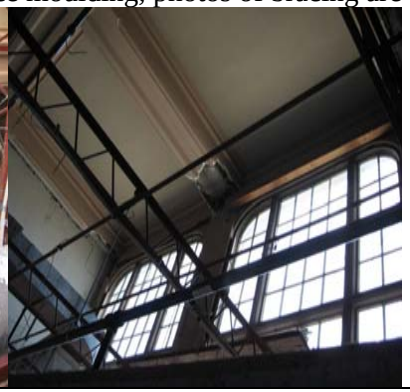
AD8.02, A8.12, Structural	C63:	AD8.02 in existing library notes to protect historic ceiling above dropped ceiling. A8.12 shows the configuration of existing ornamental plaster cornice moulding and references detail 16/A9.72. Detail 16 shows the existing cornice to remain and install acoustical fabric between cornices. The existing condition above this ceiling contains extensive added Structural horizontal HSS diagonal braces (elevations not known, but appear to be below top of windows some distance) and random column/posts up to existing roof. The installation of these Structural components has destroyed random portions of this existing plaster ceiling. The extent of the damage is not known as we were unable to completely view the entire area in the limited time we were at the site. S2.14 shows some existing horizontal bracing to remain, but it appears to extend farther than what is shown. Need to identify patching of plaster if this is to be rebuilt. Attached photos show a sampling of the existing condition of plaster cornice moulding, photos of bracing are too dark.  	Will coordinated	9/1

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Spec 33713, Structural	C64:	The following comments apply to Section 33713-Shotcrete A) Part 2.2.B.1 identifies shotcrete mix with a compressive strength of 400 PSI. Structural General Notes require 4500 PSI concrete exposed to weather and 5000 PSI for concrete shear walls. B) Part 1.10 coordination references section 32100 for reinforcing steel. Should this read 32000? Section reference 71326 waterproofing should read 71300. C) Part 2.1.D materials, identifies fiber reinforcement as specified in Section 33000. Section 33000 or Structural General Notes don't address fiber reinforcement.	Specs have been corrected	
General Architectural, Structural, Mechanical	C65:	We cannot any details showing how to support Mechanical HVAC and Piping systems to the existing structure. Some locations have concrete decks which provide an easy attachment, but others are wood framed joists with GWB installed on underside of joists. Depending on what type of support for these systems is required will determine the extent of existing GWB demolition and replacement (which presently isn't identified). We are under the assumption that the existing GWB below the joists is required to maintain a fire rating of the floor system. If this assumption is not valid, then only additional demolition needs to occur. Need to provide Mechanical hanger support details to existing structure.	Note has been added that mech sub to provide unistrut / demo and repair ceiling to get to structure abv	8/24
AD2.40, A2.40, S5.16	C66:	AD2.40 in stage shows to remove all fixed seating. A2.40 notes to infill over existing sloping concrete floor. S5.16 doesn't provide a floor plan of this area and doesn't identify any of this interior concrete. Needs updated.	Has been coordinated	8/24

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A9.56, Structural	C67:	Detail 4/A9.56 shows an angle configuration supporting a bench and notes to coordinate with Structural. Structural doesn't show this angle. Needs updated regarding angle size, dimensional configuration and attachment to floor/wall.	Information now exist in architectural details	
Spec 102800, Electrical	C68:	Section 102800-1.5.C notes to coordinate with Division 26 for Electrical power supply for electric hand dryers. Electric hand dryers are not identified in Section 102800 to be supplied and Electrical doesn't show any power feeds in toilet rooms for these devices. Suggest deleting language for clarity if not used.	Paragraph referencing power supply for electric hand dryers has been deleted.	8/11
AD8.02, A2.32, A7.33, A8.32, A9.11, A9.12, S2.32, S5.02	C69:	AD8.02 at classrooms S208, 209, 210 all note to protect in place decorative plaster beams. A) Elevations 1C and 2D/A7.33 show doorframe 271-2 with a window/relite frame above it. The relite isn't designated on any floor plan, but if type R5 on A9.12 is the intent, the top of frame is at 15'-11". Elevation 1C/A7.33 shows the bottom of these decorative plaster beams is at +-14'-10" (per scale). AD2.32 should note some selective demolition along grid SE and a top of wall detail above relite R5 showing how to demo and finish around the decorative beams is needed. B) S2.32 shows a post/beam frame at this door/relite frame area for support. The columns are shown to install full height to underside of existing roof beam. This will require additional demolition and patch back of plaster to install this column which isn't identified.	A) Has been revised and coordinated B) Has been revised and coordinated	9/1

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		Design Development	
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A2.11, A2.31, E0.01, E3.11, E3.31, E5.11, E5.31, Spec 55000, 87100	C70:	The following comments apply to exterior electronic entry doors. A) A2.11at doors 100A-1 and 100B-1 identify a bollard with push button actuator and card reader. A detail is needed showing these components and the intended installation elevations on the bollard for clarity. B) Doors 100A-1, 100B-1, 160A-3, and ST8-1-2 all have the note with the bollard, push button actuator, and card reader. E3.11, E3.31 don't show the push button actuators at any of these doors and E5.11 and E5.31 show wall mounted card readers. C) E0.01 Security system symbols identifies wall-mounted controllers only. Suggest adding a note for controllers on bollards as well for clarity. D) Section 87100- hardware schedule for door 160B-1 identifies a closure type "AO3" (push button actuator). A2.31 doesn't identify a bollard or note this actuator. E3.31 doesn't show power or push button to this door either. E) E5.31 shows a card reader at doors 160A-3 and ST8-1-2. Section 87100 hardware schedule doesn't identify a card reader system for the locksets on these doors. F) E5.11 shows a card reader at door 111-2. Section 87100 hardware schedule doesn't identify a card reader system for the lockset on this door.	A) No Telecom B) E5.11- Card readers moved to bollards. E5.31- Architect to verify if card readers are bollard or wall mount. C) Bollard locations are identified on the drawings. D) No Telecom E) & F) Electrical and Arch have been coordinated	8/11

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AD2.31, A2.31, A8.31, S2.32, S5.11	C71:	AD2.31 at room S117/S116 common wall notes to cut wall up to 10'-4" tall. A) A8.31 notes to start the ACP-1 ceiling on the north end at 10'-10". This existing wall will be below part of the noted ceiling. B) S2.32 shows to install MC18x58 channels on either side of this wall 1" up from cut opening per detail 6/S5.11. Detail 6 also shows the top of MC channel to pass 1" below the existing concrete beam perpendicular to the MC channels. If the bottom of channel is at 10'-5", the top of channel is at 11'-11". The elevation of 2nd floor is 113'-6" and the existing 13"x30" beam is probably cast into this floor makeup same as other beams around this building. If that is the case, the bottom of existing 30" beam is at 11'-0". The MC channels will not pass below this existing beam at noted elevations. C)	A & B) This was all coordinated through changing in ceiling heights. Structural framing was left as is.	9/1
S2.32, A8.31	C72:	A8.31 in rooms 169, 169A, and 171 show a narrow line for a patient hoist? A) Need to identify this item and provide installation detail. B) S2.32 at same area shows a WT7x24 for patient hoist support. Need details showing how to attach this WT to the structure and what is involved with tying it to the track system below.	Hoist manuf. will provide all necessary steel supports. In North Wing, structural for manuf. attachments. In South Wing, Hoist manuf.to provide as necessary.	9/1
Spec 55213, 55313, Structural	C73:	Sections 55213 and 55313 both identify types 1, 2, and 3 bar gratings, but the product types identified are not consistent. Suggest having the bar grating only located in the bar grating specification (Section 55313) and coordinating what is specified with what is noted on the drawings for all locations at interior and exterior. Structural is potentially referencing different types of grating than what is specified, but it isn't clear as there are multiple types of gratings specified.	Grating in 05 52 13 is SS and solely for handrails. All other bar grating in the project should be referencing 05 53 13.	9/1

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A3.16, Civil	C74:	Elevation 3/A3.16 shows two new downspouts from new Mechanical room roof on grids SD and SF. Civil needs to pick up these downspout drains.	Has been coordinated	9/1
A8.10, A8.11, E6.10, E6.11	C75:	E6.10 and E6.11 in corridors000D and 100F show to install cable tray in N/S direction with a branch to the south. This cable tray is in a GWB ceiling per A8.10 and A8.11. Elevations 5A, 6A/A7.11, and 1A, 2A/A7.14 don't show the cable tray below the ceiling. Is the intent to route cable tray above the GWB ceilings? If so, suggest identifying the locations and quantity of access panels to this cable tray system.	E6.10- Cable tray is located above GWB ceiling with access hatches every 10', conduits are routed to access hatch locations. E6.11- Cable tray has been deleted and pathways switched to conduit.	8/24
A2.12, A2.13, A8.12, M2.12, M2.13	C76:	M2.13 in room 301 shows (2) floor drains. These drains are installed in metal grating. A) Need a detail showing how to attach floor drains to metal grating. B) The drain at the west end of room will be above room 209 and corridor 200A. Not sure what else other than condensate these drains are picking up, but if there is any kind of a spill on this level, it will drop to the ceilings of these rooms below. Will some type of water protection barrier above these rooms be wanted?	A) Coordinated with mech B) Coordinated with mech	8/11

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AD2.33, A2.33, A5.02, A5.72, S2.33, S5.02, S5.11, M2.32, M2.33, Spec 89100	C77:	The following comments apply to the Mechanical penthouse grids S1-S1.7/SB-SH. A) AD2.33 at this area notes to selectively demolish roof as necessary for Mechanical penthouse installation. S2.33 near grid SG/S1.5 notes new sheathing per plan note 1 which installs new ¾" plywood sheathing over the entire roof area. Details 27 and 30/S5.11 show to install new sheathing on existing decking. This will require the entire roofing material to be removed. AD2.33 should reflect this. B) Details 27 and 30/S5.22 note the plate sizes for beam attachments to concrete walls. Typically plate dimensions are referenced as W x H. The dimensions noted appear to be backwards from the intended installation. Suggest reversing plate dimensions for clarity. C) Details 27 and 30/S5.11 should provide a section showing plate against the wall and beam in section. Where does the beam install on this plate? Is it centered in the overall width, or something else? D) S2.33 shows HSS 10x4 columns on grid S1.7 at (9) locations. What is the height of these columns? Details 27 and 30/S2.33 and S2.34 don't indicate where top of column terminates. Need a top of column detail. E) S2.33 notes to install 2" x 3/16" grating over the entire penthouse area. Detail 8/A5.72 shows to stop the grating on the first beam in from the exterior wall along grid S1 on an angle attached to beam. S2.33 along grid S1 references detail 30/S5.11 typical which doesn't show this continuous angle for grating termination. Need to update S2.33 grating layout and details. Mechanical penthouse continued on next page…	A) Will update in reconciliation drawings B) Revised C) Revised D) Will coordinate E) Struct drawings has been update extent per arch. detail.	9/1

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		Mechanical penthouse continued from previous page… F) S2.33 3'-9" south of grid S1 shows HSS 4x4 columns located on gridlines. It appears the columns are centered on the W12x26 beam below in E/W direction with the wall framing per detail 30/S5.11. Detail 8/A5.72 shows the wall framing offset slightly from center of beam. No dimension is provided locating wall framing, so it isn't clear if the columns will be contained within framing or not. G) Detail 8/A5.72 shows relationship of wall framing with exterior louvers. Elevation 3/A3.16 shows louver type L06 to be centered on gridlines typically. Section 89100-2.2 has not indicated what types of louvers are used on this project (needs updated), but detail 8/A5.72 shows the potential for conflicts with the vertical Structural columns located on grids. H) Detail 8/A5.72 references floor type FC-XX (per plan) for this penthouse floor. A2.33 (or any building/wall sections) don't identify the floor type either. Needs updated as what is shown on detail 8/A5.72 isn't clear. I) M2.33 shows (14) locations where floor drains are installed. Where are these drains installed? In the floor grating or in the existing roof below framing? We assume they are in floor below with the piping shown on M2.32. AD2.33 should mention the demolition for these drains and Mechanical should provide a detail for floor drains in wood/metal decking.	F) We will push framing outside of column. G) Details revised so continuous louvers are attached outboard of columns. Louver spec updated. H) Floor Type FC-10 is shown on Sheet A9.04 and extents of the floor type is shown on 4/A9.08. I) Mech will drain at the subfloor level at grid S1 draining out to SH	9/1