

# **BID AND CONTRACT DOCUMENTS 3 of 3**

**FOR**

**PROJECT No. MC08430011869**

**CARDIAC CATHETERIZATION LABORATORY**

**Riverside University Health System Medical Center  
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RIVERSIDE UNIVERSITY HEALTH SYSTEM

(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

MEDICAL CENTER CARDIAC  
CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF  
CALIFORNIA

APPENDIX “A”  
CONTRACT DOCUMENT LISTING

**Phase 1 and 2 - Current Drawings**

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
<b>General</b>					
GI001	GENERAL PROJECT INFORMATION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI002	SYMBOLS, SHEET INDEX, ABBREVIATION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI003	ACCESSIBILITY NOTES AND DIAGRAMS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI004	ADA TOILET FIXTURE AND SHOWER STANDARDS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI101	EXISTING LIFE SAFETY PLANS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
GI102	LIFE SAFETY PLAN	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
GI200	SHEET NUMBER	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
<b>Demolition</b>					
AD101	PHASING PLAN - LEVEL 1 - DEMO - PHASE 1 (not used)	2	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AD102	PHASING PLAN - LEVEL 1 - DEMO - PHASE 2 (not used)	1	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AD111	PARTIAL FLOOR PLAN - LEVEL 1 - DEMO	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AD112	PARTIAL FLOOR PLAN - LEVEL 2 & 3 - DEMO	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AD121	PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - DEMO	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AD151	PHASING PLAN - LEVEL 1 - FLOOR PLAN - DEMO	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AD152	PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - DEMO	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
<b>Structural</b>					
S001	GENERAL NOTES 1	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S002	GENERAL NOTES 2	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S003	TYPICAL DETAILS	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
S111	LEVEL 1 - PARTIAL FRAMING & FLOOR PLAN	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S112	LEVEL 2 - PARTIAL FRAMING PLAN	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S113	PARTIAL THIRD LEVEL FRAMNG PLAN	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S211	ENLARGED PLANS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S501	DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S502	DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S503	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S504	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S505	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S506	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S507	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S508	ANCHORAGE DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
S509	SECTIONS AND DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
<b>Architectural</b>					
AE110	PARTIAL FLOOR PLAN - LEVEL LOWER -EXISTING CONDITION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE111	PARTIAL FLOOR PLAN - LEVEL 1 - REMODEL	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE112	PARTIAL FLOOR PLAN - LEVEL 2 - REMODEL AND PARTIAL ROOF PLAN	2	07/28/2025	07/31/2025	Addendum 2 (07/28/25)
AE121	PARTIAL REFLECTED CEILING PLAN - LEVEL 1 - REMODEL	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE131	IMAGING EQUIPMENT ENLARGED PLAN - CATH LAB	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE132	IMAGING EQUIPMENT ENLARGED REFLECTED CEILING PLAN - CATH LAB	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE141	SHIELDING PLAN - LEVEL 1 - CATH LABS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE151	PHASING PLAN - LEVEL 1 - FLOOR PLAN - REMODEL	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE152	PHASING PLAN - LEVEL 1 - REFLECTED CEILING PLAN - REMODEL	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE221	ENLARGED REMODEL CEILING PLAN	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE301	PARTIAL BUILDING SECTION @ CATH LAB - EAST/WEST	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE302	PARTIAL BUILDING SECTION @ CATH LAB - NORTH/SOUTH	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE401	ENLARGED PLANS & ELEVATIONS - WAITING/OFFICE, STAFF LOUNGE AND LOCKERS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE402	ENLARGED PLANS & ELEVATIONS - CATH LAB, CONTROL AND EQUIP RM	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE403	ENLARGED PLANS & ELEVATIONS - PRE/POST PROCEDURE AREA	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE404	ENLARGED PLANS & ELEVATIONS - HYPERBARIC CHAMBER	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE511	PARTITION TYPES	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE512	DETAILS - PARTITIONS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE513	DETAILS - PARTITIONS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE514	DETAILS - PARTITIONS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE515	DETAILS - PARTITIONS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE516	DETAILS - PARTITION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE517	DETAILS - PARTITION	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE518	DETAILS - CEILINGS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE519	DETAILS - CEILINGS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE519.A	CEILING DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE520	DETAILS - CEILINGS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE531	UL DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE532	UL DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE533	UL DETAILS	BC2Approved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE534	UL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE535	UL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE536	UL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE541	DETAILS - MISCELLANEOUS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE551	DETAILS - DOOR AND WINDOW	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
AE552	DETAILS - DOORS	2	07/28/2025	07/31/2025	Addendum 2 (07/28/25)

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
AE561	DETAILS - CASEWORK SECTIONS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE562	DETAILS - CASEWORK SECTIONS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
AE601	DOOR SCHEDULE, DOOR TYPES, AND FRAMES		2	07/28/2025	07/31/2025
AE602	CASEWORK ELEVATION TYPES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EC 97911-281	2000T Terrace Doors		0	07/28/2025	07/31/2025
Notes	Addendum 2		0	07/28/2025	07/31/2025
OSH-FD-303A R04.35	Testing, Inspection, and Observation		0	05/08/2024	05/16/2024
<b>Interior</b>					
IE101	FLOOR FINISH PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE102	WALL FINISH PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE131	FURNITURE PLAN - ZONE A	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE132	FURNITURE PLAN - ZONE B	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE133	FURNITURE PLAN - ZONE C	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
IE601	FINISH SCHEDULE AND SCHEDULE FOR FINISHES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
<b>Equipment</b>					
EQ001	ABBREVIATIONS, GENERAL NOTES, AND MOUNTING HEIGHTS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ101A	EQUIPMENT PLAN - AREA A	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ101B	EQUIPMENT PLAN - AREA B	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ401	CATH LAB ENLARGED EQUIPMENT PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ701	MEDICAL EQUIPMENT SCHEDULE	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EQ702	MEDICAL EQUIPMENT SCHEDULE	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
<b>Plumbing</b>					
PI001	PLUMBING LEAD SHEET	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE100	LOWER LEVEL - PLUMBING PLAN - A	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE101	SHEET 619.00 NAME BIOMEDICAL F0064 979.05 ELEC. EQUIP.	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE111	LEVEL 1 - PLUMBING PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE113	LEVEL 3 - PLUMBING ROOF PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE151	LEVEL 1 - PLUMBING PHASING PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE201	PLUMBING ENLARGED PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE202	PLUMBING ENLARGED PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE501	PLUMBING DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PE601	PLUMBING SCHEDULES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PD110	LOWER LEVEL - PLUMBING DEMOLITION PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PD111	LEVEL 1 - PLUMBING DEMOLITION PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
PD151	LEVEL 1 - PLUMBING DEMOLITION PHASING PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
<b>Mechanical</b>					

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
MI001	MECHANICAL LEAD SHEET	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME101	LEVEL 1 - ZONE PLAN	<a href="https://bernards.egnyte.com/navigate/file/c6c14d1f-96f2-47f1-911a-50721bf6246b">https://bernards.egnyte.com/navigate/file/c6c14d1f-96f2-47f1-911a-50721bf6246b</a>	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME211	MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - NORTH	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
ME212	MECHANICAL ENLARGED PLAN REMODEL PHASE 1 - LEVEL 1 - SOUTH	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME213	MECHANICAL ENLARGED PLAN - LEVEL 3 - ROOF	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME214	MECHANICAL ENLARGED PLAN REMODEL PHASE 2 - LEVEL 1	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME311	MECHANICAL ENLARGED PLAN - SECTION VIEWS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME501	MECHANICAL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME502	MECHANICAL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME503	MECHANICAL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME601	MECHANICAL AIR BALANCE	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME602	MECHANICAL CONTROLS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME603	MECHANICAL CONTROLS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME604	MECHANICAL SCHEDULES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
MD111	LEVEL 1 - MECHANICAL DEMOLITION PHASE 1 PLAN - BYPASS DUCTWORK & WORK OUTSIDE OF REMODEL SHOWN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
MD112	MECHANICAL DEMOLITION PHASE 2 PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
MD211	LEVEL 2 - MECHANICAL DEMOLITION PLAN - BYPASS DUCTWORK & PHASE 1 NEW MECHANICAL PLAN BC2	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ME210	MECHANICAL ENLARGED PLAN REMODEL - LOWER LEVEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
<b>Electrical</b>					
EI001	ELECTRICAL LEAD SHEET	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EI002	ELECTRICAL TELECOMM LEAD SHEET	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EI003	ELECTRICAL TELECOMM RESPONSIBILITY MATRIX	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE100	BUILDING OVERALL ELEC FLOOR PLANS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE111	PHASING PLAN - LEVEL 1 - ELECTRICAL POWER & FIRE ALARM PLAN - REMODEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE112	PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING PLAN - REMODEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE113	PHASING PLAN - LEVEL 1 - ELECTRICAL TELECOMM PLAN - REMODEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE114	ROOF - ELECTRICAL POWER PLAN	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE201	ELECTRICAL TELECOMM ENLARGED PLANS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE202	ELECTRICAL TELECOMM ENLARGED PLANS	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
EE203	ELECTRICAL TELECOMM ENLARGED PLANS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE501	ELECTRICAL DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE502	ELECTRICAL TELECOMM DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE503	ELECTRICAL TELECOMM DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE504	ELECTRICAL TELECOMM DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE505	ELECTRICAL TELECOMM DETAILS	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE601	ELECTRICAL DIAGRAMS	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
EE602	ELECTRICAL TELECOMM RISER DIAGRAM	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE603	ELECTRICAL TELECOMM RISER DIAGRAM & SCHEDULE	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE604	ELECTRICAL PANEL SCHEDULES	01	04/30/2025	05/12/2025	Addendum 1 (04/25/25)
EE605	ELECTRICAL PANEL SCHEDULES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE606	ELECTRICAL SCHEDULES	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ED151	PHASING PLAN - LVL 1 - ELEC POWER PLAN - DEMO	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
ED152	PHASING PLAN - LVL 1 - ELEC LIGHTING PLAN - DEMO	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
EE112A	PHASING PLAN - LEVEL 1 - ELECTRICAL LIGHTING EGRESS PLAN - REMODEL	BC2HCAiApproved	08/16/2024	08/22/2024	HCAi Approved (08/16/24)
<b>Reference (Philips Cath Lab)</b>					
R1 A0L	CATH LAB 1 - PHILIPS - EQUIPMENT LEGEND	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 A0N	CATH LAB 1 - PHILIPS - GENERAL NOTES	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 A01	CATH LAB 1 - PHILIPS - SITE LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 A02	CATH LAB 1 - PHILIPS - EQUIPMENT LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 A03	CATH LAB 1 - PHILIPS - ELEVATION VIEW	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD1	CATH LAB 1 - PHILIPS - TRANSPORT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD2	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD3	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD4	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD5	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD6	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 AD7	CATH LAB 1 - PHILIPS - EQUIPMENT DETAILS	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 C01	CATH LAB 1 - PHILIPS - COVER SHEET	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 CHK	CATH LAB 1 - PHILIPS - CHECKLIST	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 E0N	CATH LAB 1 - PHILIPS - ELECTRICAL NOTES	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 E01	CATH LAB 1 - PHILIPS - ELECTRICAL LAYOUT	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 E02	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO	1	05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
					Provisional (05/27/22)
R1 E03	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 E04	CATH LAB 1 - PHILIPS - RACEWAY & CONDUIT INFO		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 ED1	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 ED2	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 ED3	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 ED4	CATH LAB 1 - PHILIPS - ELECTRICAL DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 EL1	CATH LAB 1 - PHILIPS - ELECTRICAL LEGEND		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 EL2	CATH LAB 1 - PHILIPS - ELECTRICAL LEGEND		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 N01	CATH LAB 1 - PHILIPS - REMOVE SERVICE NETWORK		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 N02	CATH LAB 1 - PHILIPS - REMOVE SERVICE NETWORK		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S0L	CATH LAB 1 - PHILIPS - SUPPORT LEGEND		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S0N	CATH LAB 1 - PHILIPS - SUPPORT NOTES		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S01	CATH LAB 1 - PHILIPS - SUPPORT LAYOUT, FLOOR & WALL		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S02	CATH LAB 1 - PHILIPS - SUPPORT, LAYOUT, CEILING		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 S03	CATH LAB 1 - PHILIPS - SUPPORT ALAYOUT, CEILING		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 SD1	CATH LAB 1 - PHILIPS - SUPPORT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 SD2	CATH LAB 1 - PHILIPS - SUPPORT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R1 SD3	CATH LAB 1 - PHILIPS - SUPPORT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 A0L	CATH LAB 2 - PHILIPS - EQUIPMENT LEGEND		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 A0N	CATH LAB 2 - PHILIPS - GENERAL NOTES		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 A01	CATH LAB 2 - PHILIPS - SITE LAYOUT		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 A02	CATH LAB 2 - PHILIPS - EQUIPMENT LAYOUT		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips -

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
					Provisional (05/27/22)
R2 A03	CATH LAB 2 - PHILIPS - ELEVATION VIEW		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD1	CATH LAB 2 - PHILIPS - TRANSPORT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD2	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD3	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD4	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD5	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD6	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 AD7	CATH LAB 2 - PHILIPS - EQUIPMENT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 CHK	CATH LAB 2 - PHILIPS - CHECKLIST		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 CO1	CATH LAB 2 - PHILIPS - COVER SHEET		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E0N	CATH LAB 2 - PHILIPS - ELECTRICAL NOTES		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E01	CATH LAB 2 - PHILIPS - ELECTRICAL LAYOUT		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E02	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFO		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E03	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFOR		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 E04	CATH LAB 2 - PHILIPS - RACEWAY & CONDUIT INFO		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 ED1	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 ED2	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 ED3	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 ED4	CATH LAB 2 - PHILIPS - ELECTRICAL DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 EL1	CATH LAB 2 - PHILIPS - ELECTRICAL LEGEND		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 EL2	CATH LAB 2 - PHILIPS - ELECTRICAL LEGEND		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 N01	CATH LAB 2 - PHILIPS - REVOE SERVICE NETWORK		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips -

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
					Provisional (05/27/22)
R2 N02	CATH LAB 2 - PHILIPS - REMOVE SERVICE NETWORK		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S0L	CATH LAB 2 - PHILIPS - SUPPORT LEGEND		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S0N	CATH LAB 2 - PHILIPS - SUPPORT NOTES		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S01	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, FLOOR & WALL		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S02	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, CEILING		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 S03	CATH LAB 2 - PHILIPS - SUPPORT LAYOUT, CEILING		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 SD1	CATH LAB 2 - PHILIPS - SUPPORT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 SD2	CATH LAB 2 - PHILIPS - SUPPORT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)
R2 SD3	CATH LAB 2 - PHILIPS - SUPPORT DETAILS		1 05/27/2022	05/08/2024	Cathlab#01 - Phillips - Provisional (05/27/22)

## Current Specifications

Number	Description	Revision	Issued Date	Received Date	Set
<b>I - Unknown</b>					
I	Default Section	0	08/16/24	08/22/24	TIO
<b>01 - General Requirements</b>					
00 01 07	Seals Page	I	08/16/24	08/22/24	Specification HACi Approved
047-100	Project Manual	2	04/30/25	05/12/25	Addendum I
000110	Table of Contents	I	08/16/24	08/22/24	Specification HACi Approved
<b>02 - Demolition</b>					
02	Existing Conditions	I	08/16/24	08/22/24	Specification HACi Approved
02 41 20	SELECTIVE BUILDING DEMOLITION	I	08/16/24	08/22/24	Specification HACi Approved
<b>03 - Concrete</b>					
03	Concrete	I	08/16/24	08/22/24	Specification HACi Approved
03 10 00	CONCRETE FORMWORK	I	08/16/24	08/22/24	Specification HACi Approved
03 20 00	CONCRETE REINFORCING	I	08/16/24	08/22/24	Specification HACi Approved
03 25 00	CONCRETE ANCHORS IN CURED CONCRETE	I	08/16/24	08/22/24	Specification HACi Approved
03 30 00	CAST-IN-PLACE CONCRETE	I	08/16/24	08/22/24	Specification HACi Approved
03 54 16	HYDRAULIC CEMENT UNDERLayment	I	08/16/24	08/22/24	Specification HACi Approved
03 60 00	GROUT AND DRY PACK	I	08/16/24	08/22/24	Specification HACi Approved
<b>04 - Masonry</b>					
<b>05 - Metals</b>					
05	METALS	I	08/16/24	08/22/24	Specification HACi Approved
05 12 00	STRUCTURAL STEEL	I	08/16/24	08/22/24	Specification HACi Approved
05 40 00	COLD-FORMED METAL FRAMING	I	08/16/24	08/22/24	Specification HACi Approved
05 50 00	METAL FABRICATIONS	I	08/16/24	08/22/24	Specification HACi Approved
05 50 10	INTERIOR METAL FABRICATIONS	I	08/16/24	08/22/24	Specification HACi Approved
<b>06 - Wood, Plastics, and Composites</b>					
06	WOOD, PLASTICS, AND COMPOSITES	I	08/16/24	08/22/24	Specification HACi Approved
06 10 53	MISCELLANEOUS ROUGH CARPENTRY	I	08/16/24	08/22/24	Specification HACi Approved
06 41 19	PLASTIC LAMINATE-CLAD WOOD CASEWORK	I	08/16/24	08/22/24	Specification HACi Approved
<b>07 - Thermal and Moisture Protection</b>					
07	THERMAL AND MOISTURE PROTECTI ON	I	08/16/24	08/22/24	Specification HACi Approved
07 01 56	MEMBRANE ROOFING MODIFICATIONS	I	08/16/24	08/22/24	Specification HACi Approved
07 41 13	METAL ROOF PANELS	I	08/16/24	08/22/24	Specification HACi Approved
07 84 00	FIRESTOPPING	I	08/16/24	08/22/24	Specification HACi Approved

Number	Description	Revision	Issued Date	Received Date	Set
07 92 10	INTERIOR JOINT SEALANTS	I	08/16/24	08/22/24	Specification HACi Approved
<b>08 - Openings</b>					
08	OPENINGS	I	08/16/24	08/22/24	Specification HACi Approved
08 12 13	STANDARD HOLLOW METAL FRAMES	I	08/16/24	08/22/24	Specification HACi Approved
08 13 13	STANDARD HOLLOW METAL DOORS	I	08/16/24	08/22/24	Specification HACi Approved
08 14 24	PLASTIC LAMINATE-FACED WOOD DOORS	I	08/16/24	08/22/24	Specification HACi Approved
08 17 13	INTEGRATED DOOR ASSEMBLIES	I	08/16/24	08/22/24	Specification HACi Approved
08 31 16	ACCESS PANELS	I	08/16/24	08/22/24	Specification HACi Approved
08 42 43	ICU-CCU ENTRANCES	I	08/16/24	08/22/24	Specification HACi Approved
08 71 00	DOOR HARDWARE	I	08/16/24	08/22/24	Specification HACi Approved
08 71 13	AUTOMATIC DOOR OPERATORS	I	08/16/24	08/22/24	Specification HACi Approved
08 81 10	INTERIOR GLASS GLAZING	I	08/16/24	08/22/24	Specification HACi Approved
08 83 13	MIRRORED GLASS	I	08/16/24	08/22/24	Specification HACi Approved
<b>09 - Finishes</b>					
09	FINISHES	I	08/16/24	08/22/24	Specification HACi Approved
09 05 16	PREPARATION OF CONCRETE SUBSTRATES FOR FINISH FLOORING	I	08/16/24	08/22/24	Specification HACi Approved
09 22 16	LIGHTGAGE METAL FRAMING	I	08/16/24	08/22/24	Specification HACi Approved
09 22 26	METAL SUSPENSION SYSTEMS	I	08/16/24	08/22/24	Specification HACi Approved
09 28 15	GMF GYPSUM TILE BACKING BOARD	I	08/16/24	08/22/24	Specification HACi Approved
09 29 00	GYPSUM BOARD	I	08/16/24	08/22/24	Specification HACi Approved
09 51 13	ACOUSTICAL PANEL CEILINGS	I	08/16/24	08/22/24	Specification HACi Approved
09 65 13	RESILIENT BASE AND ACCESSORIES	I	08/16/24	08/22/24	Specification HACi Approved
09 65 16	RESILIENT SHEET FLOORING	I	08/16/24	08/22/24	Specification HACi Approved
09 65 23	SECTION 09 65 23 – RESILIENT PLANK FLOORING	I	08/16/24	08/22/24	Specification HACi Approved
09 81 33	ACOUSTICAL INSULATION, SEALANTS, AND ACCESSORIES	0	08/16/24	08/22/24	Specification HACi Approved
09 91 00	Painting	I	08/16/24	08/22/24	Specification HACi Approved
09 96 13	Abrasion-Resistant Coatings	I	08/16/24	08/22/24	Specification HACi Approved
09 97 23	Concrete and Masonry Coatings	I	08/16/24	08/22/24	Specification HACi Approved
<b>10 - Specialties</b>					
10	SPECIALTIES	I	08/16/24	08/22/24	Specification HACi Approved
10 11 16	Markerboards	I	08/16/24	08/22/24	Specification HACi Approved
10 14 13	REGULATORY SIGNAGE	0	08/16/24	08/22/24	Specification HACi Approved
10 21 33	CUBICLE CURTAINS AND TRACK	0	08/16/24	08/22/24	Specification HACi Approved
10 26 00	Wall and Door Protection	I	08/16/24	08/22/24	Specification HACi Approved
10 28 13	Toilet Accessories	I	08/16/24	08/22/24	Specification HACi Approved
10 28 14	COMMERCIAL SHOWER ACCESSORIES	0	08/16/24	08/22/24	Specification HACi Approved
10 44 00	Fire Protection Specialties	I	08/16/24	08/22/24	Specification HACi Approved



Job #: 1867-MS RUHS-Medical Center Cardiac Catheterization Laboratory Suite  
26520 Cactus Avenue  
Moreno Valley, California 92555

Number	Description	Revision	Issued Date	Received Date	Set
10 51 13	Metal Lockers	I	08/16/24	08/22/24	Specification HACi Approved
<b>11 - Equipment</b>					
11	EQUIPMENT	I	08/16/24	08/22/24	Specification HACi Approved
11 31 10	KITCHENETTE APPLIANCES	0	08/16/24	08/22/24	Specification HACi Approved
<b>12 - Furnishings</b>					
12	FURNISHINGS	I	08/16/24	08/22/24	Specification HACi Approved
12 24 13	Roller Window Shades	I	08/16/24	08/22/24	Specification HACi Approved
12 36 63	SOLID SURFACE MATERIAL COUNTERTOPS	0	08/16/24	08/22/24	Specification HACi Approved
<b>13 - Special Construction</b>					
13	SPECIAL CONSTRUCTION	I	08/16/24	08/22/24	Specification HACi Approved
13 49 13	Integrated X-Ray Shielding Assemblies	I	08/16/24	08/22/24	Specification HACi Approved
<b>22 - Plumbing</b>					
22	PLUMBING	I	08/16/24	08/22/24	Specification HACi Approved
22 05 00	Common Work Results for Plumbing	I	08/16/24	08/22/24	Specification HACi Approved
22 05 10	PLUMBING DEMOLITION AND ALTERATIONS	0	08/16/24	08/22/24	Specification HACi Approved
22 05 19	Meters and Gages for Plumbing Piping	I	08/16/24	08/22/24	Specification HACi Approved
22 05 23	General-Duty Valves for Plumbing Piping	I	08/16/24	08/22/24	Specification HACi Approved
22 05 29	Hangers and Supports for Plumbing Piping and Equipment	I	08/16/24	08/22/24	Specification HACi Approved
22 05 49	SEISMIC RESTRAINT FOR PLUMBING PIPING AND EQUIPMENT	0	08/16/24	08/22/24	Specification HACi Approved
22 05 53	Identification for Plumbing Piping and Equipment	I	08/16/24	08/22/24	Specification HACi Approved
22 07 00	Plumbing Insulation	I	08/16/24	08/22/24	Specification HACi Approved
22 08 00	Commissioning of Plumbing	I	08/16/24	08/22/24	Specification HACi Approved
22 11 16	Domestic Water Piping	I	08/16/24	08/22/24	Specification HACi Approved
22 11 19	Domestic Water Piping Specialties	I	08/16/24	08/22/24	Specification HACi Approved
22 13 16	Sanitary Waste and Vent Piping	I	08/16/24	08/22/24	Specification HACi Approved
22 13 19	Sanitary Waste Piping Specialties	I	08/16/24	08/22/24	Specification HACi Approved
22 40 00	Plumbing Fixtures	I	08/16/24	08/22/24	Specification HACi Approved
22 63 13	Gas Piping for Laboratory and Healthcare Facilities	I	08/16/24	08/22/24	Specification HACi Approved
22 64 00	MEDICAL GAS ALARMS	0	08/16/24	08/22/24	Specification HACi Approved
<b>23 - Heating, Ventilating, and Air Conditioning (HVAC)</b>					
23	HEATING, VENTILATING, AND AIR CONDITIONING	I	08/16/24	08/22/24	Specification HACi Approved
23 05 00	Common Work Results for HVAC	I	08/16/24	08/22/24	Specification HACi Approved
23 05 10	HVAC DEMOLITION AND ALTERATIONS	0	08/16/24	08/22/24	Specification HACi Approved
23 05 13	Common Motor Requirements for HVAC Equipment	I	08/16/24	08/22/24	Specification HACi Approved
23 05 23	General-Duty Valves for HVAC Piping	I	08/16/24	08/22/24	Specification HACi Approved
23 05 29	Hangers and Supports for HVAC Piping and Equipment	I	08/16/24	08/22/24	Specification HACi Approved
23 05 49	SEISMIC RESTRAINT FOR HVAC	0	08/16/24	08/22/24	Specification HACi Approved

Number	Description	Revision	Issued Date	Received Date	Set
23 05 50	VIBRATION CONTROLS FOR HVAC	0	08/16/24	08/22/24	Specification HACi Approved
23 05 53	Identification for HVAC Piping and Equipment	I	08/16/24	08/22/24	Specification HACi Approved
23 05 93	Testing, Adjusting, and Balancing for HVAC	I	08/16/24	08/22/24	Specification HACi Approved
23 07 00	HVAC Insulation	I	08/16/24	08/22/24	Specification HACi Approved
23 08 00	Commissioning of HVAC	I	08/16/24	08/22/24	Specification HACi Approved
23 09 00	Instrumentation and Control for HVAC	I	08/16/24	08/22/24	Specification HACi Approved
23 09 93	Sequence of Operations for HVAC Controls	I	08/16/24	08/22/24	Specification HACi Approved
23 21 13	Hydronic Piping	I	08/16/24	08/22/24	Specification HACi Approved
23 21 17	HYDRONIC PIPING SPECIALTIES	0	08/16/24	08/22/24	Specification HACi Approved
23 21 24	CONDENSATE PIPING AND PUMPS	0	08/16/24	08/22/24	Specification HACi Approved
23 22 13	Steam and Condensate Heating Piping	I	08/16/24	08/22/24	Specification HACi Approved
23 23 00	Refrigerant Piping	I	08/16/24	08/22/24	Specification HACi Approved
23 29 23	VARIABLE FREQUENCE DRIVES	0	08/16/24	08/22/24	Specification HACi Approved
23 31 13	Metal Ducts	I	08/16/24	08/22/24	Specification HACi Approved
23 33 00	Air Duct Accessories	I	08/16/24	08/22/24	Specification HACi Approved
23 34 00	HVAC Fans	I	08/16/24	08/22/24	Specification HACi Approved
23 36 16	Variable-Air-Volume Units	I	08/16/24	08/22/24	Specification HACi Approved
23 37 13	Diffusers, Registers, and Grilles	I	08/16/24	08/22/24	Specification HACi Approved
23 41 00	Particulate Air Filtration	I	08/16/24	08/22/24	Specification HACi Approved
23 73 14	MODULAR OUTDOOR AIR HANDLING UNITS	0	08/16/24	08/22/24	Specification HACi Approved
23 81 29	Variable Refrigerant Flow HVAC Systems	I	08/16/24	08/22/24	Specification HACi Approved
23 84 13	Humidifiers	I	08/16/24	08/22/24	Specification HACi Approved
<b>26 - Electrical</b>					
26	Electrical	I	08/16/24	08/22/24	Specification HACi Approved
26 05 00	Common Work Results for Electrical	I	08/16/24	08/22/24	Specification HACi Approved
26 05 10	SELECTIVE ELECTRICAL DEMOLITION	I	08/16/24	08/22/24	Specification HACi Approved
26 05 19	Low-Voltage Electrical Power Conductors and Cables	I	08/16/24	08/22/24	Specification HACi Approved
26 05 26	Grounding and Bonding for Electrical Systems	I	08/16/24	08/22/24	Specification HACi Approved
26 05 29	Hangers and Supports for Electrical Systems	I	08/16/24	08/22/24	Specification HACi Approved
26 05 33	Raceway and Boxes for Electrical Systems	I	08/16/24	08/22/24	Specification HACi Approved
26 05 44	SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING	0	08/16/24	08/22/24	Specification HACi Approved
26 05 49	SEISMIC RESTRAINT FOR ELECTRICAL SYSTEMS	0	08/16/24	08/22/24	Specification HACi Approved
26 05 53	Identification for Electrical Systems	I	08/16/24	08/22/24	Specification HACi Approved
26 05 73	Overcurrent Protective Device Coordination Study	I	08/16/24	08/22/24	Specification HACi Approved
26 09 23	Lighting Control Devices	I	08/16/24	08/22/24	Specification HACi Approved
26 22 00	Low-Voltage Transformers	I	08/16/24	08/22/24	Specification HACi Approved
26 24 16	Panelboards	I	08/16/24	08/22/24	Specification HACi Approved



Job #: 1867-MS RUHS-Medical Center Cardiac Catheterization Laboratory Suite  
26520 Cactus Avenue  
Moreno Valley, California 92555

Number	Description	Revision	Issued Date	Received Date	Set
26 24 17	ISOLATION PANELBOARDS	0	08/16/24	08/22/24	Specification HACi Approved
26 27 26	Wiring Devices	1	08/16/24	08/22/24	Specification HACi Approved
26 28 13	Fuses	1	08/16/24	08/22/24	Specification HACi Approved
26 28 16	Enclosed Switches and Circuit Breakers	1	08/16/24	08/22/24	Specification HACi Approved
26 31 11	DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM	1	08/16/24	08/22/24	Specification HACi Approved
26 43 13	Surge Protective Devices for Low-Voltage Electrical Power Circuits	1	08/16/24	08/22/24	Specification HACi Approved
26 51 00	Interior Lighting	1	08/16/24	08/22/24	Specification HACi Approved
<b>27 - Communications</b>					
27	COMMUNICATIONS	1	08/16/24	08/22/24	Specification HACi Approved
27 05 00	Common Work Results for Communications	1	08/16/24	08/22/24	Specification HACi Approved
27 05 10	SELECTIVE ELECTRICAL DEMOLITION	0	08/16/24	08/22/24	Specification HACi Approved
27 05 26	Grounding and Bonding for Communications Systems	1	08/16/24	08/22/24	Specification HACi Approved
27 05 28	Pathways for Communications Systems	1	08/16/24	08/22/24	Specification HACi Approved
27 11 00	Communications Equipment Room Fittings	1	08/16/24	08/22/24	Specification HACi Approved
27 15 00	Communications Horizontal Cabling	1	08/16/24	08/22/24	Specification HACi Approved
27 52 23	Nurse Call/Code Blue Systems	1	08/16/24	08/22/24	Specification HACi Approved
<b>28 - Electronic Safety and Security</b>					
28	ELECTRONIC SAFETY AND SECURITY	1	08/16/24	08/22/24	Specification HACi Approved
28 05 00	Common Work Results for Electronic Safety and Security	1	08/16/24	08/22/24	Specification HACi Approved
28 05 13	Conductors and Cables for Electronic Safety and Security	1	08/16/24	08/22/24	Specification HACi Approved
28 05 28	Pathways for Electronic Safety and Security	1	08/16/24	08/22/24	Specification HACi Approved
28 13 00	Access Control	1	08/16/24	08/22/24	Specification HACi Approved
<b>TIO_S231455-33-00_BCI - Testing, Inspection, and Observation Program</b>					
TIO	Testing, Inspection, and Observation Program	0			TIO

RIVERSIDE UNIVERSITY HEALTH SYSTEM

(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

MEDICAL CENTER CARDIAC  
CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF  
CALIFORNIA

APPENDIX “B”  
BID PACKAGES

**BID PACKAGE 00**  
**GENERAL REQUIREMENTS**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
02 41 20	Selective Building Demolition
03 10 00	Concrete Formwork
03 20 00	Concrete Reinforcing
03 25 00	Concrete Anchors in Cured Concrete
03 30 00	Cast-In-Place Concrete
03 54 16	Hydraulic Cement Underlayment
03 60 00	Grout and Dry Pack
05 12 00	Structural Steel
05 40 00	Cold-Formed Metal Framing
05 50 00	Metal Fabrications
05 50 10	Interior Metal Fabrications
06 10 53	Miscellaneous Rough Carpentry
06 41 19	Plastic Laminate-Clad Wood Casework
07 01 56	Membrane Roofing Modifications
07 41 13	Metal Roof Panels
07 84 00	Firestopping
07 92 10	Interior Joint Sealants
08 12 13	Standard Hollow Metal Frames
08 13 13	Standard Hollow Metal Doors
08 14 24	Plastic Laminate-Faced Wood Doors
08 17 13	Integrated Door Assemblies
08 31 16	Access Panels

08 42 43	ICU-CCU Entrances
08 71 00	Door Hardware
08 71 13	Automatic Door Operators
08 81 10	Interior Glass Glazing
08 83 13	Mirrored Glass
09 05 16	Preparation Of Concrete Substrates for Finish Flooring
09 22 16	Light Gage Metal Framing
09 22 26	Metal Suspension Systems
09 28 15	GMF Gypsum Tile Backing Board
09 29 00	Gypsum Board
09 51 13	Acoustical Panel Ceilings
09 65 13	Resilient Base and Accessories
09 65 16	Resilient Sheet Flooring
09 65 23	Resilient Plank Flooring
09 91 00	Painting
09 96 13	Abrasion-Resistant Coatings
09 97 23	Concrete And Masonry Coatings
10 11 16	Markerboards
10 26 00	Wall And Door Protection
10 28 13	Toilet Accessories
10 44 00	Fire Protection Specialties
10 51 13	Metal Lockers
12 24 13	Roller Window Shades
13 49 13	Integrated X-Ray Shielding Assemblies
22 05 00	Common Work Results for Plumbing
22 05 19	Meters And Gages for Plumbing Piping
22 05 23	General-Duty Valves for Plumbing Piping
22 05 29	Hangers And Supports for Plumbing Piping and Equipment
22 05 53	Identification For Plumbing Piping and Equipment
22 07 00	Plumbing Insulation
22 08 00	Commissioning Of Plumbing
22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 13 16	Sanitary Waste and Vent Piping
22 13 19	Sanitary Waste Piping Specialties
22 40 00	Plumbing Fixtures
22 63 13	Gas Piping for Laboratory and Healthcare Facilities
23 05 00	Common Work Results For HVAC
23 05 13	Common Motor Requirements for HVAC Equipment
23 05 23	General-Duty Valves for HVAC Piping
23 05 29	Hangers and Supports for HVAC Piping And Equipment
23 05 53	Identification For HVAC Piping and Equipment
23 05 93	Testing, Adjusting, And Balancing For HVAC
23 07 00	HVAC Insulation
23 08 00	Commissioning Of HVAC
23 09 00	Instrumentation And Control For HVAC
23 09 93	Sequence Of Operations for HVAC Controls

23 21 13	Hydronic Piping
23 22 13	Steam And Condensate Heating Piping
23 23 00	Refrigerant Piping
23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 34 00	HVAC Fans
23 36 16	Variable-Air-Volume Units
23 37 13	Diffusers, Registers, And Grilles
23 41 00	Particulate Air Filtration
23 81 29	Variable Refrigerant Flow HVAC Systems
23 84 13	Humidifiers
26 05 00	Common Work Results for Electrical
26 05 10	Selective Electrical Demolition
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 05 26	Grounding And Bonding for Electrical Systems
26 05 29	Hangers And Supports for Electrical Systems
26 05 33	Raceway And Boxes for Electrical Systems
26 05 53	Identification For Electrical Systems
26 05 73	Overcurrent Protective Device Coordination Study
26 09 23	Lighting Control Devices
26 22 00	Low-Voltage Transformers
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches and Circuit Breakers
26 43 13	Surge Protective Devices for Low-Voltage Electrical Power Circuits
26 51 00	Interior Lighting
27 05 00	Common Work Results for Communications
27 05 26	Grounding And Bonding for Communications Systems
27 05 28	Pathways For Communications Systems
27 11 00	Communications Equipment Room Fittings
27 15 00	Communications Horizontal Cabling
27 52 23	Nurse Call/Code Blue Systems
28 05 00	Common Work Results for Electronic Safety and Security
28 05 13	Conductors And Cables for Electronic Safety and Security
28 05 28	Pathways For Electronic Safety and Security
28 13 00	Access Control
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

B. General Requirements

Provide and install work that shall include, but not be limited to, the following:

1. Equipment, trucking, dump fees and recycling as required, for the removal from site of all demolition materials generated by the execution of Contractors work. Contractor shall adhere to all requirements of waste disposal as indicated in specification 01 74 00, Construction Waste Management and Disposal. Bid Package 01 – Misc. Specialties will provide dumpsters for misc. demolition materials.
2. Bid Package 01 – Misc. Specialties will provide portable restrooms and wash stations for the workers.
3. Bid Package 01 – Misc. Specialties will provide temporary construction fencing with windscreen. Contractor shall be responsible for securing and protecting their material and equipment to prevent against theft.
4. Necessary railings, barricades and safety devices related to work, in compliance with all local, state and federal inspection agencies, including temporary shoring and structural bracing. Contractor shall remove all temporary items when no longer required.
5. Necessary patching and temporary weather protection, as required to protect work to remain, even if it is temporary.
6. Protect-in-place, as needed, including but not limited to; all benchmarks, walks, streets, driveways, adjacent buildings/structures, furnishings, conduits, drains, sewers, pipes, to remain, and equipment within and/or surrounding the new construction.
7. Take all necessary precautions to prevent disturbing any existing underground utilities and/or structures not to be removed in this scope of work.
8. Excess dirt generated by the work of Contractor shall be stockpiled, clean, debris removed, and ready for use, at an onsite location designated by Construction Manager, as part of this scope of work.
9. Contractor's trucks leaving the site shall take every reasonable precaution so as to not track or drop construction debris or miscellaneous trash onto offsite roads, haul routes, and contractor parking areas. Any dirt, rocks or construction materials, and miscellaneous debris that may be tracked or dropped shall be cleaned up immediately at the Contractor's expense.
10. Daily clean up of all work areas of Contractor is required. Refuse/Debris created by the work of Contractor shall be removed from the site on a daily basis.
11. Traffic control including flag persons, equipment and steel plates as required for Contractor's work. Flag persons shall be trained per Cal OSHA requirements prior to working in that capacity.
12. Obtain and comply with all AQMD permits and OSHA safety requirements for work of Contractor. Contractor shall pay all fines and fees from OSHA or AQMD associated with the work of this contract.
13. Dust control while onsite for work operations shall be performed by Contractor. Site shall be sufficiently wetted by Contractor at the end of each workday.
14. Responsible for providing water as required for their operations. This includes water trucks, adapters, hoses, labor and protection. Include disconnection and removal upon completion of this work.
15. Verify via pot-holing and the exact location of all utilities and structures that may be encountered during construction. Coordinate with Contract Documents and Owner's As-Builds prior to performing pot-holing.
16. Contact "Dig Alert" or similar utility locating service prior to starting any work.
17. Dewatering of trenches, footings, foundations, etc. as required for work of this Bid Package.
18. For duration of the Project, removable bins with lining improvements, per SWPPP requirements, for concrete wash out.
19. Saw cutting and removal as necessary to perform work.
20. Responsible for survey and layout requirements specific to work. Provide all intermediate line and grade control as necessary to properly execute and complete the work. Initial benchmarks are provided by Owner.
21. Comply with Erosion Control Plan requirements by providing Best Management Practices for work related to Contractor, including containment and secondary containment requirements. Provide replacement and re-installation of Erosion Control Plan elements if affected by work

of Contractor. Provide a Responsible Person (RP) for BMP implementation and coordination with onsite Erosion Control Plan. Compliance with all regulations shall be the sole responsibility of this Contractor and its subcontractors. This Contractor and its subcontractors are responsible for making necessary corrections within the time frame indicated on the report produced by Owner SWPPP consultant.

22. Prior to commencing work, Contractor shall walk the site with Construction Manager to establish existing conditions. Contractor shall remedy any damage related to work for any existing conditions required to remain. In reviewing the site, Contractor shall include all items required to perform this scope of work, whether specifically shown in the Contract Documents or not.
23. The Construction Manager has prepared a detailed schedule that will be strictly adhered to. The schedule will be updated monthly and issued for review and comment. The Contractor will have 10 days after issuance of the Notice to Proceed to provide the Construction Manager with any comments and/or revisions that will be considered for incorporation into the schedule. Failure to provide Construction Manager written acknowledgement or comments will deem the Contractor has accepted the Project Schedule as published.
24. Subcategories within scope of work do not limit scope of work to only subcategory heading.
25. Multiple mobilizations as required to meet contract schedule requirements.
26. Project phasing order maybe change before the start of construction.
27. Coordinate with other bid packages as required to perform scope of work.
28. Provide temporary power cords as required to install this scope of work. Provide, install and maintain temporary task lighting as required to provide quality work throughout.
29. Provide all hoisting and scaffolding as required for your work unless otherwise noted.
30. Responsible for scheduling inspections of all governing jurisdictions for the work of this category in a timely manner that does not impact the construction schedule.
31. Responsible for all layout, engineering, elevations, and layout coordination with other bid packages. Layout all work for this category from established control lines. Upon completion of the work, provide as-builts that tie all site improvements to property lines and/or building corners and meet the requirements of the Contract Documents. As-built drawings are to be updated weekly. Coordinate with soils report for all underground work that may require shielding in trenches.
32. Provide a minimum of seventy-two (72) hour notice for utility shut-down and include plan for duration of utility shut-down.
33. Re-inspection costs for failed inspections to be the responsibility of the Contractor.
34. Whether or not the technical specifications reference General Contractor, the definition of the General Contractor where General Contractor is used throughout the technical specifications, it is to be defined as the Prime Contractor providing services for their specific Bid Package, as appropriate for the project, and not limited to the use of the General Contractor language contained in Bid Package 01.

## 1.04 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

## 1.05 CONTRACTOR'S DUTIES

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.
- L. Submit Daily Reports. Reports to include the following:
  - i. Sign in/out Sheet with columns for Name, Time in and out, Classification, Injuries during the shift. Foreman and or Superintendent on the top of the sheet
  - ii. Who is on site.
  - iii. Does everyone have Proper PPE
  - iv. Copy of Tailboard or Safety notes
  - v. What Area you are working in
  - vi. Work installed that day
    - 1. Base scope or CO, Provide COR #
  - vii. Any Alarms set off
  - viii. Pre and Post Work Photos
  - ix. Issues on site
    - 1. Safety
    - 2. Existing Conditions that may need to be remedied.
    - 3. Access
    - 4. Weather
    - 5. Document Conflicts
    - 6. Coordination issues
  - x. Any other Trade or Sub working in your area
  - xi. List any contact with any site/customer personnel

- xii. What work permits were required
  - 1. Hot Work
  - 2. Access
  - 3. ICRA
- xiii. Written Weekly Schedule updates while onsite, three week look ahead
- xiv. Provide notifications of Potential Delays; materials, manpower, production, access etc.
- M. Change Order work will require T&M tickets regardless of the terms (T&M, Lump Sum Cost Plus)
- N. Scope includes all necessary badging requirements, immunizations and background checks
- O. The lead responsible person (Foreman, Super, etc.) will be on site at all times during your construction activities including for your subcontractors. The lead person will provide access to the current project documents (RFIs, Drawings, Spec, Submittals etc..)
- P. All critical work activities including crane lifts, electrical hot work will require a competent person and safety professional.
- Q. Provide a person onsite for third party inspections.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A.

**END OF SECTION**

RIVERSIDE UNIVERSITY HEALTH SYSTEM  
(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

MEDICAL CENTER CARDIAC  
CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF  
CALIFORNIA

APPENDIX “B”  
CONTRACT DOCUMENT LISTING

**BID PACKAGE 01**  
**MISCELLANEOUS SPECIALTIES**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
06 10 53	Miscellaneous Rough Carpentry
10 11 16	Markerboards
10 26 00	Wall And Door Protection
10 28 13	Toilet Accessories
10 44 00	Fire Protection Specialties
10 51 13	Metal Lockers
12 24 13	Roller Window Shades
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Miscellaneous Specialties**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

**1. General Requirements**

- a. Provide and maintain all temporary fencing as shown on Appendix F – Logistics Plan. Include necessary moves as required to meet project schedule requirements.
- b. Provide and service two times per week three temporary toilets and two wash stations for project use. Location of temporary toilets as per Appendix F – Logistics Plan.

- c. Provide 200 hours for general labor to be used at the Construction Manager's direction.
- d. Provide the following signs to be mounted to the construction site fencing at all entrances:
  - “Danger Construction Site. Authorized Persons Only”
  - “Caution: Hard Hats, Safety Glasses, Safety Shoes required in this area at all times”
  - “Construction Personnel Only”
- Signs shall be black letters 3" to 4" tall, on a plain white background

## 2. **Visual Display Surfaces**

- a. Contractor shall furnish as noted and install all visual display surfaces, fastening devices, framing and trim finishes, accessories, including all necessary trim sections.
- b. Contractor shall unload and distribute all visual display boards and materials to designated location(s).
- c. Contractor shall identify and coordinate all required backing and support locations with the Bid Package 09 Framing, Drywall and Plaster.
- d. Contractor shall coordinate and align all visual display board joints with other building components.
- e. Prior to installation, Contractor shall fully inspect all visual display boards components for any deficiencies in material.
- f. Contractor shall clean all visual display boards prior to completion.
- g. Contractor shall remove all protective coverings from visual display boards prior to final acceptance by the Owner.

## 3. **Signage**

- a. Contractor shall furnish and/or install all signage assembly per documents.
- b. Contractor shall submit color, texture, and sign material indicated samples for each type and variety of signage.
- c. Contractor shall furnish and/or install all ADA Signage as shown or called out in Contract Documents, required by the Local Codes and as may be required.
- d. Contractor shall provide and install signs and posts for parking lot signage, including post footings and sleeves.
- e. In some locations, the required signage may require fastening on non-standard surfaces and/or assemblies. In such cases, Contractor shall identify each such condition and recommend to Construction Manager proposed fastening systems for review and approval by Owner and Project Architect. All costs associated with such approval processes and alternative fastening systems shall be included in this Bid Package.

## 4. **Toilet Compartments and Building Accessories**

- a. Contractor shall furnish and install all toilet partitions and compartments, urinal screens, and all accessories including, grab bars, toilet paper holders, toilet paper/napkin disposal receptacles, waste receptacles, seat cover dispensers, mirrors, hand dryers, soap dispensers, custodial accessories, and all other accessories.
- b. Do not start installation until floor protection is in place. Repair or replace floor protection upon completion of work.
- c. All toilet partitions shall be from the specified manufacturer and with the specified finish and color. All exposed toilet partition items shall be of the same finish and color, unless otherwise noted. Contractor shall provide doors for handicap partition walls and provide framework assemblies to allow all doors to fit in the drywall partitions. Contractor shall coordinate partition supports and backing with Bid Package for Framing, Drywall and Plaster.
- d. All toilet accessories shall be as specified without substitutions. Include all items as shown in all Contract Documents and as required by code. Coordinate all backing requirements with Bid Package for Framing, Drywall and Plaster.

- e. Contractor shall furnish and install all anchors, fasteners, trim, hardware, caulking and sealants as required.
- f. Contractor shall perform all final adjustments to partition doors and hardware prior to final acceptance as directed by Construction Manager.
- g. Installation of toilet compartment and building accessories – toilet compartments shall be ADA and Code compliant as indicated on drawings.
- h. Contractor shall perform final cleaning of all toilet compartments and building accessories – toilet, upon completion of installation.

#### **5. Operable Partitions – Folding Panels**

- a. Contractor shall furnish and install operable acoustical panel partitions. Work shall include all partitions, supports and support hardware, drilling of holes in structural members for support system, and all accessories, trim and specified finishes items.
- b. Contractor shall fully coordinate the partition support system with the Bid Package 04 Structural Steel, Metal Deck and Misc. Metals for a complete installation. Field measure all openings and clear distances prior to fabrication.
- c. Contractor shall fabricate panels, based on the actual on-site dimensions, providing the sound barrier between two rooms.
- d. Contractor shall conceal fasteners.
- e. Contractor shall fully test partitions prior to completion.
- f. Contractor shall fully adjust and final clean all related work prior to final acceptance.

#### **6. Fire Extinguishers and Cabinets**

- a. Contractor shall furnish, assemble, and install all fire extinguisher cabinets and accessories.
- b. Contractor shall furnish and install all fire extinguishers and accessories.
- c. Contractor shall coordinate fire extinguisher cabinet locations and the necessary rough-in/blocking/trim out requirements for installation with Bid Package 08 Framing, Drywall, Plaster and Ceiling Tile.
- d. Contractor shall protect all work that is part of this scope.
- e. Contractor shall install the final fire extinguishers into/onto the cabinets/brackets at the direction of the Contract and the authority having jurisdiction. Until that time construction fire protection shall be the responsibility of each contractor to comply with the specified fire protection requirements and the authority having jurisdiction.
- f. Contractor shall provide final clean of fire extinguishers and cabinets, upon completion of installation.

#### **7. Shade Systems / Roller Shades**

- a. Contractor shall furnish and install all recessed windows shade system / roller shades and accessories.
- b. All screws, clips, fasteners, mounting hardware and shims required for a complete and finished installation. Trim pieces to be installed to hide mounting hardware.
- c. Contractor shall adjust the recessed windows shade systems / roller shades to operate smoothly, easily, safely, and free of binding or malfunctioning throughout the entire operational range.
- d. Contractor shall field measure each window opening to ensure a proper fit. Recessed windows shade systems / roller shades conform to the shape of each opening and seal each opening with no more than 1/8" clearance at the sides and 1/4 inch at the bottom in fully closed position.
- e. Recessed windows shade system / roller shade operators shall be positioned to ensure accessibility, ease of operation and convenience.

- f. Each shade system / roller shade shall be tested by Contractor in full open and closed positions to ensure proper operation and clearance.
- g. Contractor shall provide final clean of all shade systems / roller shades, upon completion of installation.

#### **8. Final Cleaning**

- a. Performing all final cleaning services for all surfaces in the building to the condition expected in a normal commercial building cleaning and maintenance program. All materials used shall be compatible with the finishes. Contractor shall accept all work prior to completion.
- b. Clean all surfaces including the mechanical equipment. All equipment should be free of dust and visible debris at final acceptance.
- c. Power-washing exterior of building. Work shall include all exterior site concrete, stairwells, and walkways.

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

- A. The following specific work items listed below will be provided by others:
  - 1. None.

### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

### **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.

- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A at this time.

## **END OF SECTION**

**BID PACKAGE 02**  
**DEMOLITION**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Alternates
- 1.05 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<u>Specification Section</u>	<u>Description</u>
------------------------------	--------------------

*Increment 2*

General Requirements\*

Division 01

02 41 20                    Selective Demolition  
TIO\_S231455-33-00        Testing, Inspection, and Observation Program  
\*  
As applicable to work within this Bid Package.

B. Demolition,

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor to provide all haul off and waste material related to this scope of work.
2. Contractor to coordinate with other prime packages for salvage items removal prior to demolition.
3. For all concrete requiring saw cutting contractor to leave a clean, undamaged edge of existing concrete.
4. Contractor to apply and pay for all permits necessary to perform this scope of work.
5. Contractor to provide all necessary protection of adjacent work called to remain.

6. Remove existing finishes, adhesives or other materials that will conflict with new finishes scheduled in existing or newly remodeled spaces. Remove or modify partition, ceiling, bases and flooring finish substrates to accommodate new finishes as schedules
7. Remove existing partitions, doors, frames, soffits, millwork, fixtures, etc. On the demolition plan shown with dashed lines. Turn salvageable items over to owner at a location of the owner's choosing.
8. Remove and salvage existing equipment and wall mounted accessories for relocation by owner.
9. Remove general, mechanical and electrical material not necessarily shown, but required to be removed to complete work.
10. Cutting and patching required for new mechanical and electrical work in existing spaces shall be by respective contractors.
11. Contractor to verify with owner that hazardous material survey has been completed for materials to be removed/disturbed.
12. The contractor shall verify existing finishes and condition before construction begins.
13. Contractor shall coordinate demolition work phasing and Sequencing with owner prior to start of construction.
14. Erect dust-proof partitions as required by owner and Fire Marshall to protect adjacent area during construction.
15. Maintain required exists and means of egress during construction.
16. Protect mechanical and electrical services as required to remain in operation.
17. Remove ceiling systems as required to accommodate mechanical and Electrical work. See mechanical and electrical drawings for Approximate locations. Salvage tiles and grid for reinstallation When compete unless noted otherwise. See mechanical and electrical drawings for scope and extent of mechanical and electrical work.
18. During the demolition process there may be instances where the removal or abandonment of a fixture, duct, conduit or other piece of equipment may leave an opening in a required fire resistive assembly. As part of the demolition and remodeling process a fire-resistive "member" or "through" penetration (and/or open joint) resulting from such demolition work shall be firestopped or sealed in accordance with CBC for the necessary rating protection. Provisions for required firestop conditions shall be included as part of this section.
19. Patch "existing to remain" building components if damaged during demolition. Match adjacent materials and finishes.
20. Coordinate with the owner for the storage and relocation
21. Requirements of existing and salvaged items.
22. Verify existing sprinklers system with sprinkler contractor prior to demolition. Sprinkler contractor to modify and maintain system code requirements throughout the project.
23. Contractor shall remove/modify existing gypsum board and act ceilings as necessary for new ceiling layout and mechanical ductwork. See ceiling plan for new ceiling layout.
24. Contractor shall remove owner's existing wall mounted items and turn over to owner's stock in demolition areas.
25. Contractor to evaluate moisture mitigation at slab after flooring demolition. Verify flooring finishes installation and warranty requirements from manufacturer.

26. Use and pathway of temporary construction walls and temp dust barriers shall meet the requirements of the 2022 CFC, Section 3305.9 and comply with the hospital infectious control requirements. "temporary dust barrier" material shall satisfy one of the following:
  1. Noncombustible materials.
  2. Materials that exhibit a flame spread index not exceeding 25 when tested in accordance with ASTM E84 or UL 723.
  3. Materials exhibiting a peak heat release rate not exceeding 300 kw/m<sup>2</sup> when tested in accordance with ASTM E1354 at an incident heat flux of 50 kw/m<sup>2</sup> in the horizontal orientation on specimens at the thickness intended for use. Please note: if the material is to comply with item #2 identified above, please be sure the material has a Class A flame spread and/or does not exceed a flame spread index of 25

#### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

- A. The following specific work items listed below will be provided by others:
  1. Lower Level Plumbing demo to be provided by Plumbing Contractor

#### **1.04 ALTERNATES**

- A. Furnish and Install Permanent Walls at Great Hallway instead of Temporary Barriers

#### **1.05 ALLOWANCES**

- A. N/A at this time.

**END OF SECTION**

**BID PACKAGE 03**  
**CONCRETE**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
03 10 00	Concrete Formwork
03 20 00	Concrete Reinforcing
03 25 00	Concrete Anchors in Cured Concrete
03 30 00	Cast-In-Place Concrete
03 54 16	Hydraulic Cement Underlayment
03 60 00	Grout and Dry Pack
07 92 10	Interior Joint Sealants
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Concrete**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

**1. Site and Building Concrete**

- a.** Contractor shall furnish and install all cast-in-place concrete (interior and exterior areas) including but not limited to structural foundations, footings, stairs, structural concrete filled decks, pads, retaining walls, site walls, planters, light pole bases, curbs, swales, gutters, ramps, detectable warnings/truncated domes, pedestrian concrete pavement, concrete seat

walls and house keeping pads. Contractor to coordinate with M.E.P. trades for pad sizes prior to placement.

- q. All concrete textures and finishing of all concrete work including sub slabs shall be compatible with all other building components and finishes, e.g., waterproofing, tile flooring, flooring, adhesives, and paint.
- r. Contractor shall furnish and provide drilling and grouting for rebar dowels, if required
- s. Grouting and/or dry packing of all base plates as shown and/or specified. Solid grouting of all hollow metal frames as shown and/or specified. (Install Styrofoam block outs at locations where hardware will be installed, e.g., hinges, strike, closer.)
- t. Contractor shall fill/repair Grout/Concrete all areas from Demo and removal of Equipment.
- u. Additional saw cutting of control joints, above or on the sides of drain lines placed in concrete slabs. All such saw cutting shall be performed after securing the approval from the Architect and/or Owner.
- v. Protection of all in-slab and/or below-slab embeds during and after concrete placement. This specifically includes, but is not limited to, Walker duct, floor boxes, and floor drains
- w. Contractor shall ensure concrete fill around sleeves and penetrations below and around foundations, retaining walls, and curb areas, as required.
- x. Contractor shall provide block outs for all building materials/components/utilities as required. Include patching/infill of block outs, as required. Coordinate the sizes and locations with respective bid package.
- y. Contractor shall provide and maintain rebar fall / impalement protection in accordance with local jurisdictional safety requirements.
- z. Contractor shall remove from site all spoils generated by the scope of this Bid Package.

2. **Waterproofing**

- a. Contractor shall furnish and install all waterproofing products as specified and in full compliance with the manufacturer's instructions and Contract Documents.
- b. Contractor shall furnish and install all waterproofing membrane systems or flashings applied to all surfaces as required by the Contract Documents with the exception of roofing waterproofing. The following is a general description of locations that are included but not necessarily all inclusive: Cold Fluid Applied waterproof membrane system at all structures (walls, floors, and pits) that are in contact with earth as necessary to provide complete waterproofing protection.
- c. Contractor shall furnish and install all pedestrian traffic coatings / toppings and any mid-slab waterproofing systems.
- d. Contractor shall furnish and install all water repellents (penetrating and anti-graffiti coatings) to all vertical and horizontal surfaces as required by the Contract Documents and as specifically defined in this scope of work.
- e. Contractor shall furnish and install all membrane strips, sealants or other manufacturer approved products and methods to fill and "bridge" gaps at separation/cold joints typically located between intersecting walls and where expansion is required. Waterproofing at these areas shall also be applied in a manner that will allow normal movement of these walls without damaging the integrity of the membrane.
- f. Contractor shall furnish and install a protection course in the areas as shown. The application of the protection course shall conform to the manufacturer recommendation/requirements.
- g. Contractor shall install the protection course system continuously without gaps over the horizontal membrane. This protection course system shall be adhered to the waterproofing as recommended by the manufacturer to allow concrete placement without movement of the board.
- h. The below-grade waterproof membrane shall overlap the full width of the horizontal portion of footings at all retaining, planter and site walls.
- i. Contractor shall install all waterproofing with neat, clean even lines at grade level and at exposed conditions. The final termination point above grade shall be determined by the Architect prior to start of work. Contractor shall provide proper elevation/termination points at areas of waterproofing as required by Contractor. Contractor shall snap lines between the

termination points of the waterproofing. All layouts shall be reviewed with the Contractor and Concrete Contractor prior to application. Contractor shall remove all excess or incorrectly located waterproofing materials.

- j. Contractor shall properly seal and reinforce areas around all penetrations in the waterproofing membrane in accordance with the manufacturer's recommendations and Contract Documents.
- k. Contractor shall furnish and install all sealants and caulking as it applies to this Bid Package. Scope of work includes preparation, backer rod materials, and sealant for joints as shown. Contractor shall anticipate that joints of a specific width and depth may vary due to differing construction tolerances.

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

- A. The following specific work items listed below will be provided by others:
  - 1. Bid Package 3 Masonry: Contractor to provide all masonry and associated reinforcing steel for masonry. Reinforcing steel dowels from footing into masonry by Bid Package 02.

### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

### **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task

lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.

H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

A. N/A

## **END OF SECTION**

**BID PACKAGE 04**  
**STRUCTURAL, METAL DECK AND MISC. METALS**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
05 12 00	Structural Steel
23 05 29	Hangers and Supports for HVAC Piping And Equipment
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Structural Steel and Metal Deck**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all embedded anchor bolts, fasteners, inserts, steel templates, embeds for steel columns, structural steel, and miscellaneous steel attaching to concrete and masonry work. A separate template shall be provided for each base plate and configured bolt pattern location, clearly marked and identified for placement by others. Coordinate and layout all embedded items for installation by Bid Package for Concrete.
2. Contractor shall prepare shop drawings for installation locations of embeds installed into masonry. Contractor to deliver embeds to site and unload for installation by others. Contractor to verify installation locations prior to fabrication of steel.

3. Contractor shall furnish and install all bolts, fasteners, nuts, washers, inserts, and other miscellaneous items, as required to attach and install all items included in this contract to steel and all other dissimilar materials.
4. Contractor shall furnish and install all continuous and individual steel plates and angles with welded studs for embedment into concrete. Coordinate lengths with Bid Package 04 Concrete (Site, Offsite and Structural), Masonry and Waterproofing and provide lengths as required.
5. Contractor shall furnish and install all structural and miscellaneous steel items, for the complete installation and erection comprised of wide flange beams, girders and columns, tube steel columns and braces, plates, clips, steel pipe, bent plates, channels, angle iron, steel rods, railings and checker plate. Include all required bolts, fasteners, inserts, and sleeves, for the execution of this work. Coordinate work with other trades requiring steel to be fabricated to receive attachments. (i.e. operable partitions, aluminum window system).
6. Contractor shall furnish and install all steel structural steel members. Contractor shall maximize shop fabrication efforts, in order to reduce the amount of field welding.
7. Contractor to provide shop priming/coating per Contract Documents for all steel.
8. Contractor shall verify all dimensions of work and fully comply with all applicable codes. Field measurements of all locations shall be performed prior to fabrication. Contractor shall provide all layouts as indicated on the Contract Documents.
9. Contractor shall furnish and install all metal decking as per the Contract Documents.
10. Contractor shall furnish and install all structural steel plates, bent plate, angles, and tube steel at edge condition that support and close metal decking.
11. Contractor shall furnish and install all loose angles as required for deck supports at columns and reinforcing at underside of metal deck openings as shown on the Contract Documents.
12. Contractor shall include offsite storage of materials until required on the jobsite.
13. Contractor shall provide metal deck "cut outs" and support at structural steel moment and braced connection plates that interfere with the elevation of metal deck.
14. Contractor shall deliver all metal decking and accessories to the jobsite as directed and shall be rigged and hoisted into place by the Contractor. Distribution of decking on structure is the responsibility of this Contractor. Contractor shall tack all deck in place immediately after spreading the deck.
15. Contractor shall provide touch-up of prime painting and galvanizing of decking as shown and/or specified in the Construction Documents.
16. Contractor to furnish to jobsite all anchor bolts / embeds embedded in work by others. Include shop drawings detailing location of embeds.
17. Contractor shall clean all welds and removal of ferrule type materials associated with installation.
18. Contractor shall coordinate all shop fabrication/field inspection. Contractor shall become completely familiar with the Owner's Third Party testing and inspection requirements as well as the material sourcing requirements, which include the coordination of mill certificates, labeling, tagging, and stamping of steel during the fabrication process, shipment to jobsite, and erection. No unidentified steel shall be used by the Contractor. All steel shall have mill certifications and be properly identified (e.g., source, heat or melt number). Contractor shall provide adequate access for Inspectors to all elements of work. Means of all such access include ladders, lifts, and scaffolds. All costs for re-inspection of any work as a result of previous failed inspection shall be the responsibility of this Contractor. All Third Party Testing and inspection shall be by the Owner.
19. Contractor shall verify and accept elevations and placement of anchor bolts and embedded items prior to each erection sequence of work. Contractor shall survey all work and notify Construction Manager immediately of any problems so that such problems can be corrected.
20. Contractor shall furnish and install safety cables (2 strand minimum) and all required miscellaneous steel (e.g., steel plates, angle iron posts) to support cables in all areas. Safety cable and toe board installation shall comply with OSHA and local codes. Cables shall be

installed by the Contractor around the entire perimeter of the building (floors and roof) and at all interior openings, e.g., duct shafts/penetrations, elevator shafts, stairways, and/or areas where metal decking cannot be installed due to erection/sequence. Safety cables shall also be installed on stair flights and landings. Contractor shall coordinate this work with the Owner and other affected trades for layout and method of attachment prior to start of work. Removal of all safety cables, toe boards, and associated materials related to the Project shall be the responsibility of this Contractor. The Contractor shall notify and obtain approval from the Construction Manager prior to removing any materials. Posts to be located in areas where they will not be exposed in finished areas when removed. Provide location submittal for approval prior to installation.

21. Temporary safety cables shall be installed by this Contractor in a manner that allows the cable to be removed in isolated sections so that other trade work may continue, e.g., separate cables for each bay - column to column. If required, modify and re-route cables to allow access and safety for other trades.
22. Contractor shall remove cables and miscellaneous steel in phases as required by construction sequencing and Owner. All miscellaneous iron that penetrates the concrete shall be cut off by the Contractor below the surface of the concrete. All exposed steel (at areas of post removals) shall be ground flush and filled as necessary for appearance by this Contractor.
23. Contractor shall protect all floor and roof openings during erection per OSHA and local requirements. Contractor shall immediately replace all opening protection removed for installation of work.
24. All items furnished only to the jobsite shall be off-loaded and stored by Contractor, at a location designated by the Construction Manager and Owner.
25. Contractor shall provide construction power for welding and task lighting from designated sources as per Owners approval. Contractor shall provide proper ventilation (i.e., fans, etc.) in the areas that work is being performed.
26. Contractor shall field measure all miscellaneous steel items that install into embedded sleeves, inserts, and bolts, before fabrication.
27. Contractor shall shop fabricate any structural steel systems in the largest possible sections for delivery and installation in the field to reduce field fit-up and alignment issues. Contractor shall grind smooth, fill all field connections, and ensure that all rails and supports are free from sharp edges. All welds shall be prepared in accordance with the Contract Document requirements and be visually acceptable.
28. Contractor shall verify that all work, including steel stair framing, shall dimensionally comply with all applicable building codes. Proper vertical and horizontal distance and clearance in stairs shall be coordinated with Bid Package 02 Concrete, Rebar and Grading before fabrication and erection. Contractor shall maintain proper clearances between stair framing and wall construction so that fire ratings can be maintained, e.g., multiple layers of drywall and/or fireproofing material if applicable to this project.
29. Immediately after all steel work is complete, Contractor shall clean all exposed steel to be painted from oils, scale, piece marks, and other elements detrimental to applying finish paint. Contractor shall coordinate with Bid Package 16 Painting and Wall Covering for painting of steel as specified in the Contract Documents. All exposed steel to be painted shall be treated as architecturally exposed structural steel.

#### Miscellaneous Metals

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish, fabricate and install all railings, guard rails, decorative metal, ornamental gates, fencing, ladders, safety cages, bollards, steel downspouts, steel framing and

supports, counter supports, posts, and fittings and perform all required welding and certifications. All such work shall be cleaned, ground smooth, and touched up with the specified paint/coating for an acceptable appearance.

2. All railings (guard and hand), decorative metal, and fencing shall be true, plumb and aligned with adjacent sections.
3. Contractor shall furnish and install all metal pan stairs.
4. Contractor shall coordinate equipment and material layout with other bid packages. All conflicts shall be brought immediately to the attention of the Construction Manager.
5. Contractor shall furnish and install all fencing, guard railing, and hand railing hardware as noted in the Contract Documents.
6. Contractor shall furnish and install all specified finishes to ladders, safety cages, bollards, downspouts, steel framing and supports, posts, handrails, guardrails, decorative metal panels, and fittings as required in the Contract Documents.
7. Contractor shall verify that all work, including railings and fencing, shall dimensionally comply with all applicable building codes. Proper vertical and horizontal distance and clearance in stairs shall be detailed and verified by Contractor before fabrication and erection. Contractor shall maintain proper clearances between stair framing and wall construction so that fire ratings can be maintained, e.g., multiple layers of drywall and/or fireproofing material if applicable to this project.
8. Any priming and/or painting and/or coating material shall be of color selected and approved by the Architect.
9. Prior to ordering materials, Contractor shall verify dimensions in the field, and ensure that all specified hardware is fully compatible both in function and in physical dimensions and offsets of hardware with the fencing and railing systems being provided.
10. Prior to installation, Contractor shall fully inspect all decorative and non-decorative metals, fencing and railing components for any deficiencies in material.
11. Contractor shall be responsible for all fencing and railing related coring. All coring shall comply with the necessary specification and code requirements. All coring shall be in accordance with the Contract Documents and shall be coordinated with other bid packages.
12. Contractor shall be responsible for all grouting associated with work of this Bid Package.
13. Contractor shall participate in Project Building Information Modeling coordination per the requirements below.

## PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

### 1. INTRODUCTION

1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

### 2. MODELING REQUIREMENTS

2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.

2.2 The following trades are required to produce a 3-D model:

- Structural Steel
- Plumbing
- Fire Sprinkler

- Electrical
- HVAC

2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.

2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.

2.5 BIM Level of development (LOD) requirement.

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.

2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

### **3. TECHNOLOGY PLATFORM AND SOFTWARE**

3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.

3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct. NWC/.NWD export options are preferred.

3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

### **4. QUALIFICATIONS OF BIM PERSONNEL**

4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

### **5. PARTICIPATION REQUIREMENTS**

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation and/or changes in contract document design. Prime Contractors shall conduct proactive model

review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.

5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

## 6. BIM WORK PLAN

6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

- a. Project sequence and schedule for initial delivery of each model
- b. Schedule for updating of each model and preservation of versions of each model
- c. File formats used for project submittal and file exchange
- d. Compliance with Folder Structure, File Naming, Object naming conventions
- e. Utilization of Web Site and FTP Sites
- f. Trade-specific LOD requirements
- g. Model origin (common 0,0,0 location)
- h. Coordination report format
- i. Model sign-off procedure
- j. Field validation
- k. As-built model creation
- l. Final BIM deliverable

## **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. None.

## **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.

- F. Coordinate the use of premises under the direction of the Construction Manager.

## **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. Not at this time.

## **END OF SECTION**

**BID PACKAGE 05**  
**MILLWORK**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
06 10 53	Miscellaneous Rough Carpentry
06 41 19	Plastic Laminate-Clad Wood Casework
07 01 56	Membrane Roofing Modifications
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Millwork**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor to provide and install all cabinets, casework, shelving, built-in island casework, countertops, metal trim, vents and grommets including anchorage as indicated in the contract documents.
2. Contractor to provide and install all etched signage in the casework.
3. Provide backing location requirements for work within this Bid Package. Information must be submitted in writing no later than the commencement of the framing stage.
4. Provide and install trim, spacers, shims, scribe, bracing, fillers and caulk at all walls for a neat professional installation.

5. Provide and install all bent plate or fire treated lumber for casework anchorage as indicated in the contract documents. Provide and install steel angles as required for countertop support as per contract documents.
6. Contractor to coordinate with other trades that may be running within the casework to accommodate routing of utilities.
7. Hoisting of all materials. Contractor shall deliver and stock materials per sequencing of rooms or areas as directed by Construction Manager. Material shall be fabricated to allow for stocking through doorways and/or opening that will exist at the time of jobsite delivery.
8. Contractor agrees to provide appropriate storage facilities to temporarily house the casework for this project. Upon delivery, contractor shall inventory, offload and store the casework components in the temporary storage facilities. During the time of delivery, contractor shall notify Construction Manager in writing of any shortages in materials furnished, as well as any defects or blemishes contained in the finished products. Contractor agrees to progressively stage and install the stored casework components in a work sequence as requested by Construction Manager.
9. Plumbing and electrical fixtures for casework shall be provided and installed by others. All openings and holes in casework and tops for plumbing fixtures by this contractor. Coordinate requirements with associated trades.
10. Provide and install all required casework hardware as indicated on the contract documents.
11. Provide and install all wood framing for casework as indicated in the contract documents.
12. Provide and install all plywood beneath countertops.
13. Provide and install all laminate, solid surface, applied wood paneling, solid wood panels, and solid polymer caps as indicated in the contract documents.
14. Provide and install accessible counters at sink areas as indicated in the contract documents.
15. Provide and install all wood paneling / architectural woodwork at walls, ceilings, wall caps and soffits as noted on the contract documents. This bid package shall also include the staining / finishing as noted on the contract documents of wood installed by this bid package.
16. Provide protective measures for installed casework upon completion.
17. Provide for keying of all casework as noted on the contract documents.

## **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. None.

## **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

## **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.

- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A

## **END OF SECTION**

**BID PACKAGE 06**  
**ROOFING AND SHEET METAL**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
05 50 00	Metal Fabrications
05 50 10	Interior Metal Fabrications
07 01 56	Membrane Roofing Modifications
07 41 13	Metal Roof Panels
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Roofing**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install roofing system. Install the specified roof system in accordance with both the Contract Documents and the manufacturer's requirements. Where a conflict exists, the more stringent requirement shall apply. Install products as recommended to receive the specified guarantees and warranties (special).
2. Contractor shall furnish and install air/vapor barrier as indicated on the contract documents.
3. Contractor shall furnish and install roof insulation, rigid metal deck insulation, substrate boards, cant boards, crickets, curbs, caulking, adhesives, mechanical anchors, and sealants, wood blocking and nailers as required for a complete roofing system.

4. Contractor shall furnish and install all expansion control as shown in the contract documents.
5. Inspecting and accepting all substrate surfaces and building components prior to application of roof systems. Contractor shall timely notify Contractor in writing of all problems requiring corrective action. Upon Contractor acceptance of substrate surfaces and building components, Contractor shall install roofing system. If ponding or other unacceptable conditions are discovered after the application is complete, Contractor shall correct the problem at no additional cost.
6. Contractor shall provide all seal and flashing of all roof penetrations as approved by roof system manufacturer to seal and flash all penetrations as required. Penetrations may include electrical conduits, plumbing/mechanical pipes and/or structural supports. Install pitch pans and roof jacks (furnished by others) as required. Contractor shall include filling and sealing of all pitch pans and roof jacks as required by the manufacturer. (Reference the architectural, structural, mechanical, plumbing, and electrical plans for general locations of roof penetrations.)
7. Contractor shall clean off the roof deck of loose dirt/dust prior to start of work. Contractor shall clean all roof/overflow drain assemblies after work is complete.
8. Contractor shall furnish and install the number of plies of roof membrane as required by the Contract Documents and properly sealed over the top of each roof equipment pad or platform as required to make each location watertight.
9. Contractor shall perform specified tests on roof areas at the completion of work. Contractor shall correct any “ponding” or leaks prior to acceptance.
10. Contractor shall furnish and install flashing, including flexible lead flashing, at all roof and overflow drains, as shown and/or specified and as required by the roofing manufacturer.
11. Contractor shall furnish and install roof walk pads, as shown and/or specified and as required by the roofing manufacturer.
12. Providing adequate protection to all areas of work prior to and during construction to ensure proper installation.
13. Contractor shall include all fees as applicable to apply for and provide complete roofing warranties per the Contract Document requirements.

C. Sheet Metal

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all sheet metal (galvanized, stainless steel and aluminum-zinc alloy-coated steel) items including all but not limited to formed metal wall panels, column covers, sheet metal at exterior wall base continuous flashing, roof flashing, counter flashings, saddle flashings, door drip flashing, sill pans at door headers and windows, counter and flexible flashings, self adhered flexible flashing, cap flashings for all mechanical equipment at roof, duct penetration flashings, coping caps, break metal and aluminum support brackets at hollow metal frames, roof screens, backer rods, expansion/seismic joint assemblies, composite wall panels, hanging gutters, downspouts, break metal, and parapet caps as required in the Contract Documents.
2. Contractor shall furnish and install all through-wall overflow scuppers.
3. Contractor shall furnish and install all clips, cleats, fasteners, adhesives, mastic, solder, caulking, and sealants for this scope of work, as required for weatherproofing and appearance. Include caulking between all work and adjacent, dissimilar materials for both interior and exterior items. Caulking materials shall be compatible with all building materials as noted in the Contract Documents.
4. Contractor shall furnish and install all sheet metal covers, edge metal/gravel stop for rooftop mechanical equipment pads.
5. Contractor shall furnish and install all formed metal wall panels at the mechanical screen.
6. Contractor shall furnish and install all 2x wood nailers at roof for contractor’s work and equipment supports receiving roofing and/or sheet metal.

7. Contractor shall furnish and install all expansion/seismic joint cover assemblies.
8. Contractor shall furnish and install flashing at thresholds sill pans.
9. Contractor to furnish and install all sealant work related to metal flashings.
10. Contractor shall furnish and install all sealant, shims, furring, cant strips, stiffeners, and clips as required properly supporting, sloping, and attaching flashing assemblies to parapet framing. Properly flash and seal around cap flashing penetrations. Provide factory finished materials as required.
11. Contractor shall perform specified tests on roof areas at the completion of work. Contractor shall correct any “ponding” or leaks prior to acceptance.
12. Contractor shall furnish and install all drips above doors, window openings including associated sealant and backer rod.
13. Contractor shall furnish and install all flashings within the enclosure system.
14. Contractor shall furnish and install all sheet metal caps at columns.
15. Contractor shall furnish and install all sill pan and flexible flashing at floor and deck areas as specified in the Contract Documents.
16. Contractor shall furnish and install all fixed-formed metal louvers, screens, and accessories for a complete installation per the Contract Documents.
17. Provide adequate protection to all areas of work prior to and during construction to ensure proper installation.

D. Other Items

1. Contractor to provide and install all roof specialties and accessories.

**1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. None.

**1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

**1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.

- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A

## **END OF SECTION**

**BID PACKAGE 07**  
**DOORS AND HARDWARE**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
07 92 10	Interior Joint Sealants
08 12 13	Standard Hollow Metal Frames
08 13 13	Standard Hollow Metal Doors
08 14 24	Plastic Laminate-Faced Wood Doors
08 17 13	Integrated Door Assemblies
08 31 16	Access Panels
08 42 43	ICU-CCU Entrances
08 71 00	Door Hardware
08 71 13	Automatic Door Operators
08 81 10	Interior Glass Glazing
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Doors and Hardware**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish hollow metal door and window frames.
2. Contractor to furnish and install wood and hollow metal doors, and door hardware.

3. Contractor shall furnish and install all louvers specified in wood or hollow metal doors.
4. Contractor shall provide and perform field welding/assembly of oversized hollow metal frames. Contractor shall provide and perform all preparation and spot framing of field welded joints.
5. Contractor shall furnish and install all door hardware, including but not limited to panic, exit devices, mortise and cylinder locksets, key cabinet, hinges, closers, kick plates, door stops, weather stripping, thresholds, stainless steel tread plates, and pulls. Coordinate access control installation with BP-06 Electrical.
6. Contractor shall undercut doors to accommodate the various types of floor finishes and HVAC requirements.
7. Contractor shall prepare hollow metal doors and frames for the security sensors, including predrilling the wire and screw holes.
8. All finish hardware (including door seals, door mutes and silencers) shall not be installed until doors and frames are completely finished/painted (except as directed in writing by Construction Manager). Contractor shall remove and reinstall hardware if installed before finishing/painting.
9. Contractor shall furnish and install the temporary locksets to be utilized during the construction phase.
10. Contractor shall furnish permanent lock cylinders and keys as specified.
11. Contractor shall be responsible for receiving, offloading, storage, and coordinating with installing contractor for door and window frames, distribution of doors, and hardware from storage area to door openings.
12. Contractor shall include all minor fittings, adjusting and/or shimming of hollow metal doors to openings if required by field conditions.
13. Contractor shall adjust and lubricate finish hardware to ensure proper operation.
14. Contractor shall adjust seals, finish hardware, and doors after HVAC systems are balanced. Provide a written report to Construction Manager noting any deficiencies with door and hardware operation. Maintain proper adjustment throughout warranty period.
15. Contractor includes finish touch-up of minor nicks and scratches that may occur after installation.
16. Contractor shall provide operation and maintenance instructions for all doors and finish hardware.
17. Contractor shall furnish and install door-mounted louvers, and door mounted devices.
18. Contractor shall coordinate all glass and glazing requirements that are not included as part of the hollow metal door with Bid Package for Glazing.
19. Contractor to provide and install all door thresholds shown on door schedule and door hardware specification.
20. Provide door/frame prep and hardware interface electrified door hardware to be coordinated with Bid Package for Electrical.
21. Contractor shall coordinate with Contract Documents regarding wall thickness.
22. Contractor shall provide temporary infill of openings, if doors not installed prior to inclement weather.
23. Contractor shall provide all mineral wool required around the door frames.

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. Bid Package 11 Glazing: Contractor to provide glass for hollow metal doors and frames.
2. Bid Package 11 Glazing: Contractor to provide and install all aluminum doors frames and associated door hardware.

### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

## **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

N/A

### **END OF SECTION**

**BID PACKAGE 08**  
**GLASS AND GLAZING**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
07 92 00	Joint Sealants
08 71 13	Automatic Door Operators
08 81 10	Interior Glass Glazing
08 83 13	Mirrored Glass
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Glass and Glazing**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all aluminum window and door assemblies including but not limited to frames, aluminum framed entrances and storefronts, aluminum windows, flat glass, spandrel glass, metal panels integral to system, tempered and laminated glass, fire-protection-rated glazing, insulation integral to system, gasketing systems and accessories as depicted in the Contract Documents.
2. Contractor shall furnish and install all glass and glazing for hollow metal and wood doors and hollow metal window frames.

3. Contractor shall provide all aluminum materials in finishes approved by the Architect and/or in accordance with the Contract Documents. Contractor shall coordinate finishes with adjacent, similarly finished materials.
4. Provide and install aluminum sun shades as shown on Contract Documents. This includes all drilling of steel for attachment.
5. Contractor shall furnish and install all required inserts, anchors, shims and blocking as required to properly install and/or attach Contractor's work to all other building components. Contractor includes all drilling, tapping, welding, fasteners, and other items as required for a complete and operable system.
6. Contractor shall furnish and install all caulking and joint sealants at all windows and Aluminum Doors as required for a watertight system and appearance. Include caulking between all contract work and adjacent dissimilar materials on both interior and exterior side of systems. Caulking materials shall be compatible with all building materials and per approved contractual specifications.
7. Contractor to provide and install all isolation strips as shown on the Contract Documents.
8. Contractor shall furnish and install all finish hardware, include thresholds, for aluminum door and window assemblies as specified in the Contract Documents. Contractor is responsible for keying per Owner keying schedule.
9. Contractor shall provide and install handicap door operators at storefront doors complete. This includes provision of the power booster, controls circuits and all work beyond power booster.
10. Contractor shall furnish and install all factory-finished aluminum break metal, miscellaneous trims, drywall receivers, sill flashings, bent flashings, and reveal flashings at aluminum door and window assemblies, as required for a complete and finished system installation.
11. Contractor shall furnish and install glazing with Solar Control Low E Coatings as specified in the Contract Documents.
12. Unless steel supports for the storefronts and curtain walls are specifically shown on the drawings, this contractor has full responsibility for the structural support of their own systems. Provide steel in metal panel sections, mullions or elsewhere as needed.
13. Contractor shall coordinate frame throats with Contract Documents for wall thickness.
14. Contractor shall provide temporary infill (plywood, minimum) for long lead items (glass or frames)
15. Contractor shall clean all glazing at the completion of work, including removal of all labels, stickers and packing materials. (All installation-related debris and material shall be removed daily.)
16. Prior to ordering materials, Contractor shall verify dimensions in the field, and ensure that all specified finish hardware is fully compatible both in function and in physical dimensions and offsets of hardware with the aluminum door and frame systems being provided.
17. Prior to installation, Contractor and Construction Manager shall fully inspect all glazing for any deficiencies in material.
18. Contractor shall clearly identify with labels each type of glass. Labels shall remain in place until glass is installed, one exception, labels shall be removed immediately from sealed insulating glass units.
19. Contractor shall provide full coordination of all work to be installed per the Contract Documents. Coordinate dimensions, layout, sub framing, and work by other trades to ensure proper fit and finish.
20. Contractor shall provide details and engineered calculations for various components as required by Contract Documents.
21. Contractor shall field verify all openings prior to fabrication.
22. Contractor shall isolate all aluminum materials properly from all other building components.
23. Contractor's shop drawings shall provide sufficient detailed information to locate and install all backing and support members that are provided by other trades for use by this Contractor. Failure of Contractor to indicate all backing requirements on Contractor's shop drawings will result in this Contractor being fully responsible to provide the omitted backing.

24. Contractor shall fully coordinate support systems of Contractor's work with Architect and Structural Engineer. Additionally, Contractor shall coordinate structural details with installing trades as necessary.
25. Contractor shall provide all delivery, storage and handling of the glass and glazing in accordance with manufacturer's recommendations. All glass and glazing shall be stored to avoid water and direct sunlight.

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

- A. The following specific work items listed below will be provided by others:
  1. Bid Package 10 Doors and Hardware: Contractor to provide all hollow metal doors and frames and hardware associated with hollow metal doors and frames.

### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

### **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

#### **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

#### **1.07 ALLOWANCES**

- A. Not at this time

**END OF SECTION**

**BID PACKAGE 09**  
**FRAMING, DRYWALL, PLASTER AND SHIELDING**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

A. Work Included

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

**Specification Section      Description**

07 21 00

Thermal Insulation

\* As applicable to work within this Bid Package.

B. Scope

1. Repair existing fire rated walls within scope as required to maintain rating, typ.
2. Provide sister studs where new backing plates are required at existing walls which are not 16ga studs, typ.
3. Where fire rated walls need to be repaired, upgrade head of wall and fire penetrations to meet detail ULI design no. U419
4. Scope of work consists of the project area and adjacent areas within the 1st level, 2nd level and lower level. Include in bid all work necessary to address new scope including work on nights and weekends. Scope of work shall be coordinated within all disciplines including structural, mechanical, electrical, plumbing, low voltage, medical gas, fire alarm, fire sprinkler and equipment vendor requirements. Review all drawings to obtain complete scope of work. General contractor to coordinate work among multiple disciplines.
5. See sheet ae151 for phasing plans and sheet ae152 for phasing ceiling plans. Coordinate all work within all disciplines.
6. All walls requiring shielding shall have lead shielding extend to a height of 7' - 0" above floor. Lead batten strips, disks and patches shall cover all joints and intrusions into walls, ceiling or floors including j-boxes or other reasons.

7. All doors and windows contained in a wall shall have a lead equivalent shielding thickness equal to or greater than prescribed for that wall.
8. For all boxes to be installed along rated walls, provide 5-sided box detail per Detail
9. All interior partition not tagged shall be 4" metal stud.
10. Install Access Panels as required.

#### Metal Stud Framing

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all cold formed metal framing and light gauge metal framing systems in strict conformance to the Contract Documents.
2. Contractor shall receive, distribute and install hollow metal door frames.
3. Contractor shall furnish and install all expansion bolts and epoxy bolts for framing systems anchoring into existing concrete/masonry.
4. Contractor shall furnish and install all anchor bolts for light gauge metal framing embedded in new concrete or masonry work. Provide quantity survey and layout as required. Contractor will verify layout prior to material installation.
5. Contractor shall furnish and install all framing accessories as applicable to this Contract's scope of work, e.g., straps, bent plates, clips, "stickers", shims, angle fasteners, hold downs, as shown on plans and required to attach/support light-gauge framing to building structure. Framing accessories shall be installed as required to provide "true and straight" work especially where this contract work is attached to other building components, e.g., structural steel, metal deck edge form, concrete, masonry, and pre-cast. Particular attention shall be paid to openings for windows, doors, and close tolerance conditions.
6. Contractor shall furnish and install all wires, hangers, and straps to support work included in this contract. All work and suspension systems to comply with code requirements.
7. Contractor shall furnish and install all framing and suspending structural systems in order to install work under obstruction, e.g. under plenum mounted equipment, and ductwork.
8. Contractor shall furnish and install all seismic bracing and supports as required at all walls and suspended drywall ceilings.
9. Contractor shall furnish and install blocking/backing as shown on Contract Documents. Contractor shall also include backing for toilet partitions.
10. Contractor shall furnish and install slip track at all areas.
11. Contractor shall furnish and install all wall end caps.
12. Contractor shall install steel counter supports provided by others.
13. Contractor shall furnish and install all light-gauge structural parapet roof, soffit ceilings and floor joist systems as noted on the structural drawings. Provide and install all attachment hardware, bolts, nuts, and washers as required to install same to the building structure. Custom size, drill and cope components as required to fit structural steel and ensure a level floor surface and properly pitched roof surface. Provide flat plate on top of joists at all areas where metal deck does not land squarely on joists. Frame out and support all penetrations.
14. Contractor shall furnish and install all hat channels, furring, backing behind expansion joints, sheet metal items and other items requiring same.
15. Contractor shall furnish and install all draft stops per the Contract Documents.
16. Contractor shall furnish and install all framing /drywall work at opening penetrations required for other trades and equipment, e.g., ducts, fire dampers, pipes, conduits, lights, elevator rail brackets, doors, frames, and J-boxes.
17. Contractor shall furnish and install light-gauge framing and drywall soffits under stair assemblies as required by the Contract Documents. Include all necessary attachment angles to the structural steel stair framing.

18. Contractor shall furnish and install light-gauge framing and drywall under elevator trusses and shaft walls. Provide all necessary components to attach work to elevator trusses, walls and ceilings.
19. Contractor shall furnish and install all light-gauge framing supports/backing for attachment of aluminum soffit/fascia/storefront systems (by others) to the structure per contract documents.
20. Contractor shall furnish and install all rated enclosures, soffits, shafts, and penetrations for plumbing, electrical, HVAC ducting/piping, elevator and other items as required by the Contract Documents.
21. Contractor shall furnish and install all fire/smoke-rated construction and shall maintain continuous required ratings at all areas including, intersections of dissimilar construction, e.g., metal decking and concrete, steel. Include fire-safing, fire barrier sealants, and drywall/taping compound as required by the Contract Documents and by code requirements.
22. Contractor shall furnish and install all steel plates located at the underside of metal decking for top track anchorage. Include any/all compression seals and fire-safing at these areas.
23. Contractor shall furnish and install all new walls, and ceilings areas to be constructed from metal studs. All notes referring to nailer sills, headers, backing are to be installed using metal studs and/or accessories.
24. Contractor shall furnish and install all metal studs and final drywall configurations will match adjacent surfaces and be true and flush with adjacent new construction. This may require custom stud sizes and/or shimming/furring as required.
25. Constructing the elevator shaft in a code approved manner. This includes extending drywall and furring over exposed steel beams (if applicable). All surfaces shall be flush and/or sloped as required. Furr out at sill angles and door operators. Include all patching as required around penetrations in shaft, e.g., elevator guide rails, J-boxes, conduit, and pipe. Fully coordinating the framing requirements in the shaft and at the hall entrances with the Elevator Contractor.
26. Installing, maintaining and removal of temporary handrails in the interior stair shafts. Temporary handrails shall be installed immediately after wall framing in each stairwell is complete. Temporary rails must meet OSHA requirements and may be constructed out of light-gauge framing materials. Rails shall be removed prior to installation of drywall.
27. Contractor shall furnish and install all miscellaneous steel gussets, anchors, and supports for framing systems.
28. Contractor shall furnish and install all welding as applicable to this scope of work. Welders shall be certified as required by all governing authorities having jurisdictions.
29. Contractor shall furnish all power for welding equipment.
30. All fire watch for contractor's work. A properly trained and equipped tradesman will perform the fire watch. When welding, provide all fire control measures, e.g., fire blankets and ventilation as required.
31. Contractor shall furnish and install all backing plates and support members for all handrails, stair rails, equipment, toilet partitions/accessories, fixtures, cabinets, shelving, white boards, TV brackets (including welded studs), casework, and tack boards as shown on the drawings, details, and as required by the Contract Documents.

#### Insulation, Drywall, Interior Caulking, FRP

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all thermal and acoustical insulation as generally shown and/or specified to satisfy the project requirements and to meet the requirements of the building code.
2. Contractor shall furnish and install all sound insulation at all penetrations and utility boxes as required to maintain sound-rated assemblies.

3. Contractor shall furnish and install all foil-faced insulation as shown and or specified in the Contract Documents.
4. Contractor shall provide fireproofing as required including, caulking and firestopping, per the Contract Documents and project requirements.
5. Contractor shall furnish and install all acoustical treatments at mechanical and generator rooms.
6. Contractor shall furnish and install all fasteners including but not limited to, self-tapping screws, bolts, nuts, and washers for work of this Bid Package.
7. Contractor shall provide all patching/drywall work at opening penetrations required for other bid packages and equipment, e.g., ducts, fire dampers, pipes, conduits, lights, window shades, j-boxes, access doors and panels.
8. Contractor shall patch, if necessary, all fire rated enclosures, soffits and shafts for plumbing, electrical, HVAC ducting/piping and other items as required.
9. All fire/smoke-rated construction shall maintain continuous required ratings at all areas including penetrations, intersections of dissimilar construction, e.g., drywall and wood framing, concrete, steel. Include fire safing, fire barrier sealants, and drywall/taping compound as required and by code requirements.
10. Contractor to apply all identification for rated wall assemblies as required by Contract Documents.
11. All final drywall configurations will match adjacent surfaces and be true and flush with adjacent construction. This may require shimming/furring as required.
12. Contractor shall provide construction power for tools and task lighting from designated sources as per Owner's approval or via self-supplied generator.
13. Contractor shall furnish and install all interior gypsum board and finishing as required by the Contract Documents. Provide fire-rated, moisture resistant, and abuse resistant board/compounds where required by code and the Contract Documents. Include all trims, accessories, casings, corner/edge trims, reveals, and moldings. Provide moisture resistant gypsum board at all early drywall areas.
14. Contractor shall furnish and install all exterior-rated gypsum sheathing board under exterior surfaces and plaster surfaces.
15. Contractor shall verify and coordinate dimensions for alcoves, walls and opening dimensions for equipment furnished by others, e.g., toilet accessories, fire extinguisher cabinets, and Owner/Contractor equipment. Particular attention to code-mandated exiting clearance and handicap clearance dimensions is required, e.g., restrooms, drinking fountain alcoves, hallways, and stairways. All work shall fully comply with current handicap codes (even if contrary to the Contract Documents and submittal approvals). Contractor shall request specific written direction from the Construction Manager before proceeding with any work that is non-compliant.
16. Contractor shall furnish and install all cementitious backer board.
17. Where furring or framing systems are scheduled to be attached to the surface that is rough, uneven, and not true or level, Contractor shall provide shimming, building out and adjustments to the framing system as required to compensate for the uneven substrate.
18. Contractor shall furnish and install all aluminum trims/reveals/moldings.
19. Contractor shall furnish and install necessary trim, molds, reveals, shadow molds, and f-stops.
20. Finish taping behind all equipment/fixtures as is consistent with the taping requirements of the area in question, i.e., do not merely fire tape behind these areas.
21. Contractor shall provide early drywall at all framing when directed by Construction Manager as required to commence acoustical ceiling grid installation or metal duct installation. This may or may not be in sequence with drywall production work but will be performed as necessary for other adjacent installations. Taping may not be in place prior to the start of acoustical grid installation due to schedule requirements. If this is the case, provide all protection of acoustical ceiling as necessary.
22. Contractor shall furnish and install acoustical sealants as required by the Contract Documents at sound and/or rated construction.

23. Contractor shall furnish and install all sealants (elastomeric, solvent-released, and acoustical) and caulking as required, except at casework, countertops, wood base, hollow metal door frames and ceramic tile. Scope of work includes preparation, backer rod materials, and sealant for joints as shown. Contractor shall anticipate that joints of a specific width and depth may vary due to differing construction tolerances.
24. Caulking and sealants of all gypsum board to dissimilar materials, break metal attachments, hollow metal door and window frames per the Contract Documents.
25. Contractor shall furnish and install all FRP.
26. Provide 40 hours of labor to use at the Construction Manager's direction for patching damaged drywall damaged by unknown others.
27. Contractor to caulk around all boxes for sound and vapor
28. Furnish and install mineral wool at top of walls

Lath, Plaster, Sheathing, Siding and Exterior Caulking and Sealing

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all site, exterior and interior plaster systems as required by the Contract Documents. Include all lathing, flashing paper, flexible flashing, lathing accessories, e.g., weep screeds, weep holes, plaster grounds, corner/edge trims, casings, control joints, reveal moldings, and venting at soffits, as required by the Contract Documents and for a complete job.
2. Contractor shall furnish and install all vertical stress relief for lathing systems as required by the Contract Documents.
3. Contractor shall furnish and install all building sheathing and rigid insulation.
4. Contractor shall furnish and install all flexible exterior weatherproofing, weather resistive barriers, vapor retarders, self-adhered sheet waterproofing, ice and water shield, flexible flashings, and air barriers as per Contract Documents and where work required of this Bid Package is installed. Contractor shall be responsible for a complete weather tight exterior for systems provided within this scope of work.
5. Contractor shall furnish and install all plaster and lath accessories as applicable to this scope of work, as shown in the Contract Documents and required to attach to the building structure. Plaster and Lath accessories shall be installed as required to provide "true and straight" work especially where this contract work is attached to other building components, e.g., structural steel, wood structure, metal deck edge form, concrete, masonry, and pre-cast. Particular attention shall be paid to openings for windows, doors, and close tolerance conditions.
6. Contractor shall provide and install all access panels and access doors indicated on the Contract Documents to be located in plaster ceilings or walls. Access panels not shown but required to access the work of other trades shall be provided and installed by those trades. Contractor shall coordinate plaster and drywall openings for these required access doors and panels with each trade.
7. All moisture control shall be maintained at all areas including penetrations, intersections of dissimilar construction, as required by the Contract Documents.
8. Contractor shall provide and install all caulking and sealants of all plaster to dissimilar materials, break metal attachments, hollow metal door and window frames per the Contract Documents.
9. Contractor shall coordinate caulking and sealants with other bid packages. Contractor shall provide all caulking within components provided within this bid package.
10. Contractor shall protect the roofing membrane and/or waterproof deck coating systems with temporary plywood protection during the installation of the work installed under this scope of work.
11. Contractor shall provide all wash out and dumpsters required for plaster related work.

### Radiation Protection

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. All walls requiring shielding shall have lead shielding extend to a height of 7' - 0" above floor. Lead batten strips, disks and patches shall cover all joints and intrusions into walls, ceiling or floors including j-boxes or other reasons.
2. All doors and windows contained in a wall shall have a lead equivalent shielding thickness equal to or greater than prescribed for that wall.
3. For all boxes to be installed along rated walls, provide 5-sided box per detail.

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. None.

### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

### **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task

lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.

H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.

I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.

J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.

K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Provide Pricing for the installation of Miscellaneous Accessories.
- B. Provide Pricing for the installation of Wall and Corner Guards
- C. ICRA
  - a. Provide Pricing for the installation of ICRA
  - b. Provide Pricing for the ICRA maintenance
  - c. Provide Pricing for the removal of the ICRA

## **1.07 ALLOWANCES**

- A. Not at this time.

**END OF SECTION**

**BID PACKAGE 10**  
**ACOUSTICAL PANEL CEILINGS**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
07 92 10	Interior Joint Sealants
09 51 13	Acoustical Panel Ceilings
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Acoustical Panel Ceilings**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all acoustical panels, exposed grid suspension systems, wire hangers, wire attachments, fasteners, main runners, joint clips, cross tees, seismic requirements (bars, struts, and clips), and wall angle moldings as noted in the Contract Documents. Scope shall include all soffit details, deck connections, compression struts.
2. Contractor shall furnish and install hanger wire for light fixtures and HVAC registers / grilles.
3. Contractor shall comply with fire test response characteristics testing as noted in the Contract Documents.

4. Contractor shall coordinate all acoustical ceiling work with other bid packages, including but not limited, to building insulation, drywall, light fixtures, HVAC components, control systems (security, fire alarm and access), speakers, access panels, electrical systems and sprinklers.
5. Contractor shall supply device tiles prior to installation ceiling.
6. Contractor shall abide by project conditions and handle all acoustical ceiling units diligently to avoid chipping edges or damaging units in any way.
7. Contractor shall provide all required warranties, maintenance and added stock as noted in the Contract Documents.
8. All suspension systems and panels shall be in accordance with manufacturer's instructions in compliance with ASTM C 636.
9. Contractor shall replace any damaged and/or broken panels. All exposed surfaces of acoustical ceilings including trim, edge moldings and suspension members must be clean.
10. Contractor shall fully coordinate the layout of all acoustical ceiling, main runner locations, etc. with the other bid packages. Contractor shall coordinate layout and conflicts with other bid packages prior to the "framing stage" of construction.

#### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

- A. The following specific work items listed below will be provided by others:
  1. None.

#### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

#### **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an

- on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A

## **END OF SECTION**

**BID PACKAGE 11**  
**PAINT AND WALL COVERING**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
07 92 10	Interior Joint Sealants
09 91 00	Painting
09 96 13	Abrasion-Resistant Coatings
09 97 23	Concrete And Masonry Coatings
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Paint**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. All exposed conduit and backboxes to be painted to match structure. Confirm exact color with architect prior to installation.
2. Paint inside duct with bitumastic to 4' above grill.
3. Contractor shall furnish and paint all exterior concrete, exterior Portland cement (stucco), cementitious substrates, wood, aluminum, and steel (primed and galvanized metal) per the Contract Documents. All painting and material finishing required for the exterior areas of the building and site work as defined by the Contract Documents.

4. Contractor shall prime and paint all new exposed steel columns, beams and diagonal braces, joists, and metal decking as required per the specified color provided in the Contract Documents.
5. Contractor shall furnish and paint all interior concrete, steel, galvanized metal, aluminum (not anodized or otherwise coated), wood, gypsum board, access panels and plaster per the Contract Documents.
6. Contractor shall furnish and install all vinyl wall coverings per the Contract Documents.
7. Contractor shall furnish and install all adhesives, primers, sealers, wall liners, and metal primer as specified in the Contract Documents.
8. Contractor shall furnish and install all vinyl coated fabric coated tackable wall coverings per the Contract Documents.
9. Contractor shall furnish and apply all special coatings at both exterior and interior at specified locations as noted in the Contract Documents.
10. Contractor shall comply with all fire test response characteristics testing as noted in the Contract Documents.
11. Contractor shall coordinate with framing, dry wall and plaster Contractors for caulking and sealing of all joints in the interior and exterior perimeters noted in the Contract Documents.
12. Contractor shall properly clean, prep and prime all surfaces before applying finishes.
13. Contractor shall touch-up paint and finish of new areas as required due to normal damage, splatters and marring caused by the process of the construction work.
14. Contractor shall mask, protect and cover surfaces and items that do not receive paint, including but not limited to, fire-rating labels, exposed concrete/masonry, and fixtures, equipment.
15. Contractor shall remove all debris, empty paint/solvent cans and rags from the building and site area on a daily basis.
16. Contractor shall furnish, utilize, and remove self-contained paint washout facilities/containers for all work related to this scope of work.
17. Contractor shall inspect all surfaces of building components (which are installed by others) prior to start of any work. Application of Contractor's work shall constitute acceptance.
18. Contractor shall coordinate with the Construction Manager prior to proceeding with any work in each room or areas i.e., finish painting in high-traffic areas, e.g., stairwells, corridors, entry and exit areas.
19. Contractor to provide caulking as required for sealing.
20. Provide 60 hours of touch up painting to be used at the Construction Manager's direction.

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. Bid Package 3 Masonry: Provide and install all masonry sealers.

### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

## **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instructions regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A

## **END OF SECTION**

**BID PACKAGE 12**  
**FLOORING AND TILE**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
09 65 13	Resilient Base and Accessories
09 65 16	Resilient Sheet Flooring
09 65 23	Section 09 65 23 – Resilient Plank Flooring
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Flooring**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor to evaluate moisture mitigation at slab after flooring demolition. Verify flooring finishes installation and warranty
2. Contractor shall furnish and install all flooring work.
3. Contractor shall furnish and install all minor filling and floor preparation of concrete floors and floating of walls as required for plumb level and smooth surfaces prior to setting tile. Contractor has reviewed job conditions and has included all work necessary to properly prepare floors. Preparation includes, but is not limited to, crack isolation membrane, bushing high areas, floating low areas, floating transitions, and cleaning.

4. Contractor shall conform to all adhesion tests per the Contract Documents on floor substrate prior to installing work. Provide test results and immediately inform the Construction Manager of any problems.
5. Contractor shall furnish and install all sealants and caulking as required for ceramic tile work.
6. Contractor shall furnish and install all expansion joints, control joints and sealant materials for a complete and watertight installation.
7. Contractor shall furnish and install all divider strips, trimmers and accessories where tile transitions to a dissimilar surface or material.
8. Contractor shall include all cutting and adjusting tile for floor boxes, drains, lavatories, urinals, toilets, toilet accessories and expansion joints as part of this scope of work.
9. Contractor shall comply with and provide the necessary test reports to confirm compliance with required slip-resistant surface criteria for tile products as required in the Contract Documents.
10. Contractor shall furnish and install temporary protection as specified in the Contract Documents.
11. Contractor shall comply with all curing requirements in strict accordance with the Contract Documents and manufacturer's recommendations.
12. Provide all floor prep to ensure level finish and preserve a warranties.
13. Contractor shall provide and perform final cleaning of ceramic tile after completion of the work. Take special care to avoid damaging other trades' finishes.
14. Contractor shall coordinate with all toilet and bath accessories installation by Bid Package 01 Misc. Specialties. Coordinate all backing requirements with Bid Package 09 Framing, Drywall, and Plaster.
15. Contractor shall furnish and install all grout and/or penetrating floor sealer as shown and/or specified in the Contract Documents. Furnish and install specified paper cover curing grout curing process.
16. Furnish and install specified grout sealer per manufacturer's instructions and recommendation after grout has properly cured.
17. Contractor shall field measure all areas prior to fabrication.
18. Contractor shall coordinate with other trades the tile interfaces with fixtures, floors, walls, ceilings, partitions, countertops, drains, and adjacent finishes. In the event of inconsistencies between the Contract Documents or shop drawings, provide written notification to the Construction Manager.
19. A significant portion of other floor finishes may be installed prior to the work of this scope of work. Contractor shall provide all labor, material and equipment necessary to avoid damage to other finish work. This specifically includes, but is not limited to, the following:
20. Providing plywood protection and ramps for material carts when transporting materials.
21. No materials shall be stocked in finished areas.
22. No cutting or polishing of tile shall be allowed near finished areas.
23. Thoroughly clean all tile work after sealer has dried.
24. Furnish and install floor protection, immediately after cleaning of tile work.

#### D. Carpet and Resilient Flooring

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor shall furnish and install all carpet tile, sheet carpet, linoleum flooring, resilient sheet flooring, resilient flooring, resilient base and accessories and walk off mats, including flooring in elevator. Include all other specified flooring and base materials, as required by the Contract Documents.
2. Contractor shall perform all floor filling, leveling and underlayment of subfloor substrate, as specified and required by "job conditions". New concrete floor surfaces will be provided to

this Contractor within the specified tolerance. Surface preparation consisting of the following items is included in this scope of work: Filling/leveling at "cold joints," "control joints," "block-outs," and at perimeter conditions. Contractor includes surface cleaning and preparation of substrate as required.

3. Contractor shall be responsible for receipt and storage of all flooring materials and delivery to the project site.
4. Contractor shall furnish and install all trim, accessories, and termination and transition strips at flooring, as required by the Contract Documents and actual job conditions to produce a complete, finished installation.
5. Contractor shall furnish and install all finish flooring in all areas noted on the Contract Documents. Flooring materials and colors shall comply with the Contract Documents and as selected by the Architect.
6. Contractor shall provide all required maintenance stock, as required by the Contract Documents. Properly label, package, deliver and store individual materials at direction of Construction Manager.
7. Contractor shall vacuum and clean all installed surfaces after completion of work to remove excess glue and materials.
8. Contractor shall provide special care to avoid damage to other finishes. Contractor will be held responsible for repairs and cleaning resulting from damage by careless operations.
9. Contractor shall inspect and accept all sub-floor substrate conditions before applying any flooring materials. This includes moisture testing, checking "levelness," and proper alkalinity and adhesion testing. Prior to the start of work, Contractor shall issue correspondence containing results of the moisture tests, alkalinity and adhesion tests, and stating acceptance of substrate conditions.
10. Prior to ordering materials, Contractor shall verify dimensions in the field, and ensure that all specified materials and accessories are fully compatible both in function and in physical dimensions.
11. Contractor shall ensure that base materials are installed continuously on vertical surfaces in all areas where flooring work occurs. Base material shall be installed around cabinets, foot wells, alcoves and other permanently attached building fixtures and components.
12. Contractor shall protect all areas, as specified in the Contract Documents, immediately following completion of flooring work and preliminary inspection of work by the Construction Manager. All protection shall be continuously secured at both perimeter and field seams.
13. Contractor shall install/apply all concrete sealers as shown on contract documents.

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

- A. The following specific work items listed below will be provided by others:
  1. None.

### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.

- F. Coordinate the use of premises under the direction of the Construction Manager.

## **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A

## **END OF SECTION**

## **BID PACKAGE 13** **FIRE SPRINKLER**

### **1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

### **1.02 WORK COVERED BY CONTRACT DOCUMENTS**

#### **A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

#### **B. Fire Sprinkler**

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Verify existing sprinklers system with sprinkler contractor prior to demolition. Sprinkler contractor to modify and maintain system code requirements throughout the project.
2. Provide complete design for deferred approval
3. The Contractor shall furnish and install a complete building fire sprinkler system. Provide all necessary equipment but not limited to, fire sprinkler risers, exterior fire department connections, fire system control valves, supervisory tamper/flow switches, electric alarm bell/gong, piping, flex couplings, pendant heads (exposed and recessed), and spare materials/devices, as required.
4. Contractor shall furnish all layout work required to install work in this subcontract.
5. Contractor shall provide progressive clean up, final clean up and hauling off-site, all debris associated with Contractor's work.
6. Contractor shall furnish and install miscellaneous valve boxes and frames, as required for work.

7. Contractor shall furnish and install all firestopping caulking and packing materials required to encase piping at points of penetration through fire-rated and smoke-rated construction. Include all hangers, supports, angles, sleeves, access doors required for a complete installation.
8. Contractor shall furnish and install all fire protection systems in the exterior areas as indicated in the Contract Documents.
9. Contractor shall install all heads and escutcheons in the center of all architectural ceiling tiles and elements. Contractor shall coordinate with Bid Package 09 Framing, Drywall and Plaster.
10. Contractor shall comply with all National, State, Local codes and the Authority having Jurisdiction, standards, policies, and requirements.
11. Contractor shall perform all testing (hydrostatic and flow) and flushing of new systems as required complying with approving agency requirements and the Contract Documents.
12. Contractor shall furnish and install all tamper/flow switches and additional monitoring devices as required for a complete system. The line voltage connection to the fire alarm panel is provided by Bid Package 6 Electrical.
13. Contractor shall install fire sprinkler drain systems as required by code, governing authorities, and the Contract Documents. All drain outlets shall be located by Contractor at the exterior of the building or tie into sewer/storm drain systems as required. Specific approval of drain locations must be obtained in writing from the Architect prior to installation.
14. Contractor shall furnish and install all finish heads per Contract Documents.
15. Contractor shall provide and install all required seismic restraints.
16. Contractor shall furnish and install all counter flashing, caulking or fire caulking for all wall penetrations associated with this work.
17. Contractor shall fill all penetrations with approved waterproofing material or link seal as required.
18. Contractor shall provide detailed coordination drawings showing all main and branch piping and sprinkler heads in compliance with Building Information Model requirements in contractor's scope below.
19. Contractor shall properly coordinate the locations and dimensional requirements (including specific dimensions shown on the plans) of all work items with all other work items so that conflicts, incorrect locations, inadequate space/clearance, and similar types of circumstances are avoided. Contractor shall verify that all work items will fit within the designed wall cavities, ceiling spaces, and furred areas before any affected building elements are constructed, e.g., foundations, slab on grade, and elevated decks.
20. Contractor shall perform all coring and/or sleeving (as required by actual project requirements) for this scope of work. If required, include proper types of steel sleeves at penetrations. Any coring that is necessary through the existing structure shall be reviewed and approved by the Owner prior to performing coring and/or sleeving.
21. Contractor shall maintain the designed fire/smoke/sound ratings at all penetrations/pockets/recesses in the building construction. All sleeves and penetrations shall be sealed by Contractor with materials that are either specified or approved by the Architect.
22. Contractor shall furnish and install all necessary angles, clamps, hangers, channels, unistrut, supports, wires, cables, threaded rod, miscellaneous steel, isolation devices, seismic anchorage, slack wires, and backing for all fire sprinkler work, equipment, piping and miscellaneous items. All work shall comply with applicable codes and Contract Document requirements. In areas congested by trades with priority space requirements (e.g., ductwork, conduit, and waste lines) as determined by the coordination drawings, Contractor shall provide secondary supports below the upper systems as required to support the fire sprinkler system. Secondary supports shall be connected by Contractor to the building structure.
23. Contractor to provide lead flashing at all roof penetrations included in this bid package compatible with specified roof system.

24. Contractor shall furnish and install steel stiffener angles and /or metal deck reinforcement on the metal decking at locations where piping penetrates the floors. Contractor shall reference the Contract Documents and/or structural plans for requirements.
25. Contractor shall furnish and install proper support, per Contract Documents, under roof mounted piping.
26. Contractor shall include all fire sprinkler and similar related work items as may be referenced throughout the Contract Documents by typical notations, such as "by Fire Sprinkler Contractor," "by Contractor," "by General Contractor," or "FS".
27. All of Contractor's work shall fully comply with current handicap codes (even if contrary to the Contract Documents and submittal approvals by the Engineer). Contractor shall request specific written direction from Contractor before proceeding with any work that is noncompliant.
28. In areas where new fire sprinkler systems are installed, Contractor's cutting work shall be kept to an absolute minimum. Where possible, neat holes shall be cut in the finished surfaces and access panels shall be furnished and installed by Contractor. The methods of installation and locations of access to such concealed areas shall be approved by both the Architect and the Contractor prior to start of work. Contractor shall be responsible for the costs of patching and repair of areas only in cases where excessive removal and/or improper layout are performed by Contractor. As applicable, Contractor shall remove and replace various existing building components, e.g., acoustic ceiling panels, as required to facilitate installation of work. Damage as a result of mishandling, to such items that are to be salvaged, will be paid for by Contractor.
29. Contractor shall perform all specified labeling, stenciling, tagging, and identification of all equipment, piping, and devices, which are included in this scope of work.
30. Contractor shall provide all access doors that are required for the fire sprinkler system. The proper type and finish of architectural access doors shall be provided by Contractor. The type and finish may or may not be specifically listed in the fire sprinkler and/or architectural specification sections. Contractor shall coordinate all openings with the respective other bid packages, e.g., framing or acoustic ceiling. Bid Package 08 Framing, Drywall, Plaster and Ceiling Tile shall provide the openings in the metal framing systems and install the access panels.
31. Coordinate with other Contractor of the installation of devices, controls and sensor
32. Contractor shall notify all appropriate parties a minimum of 48 hours prior, as required by the Contract Documents, when deactivating fire protection systems.

## PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

### 1. INTRODUCTION

- 1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

### 2. MODELING REQUIREMENTS

- 2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.
- 2.2 The following trades are required to produce a 3-D model:
  - Structural Steel
  - Plumbing

- Fire Sprinkler
- Electrical
- HVAC

2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.

2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.

2.5 BIM Level of development (LOD) requirement.

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.

2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

### 3. TECHNOLOGY PLATFORM AND SOFTWARE

3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.

3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct .NWC/.NWD export options are preferred.

3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

### 4. QUALIFICATIONS OF BIM PERSONNEL

4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

### 5. PARTICIPATION REQUIREMENTS

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation

and/or changes in contract document design. Prime Contractors shall conduct proactive model review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.

5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

## **6. BIM WORK PLAN**

6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

- a. Project sequence and schedule for initial delivery of each model
- b. Schedule for updating of each model and preservation of versions of each model
- c. File formats used for project submittal and file exchange
- d. Compliance with Folder Structure, File Naming, Object naming conventions
- e. Utilization of Web Site and FTP Sites
- f. Trade-specific LOD requirements
- g. Model origin (common 0,0,0 location)
- h. Coordination report format
- i. Model sign-off procedure
- j. Field validation
- k. As-built model creation
- l. Final BIM deliverable

## **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. Bid Package 5 Plumbing and Site Utilities: Contractor to provide fire riser to 6" above finish floor.

## **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.

- F. Coordinate the use of premises under the direction of the Construction Manager.

## **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A

## **END OF SECTION**

**BID PACKAGE 14**  
**PLUMBING**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

A. **Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<u>Specification Section</u>	<u>Description</u>
<b>07 41 13</b>	<b>Metal Roof Panels</b>
<b>07 84 00</b>	<b>Firestopping</b>
<b>22 05 00</b>	<b>Common Work Results for Plumbing</b>
<b>22 05 19</b>	<b>Meters And Gages for Plumbing Piping</b>
<b>22 05 23</b>	<b>General-Duty Valves for Plumbing Piping</b>
<b>22 05 29</b>	<b>Hangers And Supports for Plumbing Piping and Equipment</b>
<b>22 05 53</b>	<b>Identification For Plumbing Piping and Equipment</b>
<b>22 07 00</b>	<b>Plumbing Insulation</b>
<b>22 08 00</b>	<b>Commissioning Of Plumbing</b>
<b>22 11 16</b>	<b>Domestic Water Piping</b>
<b>22 11 19</b>	<b>Domestic Water Piping Specialties</b>
<b>22 13 16</b>	<b>Sanitary Waste and Vent Piping</b>
<b>22 13 19</b>	<b>Sanitary Waste Piping Specialties</b>
<b>22 40 00</b>	<b>Plumbing Fixtures</b>
<b>22 63 13</b>	<b>Gas Piping for Laboratory and Healthcare Facilities</b>
<b>23 05 00</b>	<b>Common Work Results For HVAC</b>
<b>23 05 13</b>	<b>Common Motor Requirements for HVAC Equipment</b>
<b>23 05 23</b>	<b>General-Duty Valves for HVAC Piping</b>
<b>23 05 29</b>	<b>Hangers and Supports for HVAC Piping And Equipment</b>
<b>23 05 53</b>	<b>Identification For HVAC Piping and Equipment</b>
<b>23 05 93</b>	<b>Testing, Adjusting, And Balancing For HVAC</b>
<b>23 21 13</b>	<b>Hydronic Piping</b>
<b>23 22 13</b>	<b>Steam And Condensate Heating Piping</b>
<b>23 23 00</b>	<b>Refrigerant Piping</b>
<b>TIO</b>	<b>Testing, Inspection, and Observation Program</b>
<b>Division 1</b>	<b>General Requirements*</b>

\* As applicable to work within this Bid Package.

#### B. Site Utilities

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor to provide, install, connect all domestic water, fire water, sanitary sewer, vent and storm drain systems, fire hydrants, post indicator valves, backflow preventers, supports, test cocks required for testing, water meters and water boxes, manhole assemblies, catch basis, inlets, vaults, vortex separation units, cleanouts, traffic rated vaults, cleanouts, perforated pipe, trench drains, sub-drains, “burrito wrap” systems, piping insulation and identification as required in Contract Documents. Include any necessary temporary valves for utility relocations.
2. Contractor shall furnish and install all roof drain/overflow drain piping and foundry type curb openings.
3. Contractor shall furnish and install all valve boxes, frames, and grates, manhole covers and frames.
4. Contractor shall install drain bodies as shown on existing storm drain risers.

5. Contractor shall coordinate with Bid Package for Fire Sprinkler System for acceptance and verification that underground system has been properly flushed and is acceptable for the fire system.
6. Contractor shall supply coring and saw cutting and removal as required for installation of work within this scope of work where openings are not specifically shown to be performed by others. Obtain approvals where required. Restore adjacent surfaces to their original condition, including all patchwork as required.
7. Contractor shall furnish and install all waste line and storm drain clean-outs as specified and as required by code to provide proper access to all points of the system. Clean-outs shall be located in a manner that does not interfere with any building components and at inconspicuous locations. Exterior clean-outs shall not be installed in paved areas without consent of Architect. Exterior clean-outs shall be installed in landscape areas whenever possible.
8. Contractor shall furnish and install all final connections of work to existing services, new equipment, work supplied under this scope of work, equipment, and components supplied by others as defined by the Contract Documents.
9. Contractor shall perform flushing and sterilizing of the domestic water piping systems. Disconnect/reconnect water mains at meters as required to charge system with chemicals. Contractor shall provide chlorinating certificates at completion of all testing. Contractor shall properly flush all exterior faucets (without strainers installed), fixture supply valves, toilet flush valves, etc. Contractor shall provide bacteria testing results upon completion of work.
10. Contractor shall perform all hot tapping of service connections, as required to satisfy the provisions of the Contract Documents and local building codes and ordinances.
11. Contractor shall be responsible for all site utility related digging, shoring and backfill for the installation of this scope of work. All digging and shoring shall comply with the necessary specification, OSHA regulations and code requirements. All backfill shall be in accordance with the Contract Documents.
12. Contractor shall perform "snaking" of all sewer and storm drains and flow testing at conclusion of project.
13. Contractor shall furnish and install any sealants as required for complete installation.
14. Contractor shall protect all uninstalled pipe materials that are stored on-site from damage or contamination.
15. Contractor shall furnish and install concrete plugging of all piping systems that are abandoned in-place, as shown.
16. Contractor shall repair or replace any crushed or broken lines/connections which occur to any type of piping installed by Contractor during construction or upon discovery in the final video (unless another party has been determined to be at fault). This responsibility extends to the removal and proper placement of any existing conditions required to be disturbed to make appropriate repairs.
17. Contractor shall furnish and install all necessary unistrut, angles, channels, brackets, backing, threaded rod, and miscellaneous steel fasteners as required to install all fixtures and piping work included in this scope of work, including seismic supports and sway bracing. All work shall comply with applicable codes and Contract Documents. In areas congested by trades with priority space requirements (e.g., ductwork and waste lines) as determined by the coordination drawings, Contractor shall provide secondary supports below the upper systems as required to support Contractor's work. Contractor shall connect secondary supports to the building structure.
18. Contractor shall properly secure all sleeves, work, and fixtures that are cast into concrete work so that movement does not occur during placement. Contractor shall verify proper location and placement before concrete placement

## Plumbing

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor will provide all necessary Safe Off.
2. Contractor shall furnish and install all plumbing work within the building and site interface to the designated point of connections outside and inside the facility including but not limited to domestic water (hot and cold), storm drain lines, sewer lines, waste and vent lines, foundation drainage systems, "burrito wrap" systems, natural gas and storm drain systems, water heaters (electric), drains (area, trench, floor, standpipe, overflow and roof), drinking fountains, eyewash stations, water hammer arrestors, hose bibs, condensate drain systems, plumbing fixtures, gas turrets, and equipment (lavatories, water closets, urinals, sinks, floor sinks, mop sinks, traps, primers, catch basins, supply boxes, valves (mixing and standard) and regulators, thermal expansion tanks, circulating pumps, backflow preventers, and piping insulation as required by the Contract Documents for complete and functioning systems.
3. Contractor is responsible for all plumbing related trenching and backfill. Excess spoil material is to be removed from the site and properly disposed of. Spoils are not allowed to be stockpiled on site and must be removed from the site on a consistent basis.
4. Contractor shall coordinate all work in ceiling and wall cavities with all other bid packages to ensure all required ceiling heights and clearances can be maintained.
5. Contractor shall seal and /or caulk all penetrations through walls, slabs and ceilings, as required to maintain fire rating, weather infiltration, and water tightness.
6. Contractor shall furnish and install all natural gas piping (underground and aboveground). Contractor shall include earthquake valves, as shown and/or specified in the Contract Documents and as required by local building codes/agencies.
7. Contractor shall furnish and install all sewer and domestic water systems. Contractor to provide drywells and final connections as shown on Contract Documents.
8. Contractor shall furnish and install all roof drain/overflow drain piping and foundry type curb openings from the building line to the face of the curbs. Contractor shall include all saw cutting, demolition and removal of existing curb as required.
9. Contractor shall furnish and install vibration isolators and steel support systems for plumbing equipment.
10. Contractor shall furnish and install all valve boxes, frames, and grates.
11. Contractor shall furnish and install all condensate drainage systems.
12. Contractor shall furnish and install protective insulation and covering over all exposed fixture piping and valves as specified and handicap codes, including stainless steel metal pipe covers over sink drain piping.
13. Contractor shall protect all uninstalled pipe materials that are stored on-site from damage or contamination.
14. Contractor shall furnish and install drain pans, drain traps, and all other associated piping at the water heaters.
15. Contractor shall furnish and install all waste line clean-outs as required by code and by the Contract Documents and as required to provide proper access to all points of the system. Clean-outs shall be located in a manner that does not interfere with any building components and at inconspicuous locations. Unless otherwise specifically approved by the Architect, floor clean-outs shall not be located in marble, tile or wood floors nor shall wall clean-outs be located in aesthetically significant walls. Provide cleanout above all urinals.
16. Contractor shall furnish and install water heater flue systems, from the connection at the water heater through the termination point above the roof. All vents shall be sized in accordance with the plans and shall meet the minimum size-requirements by the water heater manufacturer.
17. Contractor shall perform cleaning out and flow testing of all piping systems prior to project completion.

18. Contractor shall furnish and install final connection of work to existing services, new equipment, work supplied under this scope of work, equipment, and components supplied by other bid packages.
19. Contractor shall perform flushing and sterilizing domestic water piping systems required by the work of this scope of work. Disconnect/reconnect water mains at meters as required to charge system with chemicals. Contractor shall provide chlorinating certificates at completion of all testing. Contractor shall properly flush all faucets (without strainers installed) fixture supply valves, and toilet flush valves. Contractor shall provide bacteria testing results upon completion of work. Testing is to be witnessed and test sheets turned over to the Contractor as soon as available and also as part of closeout documents.
20. Contractor shall furnish and install protection to installed sewer, roof and storm drain systems and water systems from damage or contamination until completion.
21. Contractor shall polish all floor drain covers at conclusion of project.
22. Contractor shall participate in trade coordination meetings and prepare shop drawings coordinating installations with products and materials provided by other entities. These coordination drawings shall include areas where limited space availability necessitates maximum utilization of space for efficient installation of different components and identification of any areas of potential conflict.
23. Contractor shall properly coordinate the locations and dimensional requirements (including all specific dimensions shown on the plans) with all bid packages so that conflicts, incorrect locations, inadequate space/clearance, and similar types of circumstances are avoided. Contractor shall also verify that all work items will fit within the designed wall cavities, ceiling spaces and furred areas before any affected building elements are constructed, e.g., foundations, slab on grade, and elevated decks.
24. Contractor shall perform all coring, block-outs and sleeving, as required by actual plumbing project requirements. If required, include proper types of steel sleeves at penetrations.
25. Contractor shall maintain the designed fire/smoke/sound ratings at all plumbing penetrations/pockets/recesses in the building construction. All sleeves and penetrations e.g., piping, fixtures, and equipment shall be firestopped by this Contractor with materials that are either specified or approved by the Architect.
26. Contractor shall furnish and install all necessary unistrut, angles, channels, brackets, backing, threaded rod, and miscellaneous steel fasteners as required to install all fixtures and piping work, including seismic supports and sway bracing. In areas congested by trades with priority space requirements (e.g., ductwork and waste lines) as determined by the coordination drawings, Contractor shall provide secondary supports below the upper systems as required to support Contractor's work. Contractor shall connect secondary supports to the building structure.
27. Contractor shall furnish and install steel stiffener angles and deck reinforcing on the metal decking at locations where piping penetrates the floor and roof decks. Reference the Contract Documents for requirements.
28. Contractor shall furnish and install proper supports under piping and similar items that run horizontally on the roof membrane.
29. Contractor shall furnish and install non-lead roof jacks for all piping penetrations on the roof. Each piping penetration shall be a minimum of 18" from raised platforms, curbs, and adjacent penetrations. Roof penetrations shall not interfere with the operation or servicing of equipment (i.e., piping shall not be located in front of equipment access doors). Bid Package 06 Roofing and Sheet Metal shall approve all roof jacks prior to installation.
30. The locations, configuration, sizes, and height of roof penetrations shall be fully compatible with the type of roof system and manufacturer's warranty. The design, proper sequence, and installation of jacks, flashings, and drains shall be coordinated with the installation of the roofing system.

31. Contractor shall verify the exact location and finished height of each floor and deck drain in the interior rooms and exterior areas of the building before installation. Each drain shall be verified by Contractor as fully compatible and appropriate with the water proofing systems and thickness of the composite floor materials. The location of the drains shall be placed by Contractor properly, symmetrically and as required to avoid conflict with all other building components, e.g., toilet partitions.
32. Contractor shall furnish and install all access doors required for plumbing work. The proper type and finish of architectural access doors shall be provided. The type and finish may or may not be specifically listed in the plumbing and/or architectural specification sections. Contractor shall coordinate all openings with the respective Contractors, e.g., framing and acoustic ceiling. Bid Package 09 Framing, Drywall and Plaster provide the openings in the metal framing systems.
33. Contractor to participate Project Building Information Modeling per the below guidelines and requirements.
34. Lower Level Plumbing demo to be provided by Plumbing Contractor

## PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

### 1. INTRODUCTION

- 1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

### 2. MODELING REQUIREMENTS

- 2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.
- 2.2 The following trades are required to produce a 3-D model:
  - Structural Steel
  - Plumbing
  - Fire Sprinkler
  - Electrical
  - HVAC
- 2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.
- 2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.
- 2.5 BIM Level of development (LOD) requirement.
 

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that

would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

- 2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.
- 2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

### 3. TECHNOLOGY PLATFORM AND SOFTWARE

- 3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.
- 3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct .NWC/.NWD export options are preferred.
- 3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

### 4. QUALIFICATIONS OF BIM PERSONNEL

- 4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.
- 4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

### 5. PARTICIPATION REQUIREMENTS

- 5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.
- 5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation and/or changes in contract document design. Prime Contractors shall conduct proactive model review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.
- 5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.
- 5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

### 6. BIM WORK PLAN

- 6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

- a. Project sequence and schedule for initial delivery of each model
- b. Schedule for updating of each model and preservation of versions of each model
- c. File formats used for project submittal and file exchange
- d. Compliance with Folder Structure, File Naming, Object naming conventions
- e. Utilization of Web Site and FTP Sites
- f. Trade-specific LOD requirements
- g. Model origin (common 0,0,0 location)
- h. Coordination report format
- i. Model sign-off procedure
- j. Field validation
- k. As-built model creation
- l. Final BIM deliverable

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

- A. The following specific work items listed below will be provided by others:
  - 1. None.

### **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

### **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an

- on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A

## **END OF SECTION**

**BID PACKAGE 15**  
**HVAC**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

A. **Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<u>Specification Section</u>	<u>Description</u>
07 84 00	Firestopping
22 05 00	Common Work Results for Plumbing
22 05 19	Meters And Gages for Plumbing Piping
22 05 23	General-Duty Valves for Plumbing Piping
22 05 29	Hangers And Supports for Plumbing Piping and Equipment
22 05 53	Identification For Plumbing Piping and Equipment
22 07 00	Plumbing Insulation
22 08 00	Commissioning Of Plumbing
22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 13 16	Sanitary Waste and Vent Piping
22 13 19	Sanitary Waste Piping Specialties
22 40 00	Plumbing Fixtures
22 63 13	Gas Piping for Laboratory and Healthcare Facilities
23 05 00	Common Work Results For HVAC
23 05 13	Common Motor Requirements for HVAC Equipment
23 05 23	General-Duty Valves for HVAC Piping
23 05 29	Hangers and Supports for HVAC Piping And Equipment
23 05 53	Identification For HVAC Piping and Equipment
23 05 93	Testing, Adjusting, And Balancing For HVAC
23 07 00	HVAC Insulation
23 08 00	Commissioning Of HVAC
23 09 00	Instrumentation And Control For HVAC
23 09 93	Sequence Of Operations for HVAC Controls
23 21 13	Hydronic Piping
23 22 13	Steam And Condensate Heating Piping
23 23 00	Refrigerant Piping
23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 34 00	HVAC Fans
23 36 16	Variable-Air-Volume Units
23 37 13	Diffusers, Registers, And Grilles
23 41 00	Particulate Air Filtration
23 81 29	Variable Refrigerant Flow HVAC Systems
23 84 13	Humidifiers
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 22 00	Low-Voltage Transformers
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches and Circuit Breakers
26 43 13	Surge Protective Devices for Low-Voltage Electrical Power Circuits
26 51 00	Interior Lighting
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

## B. HVAC

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor will provide all necessary Safe Off.
2. Install and maintain temporary bypasses.
3. Rebalance after demo to ensure air balance is the same as the pretest values.
4. Rebalance if construction work impacts the air balance to adjoining areas.
5. Demolish existing therapy space and associated mechanical infrastructure back to the supply exhaust and return mains.
6. Install new mechanical infrastructure to support two new cardiac cath labs, associated post/pre-op bays and support spaces.
7. Install new mechanical infrastructure to support expansion of the existing hyperbaric chamber.
8. Contractor shall furnish and install all HVAC system components as required by the Contract Documents, including but not limited to: air handling equipment, exhaust systems, piping systems, ductwork systems, split systems, building automation and control systems. Reference Divisions 22, 23, 26 and 27 and the Contract Documents for specific criteria included in the project's HVAC systems.
9. Contractor shall furnish and install all flues, vent pipes, and caps for HVAC equipment within the areas as indicated in the Construction Documents.
10. Contractor shall furnish and install all condensate pumps and secondary drain pans where shown and / or specified.
11. Contractor shall furnish and install all fire and smoke dampers as shown on the Contract Documents and as required.
12. Contractor shall furnish and install all ductwork specified to laboratory fume hood and make all necessary final connections.
13. Contractor shall furnish and install angles, clamps, hangers, channels, Unistrut, supports, wires, cables, threaded rod, miscellaneous steel, isolation devices, seismic anchorage, slack wires, backing, and blocking for all HVAC work, equipment and miscellaneous items per the Contract Documents. All work shall comply with applicable Codes and Contract Document requirements. Contractor shall furnish design for approval for all anchorage per the Contract Documents.
14. Contractor shall furnish and install all louvers and roof hoods directly related to the HVAC system that are shown on the Contract Documents and/or directly connected to ductwork. Include steel angles, bird screens, and associated flashing/caulking. Inform Construction Manager of any louver and/or hood sizes that are not in conformance with free open area requirements. Coordinate all openings with other bid packages.
15. Contractor shall furnish and install all pitch pans, roof jacks, sheet metal enclosures, sheet metal caps, duct collars, flashings/counter flashings and caulking as required for roof or exterior wall penetrations of equipment, ductwork, piping, and supports. All pitch pockets/penetrations shall have a minimum of 18" horizontal separation between adjacent penetrations, unless specifically described otherwise by the Contract Documents. Install roof penetrations, piping, and equipment in accessible locations to allow adequate service clearance for normal maintenance without requiring removal of architectural, plumbing, and electrical, or structural elements. Contractor shall paint inside of ductwork black where exposed through registers.
16. Contractor shall furnish and install all miscellaneous sheet metal work associated with and required for the mechanical work.
17. Contractor shall design, furnish and install all anchorage for equipment over 400 lbs.
18. Contractor shall furnish and install all fire, smoke, and backdraft dampers as shown on the Contract Documents and as required to maintain rated construction. Include all fire-rated caulking and packing materials required to encase ducts and damper assemblies at points of penetration through fire-rated and smoke-rated construction. Include all steel angles, sleeves, access doors, and accessories required for a complete installation.

19. Contractor shall furnish and install all ductwork insulation, duct silencers, and acoustical duct lining as specified in the Contract Documents.
20. Contractor shall furnish and install, unless otherwise specifically identified in the contract documents, volume dampers on supply, return, and exhaust duct branches (whether shown on plans or not) for proper balancing of the air distribution. Opposed blade damper at diffusers and registers shall not be used for balancing.
21. Contractor shall perform all independent air/water balance testing, adjustments and reports in accordance with the Contract Documents.
22. Contractor shall furnish and install all vibration isolators, steel support rails and frames for HVAC equipment as required by the Contract Documents.
23. Contractor shall furnish and install all "Construction" filters on all air handling equipment during the construction period and initial start-up procedures. Final filters shall be installed at a time as directed by the Construction Manager and just prior to Owner occupancy. Contractor shall be responsible for protecting open ductwork from dust and debris during construction and perform all duct cleaning of new and existing as per the Contract Documents.
24. Contractor shall furnish and install all prefabricated roof curbs for all rooftop ductwork penetrations, HVAC units, exhaust fans and equipment. Include wood nailers, insulation board, sheet metal flashings and other items so that the roofing system can properly terminate at the top of the curb and provide a watertight condition.
25. Contractor shall furnish and install all supports under roof mounted piping. Contractor shall furnish and install all required wall piping supports as required and specified in the Contract Documents.
26. Contractor shall furnish and install all conduit rough in, wiring, step down transformers, and final terminations for all HVAC energy management/temperature control systems, including but not limited to interface exhaust systems, thermostats, time clocks, motion detectors, fire alarm, or other types of control systems as shown in the Contract Documents.
27. Contractor shall provide all caulking and sealing of all sleeves and penetrations for ductwork, piping, conduits, and equipment to that of dissimilar materials as required for weatherproofing, appearance and fire or sound rating, that are either specified by the Contract Documents or approved by the Architect.
28. Contractor to provide lead flashing at all roof penetrations included in this bid package compatible with the specified roof system.
29. Contractor shall provide and install all access doors that are required for HVAC equipment, components and systems. Proper type and finish of architectural access doors shall be in accordance with the Contract Documents. Contractor shall coordinate all opening sizes with other bid packages.
30. Contractor shall properly coordinate the locations and dimensional requirements (including all specific dimensions shown on the plans) of all work items with all other bid packages work items so that conflicts, incorrect locations, inadequate space/clearance, and similar types of circumstances are avoided. Examples of such work items include ductwork, piping, equipment items, disconnect switches, control modules, and dampers. Contractor shall also verify that all work items will fit within the designed wall cavities, ceiling spaces and furred areas before any affected building elements are constructed, e.g., foundations, slab on grade, and elevated decks.
31. Contractor shall coordinate exact location of all ceiling diffusers, registers, and grilles with lighting layout, ceiling tile pattern and type, and ceiling construction with Architectural reflected ceiling plans. In addition, Contractor shall coordinate location of ceiling and wall access panel for items requiring access such as fire dampers, combination smoke/fire dampers, volume dampers, and other devices requiring access.
32. Contractor shall fully coordinate with Bid Package 06 Electrical with regards to the line voltage conduit rough in and final termination locations for all HVAC systems. Contractor has reviewed all the Contract Documents and acknowledges that each bid package, responsibility to furnish and install each of the specified/shown components, conduit systems, equipment items and low/line voltage wiring are clearly defined between the Divisions 22, 23, 26, 27, and 28 so that all items required by the Contract Documents are installed. In addition to the above

requirements, Contractor shall furnish/install the low voltage conduit and wire system for the temperature control systems and any line voltage controls that are not shown or specified in Division 26 (e.g. ductless split systems).

33. Contractor shall fully coordinate with Bid Package 14 Fire Sprinklers and Bid Package 06 Electrical with regards to the smoke/fire dampers duct/mechanical equipment, and smoke detection systems. Contractor has reviewed all the Contract Documents and acknowledges that each bid package is responsible to furnish and install each of the specified/shown components, conduit systems, equipment items, and low/line voltage wiring are clearly defined between the Division Divisions 21, 22, 23 and 26 so that all items required by the Contract Documents are installed. In addition to the above requirements, Contractor agrees to install fire/smoke duct detectors.
34. Contractor shall understand that all major equipment items shall be delivered to the site in appropriate-sized sections as required to allow for adequate lifting equipment, hoisting, and rigging to install the equipment in each mechanical room/roof through the physical space and openings allowed by the completed building structure. Contractor shall place all equipment within these areas at scheduled times as designated by the Construction Manager to avoid delays to the surrounding work.
35. Contractor shall participate in trade coordination meetings and prepare shop drawings coordinating installations with products and materials provided by other entities. These coordination drawings shall include areas where limited space availability necessitates maximum utilization of space for efficient installation of different components and identification of any areas of potential conflict. See BIM Guidelines under 1.06 below.
36. Contractor shall protect the roofing membrane and/or waterproof deck coating systems with temporary plywood protection during the installation of the HVAC work in such areas.
37. The locations, configuration, sizes and height of roof penetrations shall be fully compatible with the type of roof system and manufacturer's warranty. Bid Package 08 – Roofing and Sheet Metal shall approve all such items prior to installation. The design, proper sequence and installation of jacks/flashings shall be coordinated with the installation of the roofing system. The height of all penetrations shall be in accordance with the Contract Documents. Contractor must verify the total combined thickness of the roof system and underlying substrate (insulating concrete fill system and rigid insulation, as applicable) plus the minimum curb height above the top of the roof membrane.
38. Contractor shall include all HVAC and similar related work items as may be referenced throughout the Contract Documents by typical notations, such as, "by Mechanical Contractor" "Contractor," "by General Contractor," "MC", "M", and similar, that may be noted throughout the entire set of Contract Documents.
39. If applicable, all components, equipment and work including installation shall fully comply with all current Codes (even if contrary to the Contract Documents and submittal approvals by the Mechanical Engineer). Contractor shall request specific written direction from the Construction Manager before proceeding with any work or ordering any materials that are non-compliant.
40. Contractor shall perform all specified labeling, stenciling, tagging and identification of all equipment, piping/ductwork systems, and devices which are included in this scope of work.
41. All equipment will be used during construction for acclimation of building. Contractor to provide necessary protections of equipment to use HVAC under construction conditions. Warranty for equipment to start at Substantial Completion.
42. Contractor to clean equipment coils prior to turnover to Owner.

## PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

### 1. INTRODUCTION

- 1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM

will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

## 2. MODELING REQUIREMENTS

- 2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.
- 2.2 The following trades are required to produce a 3-D model:
  - Structural Steel
  - Plumbing
  - Fire Sprinkler
  - Electrical
  - HVAC
- 2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.
- 2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.
- 2.5 BIM Level of development (LOD) requirement.  
LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.
- 2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.
- 2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

## 3. TECHNOLOGY PLATFORM AND SOFTWARE

- 3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.
- 3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct NWC/NWD export options are preferred.
- 3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

## 4. QUALIFICATIONS OF BIM PERSONNEL

- 4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software

required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

## 5. PARTICIPATION REQUIREMENTS

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation and/or changes in contract document design. Prime Contractors shall conduct proactive model review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.

5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

## 6. BIM WORK PLAN

6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:

- a. Project sequence and schedule for initial delivery of each model
- b. Schedule for updating of each model and preservation of versions of each model
- c. File formats used for project submittal and file exchange
- d. Compliance with Folder Structure, File Naming, Object naming conventions
- e. Utilization of Web Site and FTP Sites
- f. Trade-specific LOD requirements
- g. Model origin (common 0,0,0 location)
- h. Coordination report format
- i. Model sign-off procedure
- j. Field validation
- k. As-built model creation
- l. Final BIM deliverable

## **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. None.

## **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

## **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

A. N/A.

**END OF SECTION**

**BID PACKAGE 06**  
**ELECTRICAL AND LOW VOLTAGE**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
08 17 13	Integrated Door Assemblies
08 31 16	Access Panels
08 42 43	ICU-CCU Entrances
08 71 13	Automatic Door Operators
26 05 10	Selective Electrical Demolition
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 05 26	Grounding And Bonding for Electrical Systems
26 05 29	Hangers And Supports for Electrical Systems
26 05 33	Raceway And Boxes for Electrical Systems
26 05 53	Identification For Electrical Systems
26 05 73	Overcurrent Protective Device Coordination Study
26 09 23	Lighting Control Devices
26 22 00	Low-Voltage Transformers
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches and Circuit Breakers
26 43 13	Surge Protective Devices for Low-Voltage Electrical Power Circuits
26 51 00	Interior Lighting
27 05 00	Common Work Results for Communications
27 05 26	Grounding And Bonding for Communications Systems
27 05 28	Pathways For Communications Systems

27 11 00	Communications Equipment Room Fittings
27 15 00	Communications Horizontal Cabling
27 52 23	Nurse Call/Code Blue Systems
28 05 00	Common Work Results for Electronic Safety and Security
28 05 13	Conductors And Cables for Electronic Safety and Security
28 05 28	Pathways For Electronic Safety and Security
28 13 00	Access Control
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

B. Electrical

Provide all labor, material and equipment to perform the following per the Contract Documents and as specified below:

1. Contractor will provide all necessary Safe Off.
2. Scope to include Nurse Call, Access Controls, Security, Fire Alarm and Telecom.
3. Provide, install and maintain temporary power for construction. Provide spider boxes and sufficient number of power distribution cords for construction of the site work. Provide and install temporary power as required with not less than 100 amp at 120/208 volt, 3 phase, 4 wire plus ground. Coordinate location of power poles to be in landscape area, avoiding hardscape locations. Coordinate location of panels and power spider boxes with the Construction Manager. Provide duplex outlets with weatherproof GFI protected 20 amp grounded outlets at 1- duplex per 500 square feet. Outlets grouped in clusters of no more than six. Outlets must be accessible to all areas and cords no longer than 50'. Provide temporary lighting throughout building. Temporary lighting needs to be on separate circuit from temporary power. Monthly electrical bill will be paid by Owner. Contractor shall provide and install site temporary lighting on temporary power poles and additional temporary light poles as required to light up the site at night. Contractor shall remove temporary power and poles as directed by Construction Manager once temporary power is not needed.
4. Contractor shall furnish and install all electrical work/devices/terminations (conduits, wiring, conductors, raceways, wiremold, outlet and junction boxes, pull boxes, vaults, wiring devices, switches, disconnects, distribution boards, etc.) within the building and site, including, but not limited to, electrical power, lighting (normal and emergency), support and seismic systems, design-build fire alarm systems, site feeder/signal services, Theatrical lighting systems, lighting control, exit signs, as required by the Contract Documents.
5. Contractor shall furnish and install all electrical services, conduit systems and connections for low voltage systems that may be furnished and installed by others. Reference the contract documents for requirements and scope responsibilities. Include connections of line voltage wiring to each equipment item and control device as required and include pull strings for an operational system.
6. Contractor shall provide all required equipment to off load, lift, rig, and install all electrical equipment as noted in the Contract Documents.
7. Contractor shall ensure that all electrical distribution including but not limited to, breakers, disconnects, switchboards, panel boards, and Motor Control Centers have a code (National,

State and Local) compliant lockout tag-out capability. Contractors responsible for lockout/Tag out of panels during construction.

8. Contractor shall furnish and install all pull/splice boxes, transformer pad, frames, covers, grounding devices, and all other accessories required by the Contract Documents.
9. Contractor shall include all coring and saw cutting and patching required for Contractors Work. Contractor shall notify the Construction Manager and Owner prior to any saw cutting and/or coring.
10. Contractor shall furnish and install all electrical grounding systems as required for systems and services as shown and/or specified. Additionally, Contractor shall fully coordinate the primary grounding system with all other Contractors.
11. Contractor shall furnish and install all racks, panel supports, mounts, and all other types of supports required for all electrical/signal/communication/data/CCTV and similar systems, which are shown and required by the Contract Documents. Rack systems shall include necessary seismic restraints.
12. Contractor shall furnish and install all plywood back boards in electrical and data rooms.
13. Contractor shall participate in trade coordination meetings, preparation of coordination and shop drawings, and the coordination of installations with products and materials provided by other crafts. These coordination drawings shall include areas where limited space availability necessitates maximum utilization of space for the efficient installation of different components and the identification of any areas of potential conflict.
14. Contractor shall furnish and install all electrical line voltage rough in, interconnects and final connections to new HVAC equipment items as per the Contract Documents. Contractor shall coordinate all line voltage work with HVAC Bid Package.
15. Contractor shall furnish and install all electrical/data/control rough-in and final connections to equipment items/work which may be furnished by others, unless otherwise noted, such as but not limited to: projection screens/projectors, drinking fountains, flush valves, kitchen equipment, gas/solenoid valve(s), fire suppression system, condensate pump(s), electrical items that are within casework and millwork elements, HVAC and Plumbing power requirements to new or relocated units as required by the Contract Documents, code requirements, and specific requirements by the equipment manufacturer. Reference the specific equipment specifications for requirements in other sections of the Contract Documents.
16. Contractor shall furnish and install all necessary conduit, wiring, and connections required for the fire sprinkler tamper switches, bells and supervisory systems. Coordinate this work with Fire Sprinkler System.
17. Contractor shall furnish and install power (line/low voltage as applicable), power supplies, signal control, transformers, circuiting, wiring, and all connections to electrified door hardware and related components that are listed in the finish hardware specification section and/or as otherwise required by the Contract Documents. Coordinate all rough-in locations with the hollow metal and finish hardware suppliers.
18. Contractor shall furnish and install all interior and exterior lighting and power, site pole lighting, custom lighting, signage, security cameras, conduits, and circuiting as noted in the Contract Documents. Light pole bases shall be furnished with anchorage bolts accompanied with a bolt template attached for each location. Contractor shall coordinate the locations and placement requirements for anchor bolts and templates with the Bid Package for Concrete, Rebar and Grading. Contractor shall coordinate grout under light pole base plates as required. Contractor to grout under each light pole.
19. Contractor shall furnish and install wood nailers for electrical supports and curbs.
20. Contractor shall furnish and install all electrically illuminated and/or self-illuminated exit signage and "low level" exit signage as required by the Contract Documents.
21. Contractor shall furnish and install a complete fire alarm system and fire alarm system with emergency voice/alarm communication per the Contract Documents. Contractor shall coordinate, interface, and incorporate all HVAC mechanical units shut down requirements into the fire alarm design with the Mechanical Contractor. The fire alarm design shall

comply with all National, State, and local codes and shall be the Contractors responsibility to submit for review, approval, and permit with all Authorities Having Jurisdiction. The fire alarm points of connection to equipment provided by other trades will be no more than 12" away from the point of connection.

- 22. Contractor shall furnish and install pitch pans/ roof jacks for all conduit penetrations on the roof. Contractor shall coordinate all roof penetrations with the appropriate prime trade for locations of penetrations to their equipment. Roof penetrations shall not interfere with the operation or servicing of equipment, i.e., conduit shall not be located in front of equipment access doors.
- 23. Contractor shall provide and install any necessary sleeves, block-outs or coring necessary to complete work.
- 24. Contractor shall include all fire-rated caulking and packing materials required to encase conduits/sleeves at points of penetration through fire-rated and smoke-rated construction. Include all hangers, supports, angles, sleeves, access doors required for a complete installation.
- 25. Contractor shall validate all electrical/communication/data/control system installations based on the Contract Documents.
- 26. Contractor shall properly coordinate the locations and spatial/dimensional requirements (including specific dimensions shown on the plans) of all Contractors' work, items with all other trade work items so that conflicts are avoided. Contractor shall verify that all work items will fit within the designed wall cavities, ceiling spaces, and furred areas before any affected building elements are constructed, e.g., foundations, slab on grade and elevated decks.
- 27. Contractor shall furnish and install all necessary angles, clamps, hangers, channels, unistrut, supports, wires, cables, threaded rod, miscellaneous steel, isolation devices, seismic anchorage, slack wires, and backing for Contractor's work. All work shall comply with applicable Codes and Contract Document requirements.
- 28. Contractor has reviewed all of the Contract Documents and acknowledges that each specific prime contractor is responsible to furnish and install each of the specified/shown components, conduit systems, equipment items, and low/line voltage wiring are clearly defined between the Divisions 21, 22, 23, 26, 27 and 28 so that all items required by the Contract Documents are furnished and installed.
- 29. Contractor to wire all fire sprinkler valve supervisory devices and water flow switches.
- 30. Contractor shall fully coordinate with the mechanical, fire sprinkler and fire alarm Contractors with regards to the smoke/fire dampers and duct/mechanical equipment smoke detection systems, including locations of detection devices and installation of LED indicators denoting locations of dampers (as applicable).
- 31. Contractor shall protect the roofing membrane and/or waterproof deck coating systems with temporary plywood protection during the installation of the electrical work in such areas, as required.
- 32. Contractor shall furnish and install sleepers sitting on walk pad material (or other types of proper support) if applicable, under conduits and similar items that run horizontally on the roof membrane. This type of support shall be installed in the absence of a specific detail.
- 33. Contractor shall ensure that the locations, configuration, sizes, and height of roof penetrations shall be fully compatible with the type of roof system and manufacturer's warranty. Bid Package 8, Roofing and Sheet Metal shall approve all such items prior to installation. The design, proper sequence, and installation of jacks/flashings shall be coordinated with the installation of the roofing system. The height of all penetrations shall be a minimum of 8" above the highest point of the finished roof surface.
- 34. Contractor shall install pull ropes in all spare or empty conduits and conduit systems that are installed under this scope of work to be used by other bid packages.
- 35. Contractor shall include the furnishing and installation of all electrical and similar related work items as may be referenced throughout the Contract Documents by typical notations,

such as, "by Electrical Contractor", "by Contractor", "by General Contractor", "E", "Fire Alarm Contractor" and similar that may be noted on the Contract Documents.

36. Contractor shall ensure that all fixtures, equipment and work, including installation, shall fully comply with current Codes (even if contrary to the Contract Documents and submittal approvals by the Engineer). Contractor shall request specific written direction from Construction Manager before proceeding with any work that is non-compliant.
37. Contractor shall furnish and coordinate all electrical fixture/equipment templates for cutouts in cabinetry and all other building components, as applicable.
38. All light fixture lenses shall be protected by plastic wrapping during the construction period, and plastic wrapping shall be removed at the completion of the project or as directed by Contractor. Contractor shall also perform the final cleaning of all equipment, light fixtures, and fixture lenses at a time directed by Construction Manager.
39. Contractor shall perform all specified labeling, stenciling, tagging, and identification of all equipment, panels, conduit systems, devices, and fixtures, which are included in this scope of work, prior to fire alarm testing.
40. Contractor shall provide and install all power supplies, raceways and back boxes only for audio/visual, communications, voice/data systems, network systems, video surveillance, access control and intrusion detection systems.
41. Contractor to provide all nodes shown and or necessary but not shown for a complete access control system. Contractor to coordinate with door contractor for access control related requirements.
42. Contractor shall furnish and install all access doors that are required for electrical equipment, components, and systems. The proper type and finish of architectural access doors shall be in accordance with the provisions of the Contract Documents and Building Code. Contractor shall coordinate all opening sizes with the respective bid packages, e.g., framing and acoustic ceiling. Installation of access doors shall be by this Contractor.
43. Contractor shall furnish and install grounding of static dissipative flooring.
44. Provide and install power connections to irrigation controllers. Include conduit and wire. Provide raceway for low voltage connection.
45. Provide Coordination study as required.
46. Contractor to install all Owner Furnished Equipment that ties into contractor's work.
47. Contractor shall design, furnish and install all anchorage for equipment over 400 lbs.

## PROJECT BUILDING INFORMATION MODELING (BIM) GUIDELINES

### 1. INTRODUCTION

- 1.1 A Building Information Model (BIM) will be developed by the Construction Manager and the Prime Contractors (Structural, Mechanical, Electrical, Plumbing and Fire Protection). The BIM will integrate architectural, structural, mechanical, electrical, plumbing and fire protection systems and components into a virtual model to improve trade coordination, streamline the construction process, and accurately reflect final as-built conditions.

### 2. MODELING REQUIREMENTS

- 2.1 Each Prime Contractor shall produce a trade-specific 3-D model which contains solid 3-D geometry (not lines or wire frames) that represents the actual dimensions of the building elements that will be installed on the project.
- 2.2 The following trades are required to produce a 3-D model:
  - Structural Steel
  - Plumbing
  - Fire Sprinkler
  - Electrical

- HVAC

2.3 Roofing and Acoustical Ceiling Tile will have to provide information and coordinate with the trades listed above.

2.4 Building systems will be organized as separate models linked to a common elevation, origin and benchmark for efficient and accurate coordination purposes. Each floor shall be created as a separate level in the authoring software, and all trades shall reference a shared and documented insertion point and methodology for developing these files.

2.5 BIM Level of development (LOD) requirement.

LOD 400 per the AIA BIM Protocol (E202) will be required. Model detail shall include, but not limited to, all system fittings, equipment, valves, flanges, insulation, hangers, braces, maintenance access areas, and code-enforced clearance requirements. Structural elements such as foundations, pits, slabs, decks, beams, columns, connector plates, gusset plates and braces shall be modeled. Prime Contractors are encouraged to also include any and all objects that would facilitate the coordination with other applicable trades. A trade-specific LOD chart will be distributed by the Construction Manager at the beginning of the coordination process.

2.6 Layer names of model objects shall be logical, accurate and consistent throughout the BIM.

2.7 Two-dimensional shop drawings, submittal drawings, and as-built drawings shall be extracted from the Project BIM, formatted and submitted to the Design Team in compliance with the Contract Documents by each respective prime contractor.

### 3. TECHNOLOGY PLATFORM AND SOFTWARE

3.1 It is the responsibility of the Prime Contractor to have or obtain the proper hardware and software needed to successfully complete the BIM 3-D coordination process.

3.2 The choice of 3-D modeling software is open, but any software utilized must be able to export to a .DWG file format. Parametric modeling programs with direct .NWC/.NWD export options are preferred.

3.3 Prime Contractors are encouraged to have Navisworks Manage to conduct in-house clash detection and coordination prior to coordination meetings.

### 4. QUALIFICATIONS OF BIM PERSONNEL

4.1 It is the responsibility of the Prime Contractor to have or obtain trained personnel to successfully participate in the BIM 3-D modeling and coordination process. Personnel participating in the modeling and coordination efforts must be proficient in the use of all hardware and software required and must have field application/installation knowledge and experience necessary to make coordination decisions for their scope of work.

4.2 The Prime Contractor assigned personnel will be required to have access to an email account and the internet for file sharing and participation in web-based coordination meetings.

### 5. PARTICIPATION REQUIREMENTS

5.1 Each Prime Contractor is required to actively participate in on-site and web-based BIM coordination meetings. Coordination meetings must be attended by each Prime Contractor's Qualified BIM Personnel throughout the duration of the project, the majority of which will be web-based. Field personnel are also encouraged to attend these coordination meetings for constructability input.

5.2 The purpose of the BIM coordination meetings will be to identify, track and document interferences and clashes between the trades that require Construction Manager's facilitation and/or changes in contract document design. Prime Contractors shall conduct proactive model review and clash detection and coordination with other trades between meetings and arrive to meetings prepared with a list of unresolvable items to discuss.

- 5.3 Coordination software will be utilized to assemble the various models and provide a report of coordination and/or design issues, usually within 24 hours of the meeting. The report will be reviewed by the team members and agreed upon solutions shall be implemented into the 3-D models in a timely fashion by the respective trade. Implementation includes re-modeling, re-analyzing, and re-distributing the updated BIM. This process will be repeated until all coordination issues are resolved.
- 5.4 A detailed coordination schedule will be developed and distributed by the Construction Manager at the beginning of the BIM coordination process.

## 6. BIM WORK PLAN

- 6.1 At the commencement of the BIM coordination process, a BIM Work Plan will be issued by the Construction Manager which will include:
  - a. Project sequence and schedule for initial delivery of each model
  - b. Schedule for updating of each model and preservation of versions of each model
  - c. File formats used for project submittal and file exchange
  - d. Compliance with Folder Structure, File Naming, Object naming conventions
  - e. Utilization of Web Site and FTP Sites
  - f. Trade-specific LOD requirements
  - g. Model origin (common 0,0,0 location)
  - h. Coordination report format
  - i. Model sign-off procedure
  - j. Field validation
  - k. As-built model creation
  - l. Final BIM deliverable

## **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

- A. The following specific work items listed below will be provided by others:
  1. None.

## **1.04 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.
- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

## **1.05 CONTRACTOR'S DUTIES**

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit Material Safety Data Sheets (MSDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of MSDS, instructions regarding MSDS and maintaining all stored materials on site in strict accordance with MSDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## **1.06 ALTERNATES**

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## **1.07 ALLOWANCES**

- A. N/A

## **END OF SECTION**

**BID PACKAGE 17**  
**Owner Furnished Contractor Installed Equipment**

**1.01 SECTION INCLUDES**

- 1.02 Work covered by Contract Documents
- 1.03 Related work by others under separate bid packages
- 1.04 Contractors use of premises
- 1.05 Contractors duties
- 1.06 Alternates
- 1.07 Allowances

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

**A. Work Included**

The work to be performed by the Contractor shall conform to all of the Contract Documents including, but not limited to, the requirements of Division 0 and Division 1 as well as the Instructions to Bidders, General Conditions, Supplementary Conditions, Special Conditions, if any, Project Specifications, all Drawings contained within the Contract Documents and other related documents and shall include the furnishing of all supervision, labor, services, materials, installation, cartage, hoisting, supplies, insurance, equipment, scaffolding, tools, and other facilities of every kind and description required for the prompt and efficient execution of the work described herein and to perform the work necessary or incidental to complete the Project, including installation of all items furnished within this Bid Package, in strict accordance with the Contract Documents and more particularly, though not exclusively, specified in:

<b><u>Specification Section</u></b>	<b><u>Description</u></b>
06 10 53	Miscellaneous Rough Carpentry
10 11 16	Markerboards
10 26 00	Wall And Door Protection
10 28 13	Toilet Accessories
10 44 00	Fire Protection Specialties
10 51 13	Metal Lockers
12 24 13	Roller Window Shades
TIO	Testing, Inspection, and Observation Program
Division 1	General Requirements*

\* As applicable to work within this Bid Package.

**B. Product Delivery, Storage, And Handling:**

- 1. Receive, store and handle products in accordance with the manufacturer's instructions.
- 2. Protect equipment items as required to Prevent damage during storage and construction

**C. Installer Contractor's Responsibilities**

- 1. Verify mounting and utility requirements for Owner-furnished materials and equipment items.
  - a. Coordinate and utility rough in for all items where required.
  - b. Rough in locations, sizes, capacities, and similar type items shall be as indicated and required by product manufacturer.

c.

D. Owner and Installer Contractor(s) Responsibilities:

1. Owner-Furnished/Contractor Installed ("OFCI"): Furnished by the Owner; installed by the Installer Contractor.
  - a. Owner and Installer Contractor(s) will coordinate deliveries of materials and equipment to coincide with the construction schedule.
  - b. Owner will furnish specified materials and equipment delivered to the site. Owner/vendor's representative shall be present on site at the time of delivery to comply with the contract requirements and Specifications.
  - c. The Owner furnishing specified materials and equipment is responsible to provide manufacturer guarantees as required by the Contract to the Installer Contractor.
2. The Installer Contractor shall:
  - a. Review, verify and accept the approved manufacturer's Submittal/Shop Drawings for all materials and equipment required to be installed by the Installer Contractor and furnished by the Owner. Any discrepancies, including but not limited to possible space conflicts, should be brought to the attention of the Project Manager and/or Program Manager, if applicable.
  - b. Coordinate timely delivery. Installer Contractor shall receive materials and equipment at Site when delivered and give written receipt at time of delivery, noting visible defects or omissions; if such declaration is not given, the Installer Contractor shall assume responsibility for such defects and omissions.
  - c. Store materials and equipment until ready for installation and protect from loss and damage. Installer Contractor is responsible for providing adequate storage space.
  - d. Coordinate with other bid package contractors and field measurement to ensure complete installation.
  - e. Uncrate, assemble, and set in place.
  - f. Provide adequate supports.
  - g. Install materials and recommendations, instructions, and Shop Drawings, supply labor and material required, and make mechanical, plumbing, and electrical connections required to operate equipment.
  - h. Be certified by equipment manufacturer for installation of the specific equipment supplied by the Owner.
  - i. Provide anchorage and/or bracing as required for seismic restraint per Title 24, UBC Standard 27-11 and all other applicable codes.
  - j. Provide the contract-required warranty and guarantee for all work, materials, equipment, and installation upon its completion and acceptance by the Owner. Guarantee includes all costs associated with the removal, shipping to and from the Site, and re-installation of any equipment found to be defective.
3. Manufacturer's printed descriptions, specifications, and instructions shall govern the Work unless specifically indicated or specified otherwise.
4. Upon completion of installation, clean equipment items in accordance with manufacturer's recommendations, and protect from damage until final acceptance of the Work by the Owner.

E.

### **1.03 RELATED WORK BY OTHERS UNDER SEPARATE BID PACKAGES**

A. The following specific work items listed below will be provided by others:

1. None.

### **1.04 CONTRACTOR'S USE OF PREMISES**

A. Contractor shall have use of the premises for the execution of the work as indicated in the Contract Documents.

- B. Parking shall be at the discretion of the Owner and Construction Manager and as available. A loading/unloading area will be designated to facilitate delivery of equipment and tools. Prior scheduling of large deliveries with the Construction Manager is required.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract.
- D. Move any stored products, materials, or equipment under Contractor's control that interferes with the operations of the school site or other bid packages.
- E. All signs and services required by AQMD for grading and/or site demolition operations.
- F. Coordinate the use of premises under the direction of the Construction Manager.

## 1.05 CONTRACTOR'S DUTIES

- A. Attend job conference meetings or such special meetings as requested by the Construction Manager.
- B. Promptly submit written notice to the Construction Manager of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be issued by the Architect to make any necessary changes.
- C. Enforce strict discipline and good order among employees. Do not employ unfit persons and persons not skilled in assigned tasks to perform any work.
- D. Make thorough examination of the site and access to the site to determine all existing conditions affecting the work.
- E. Maintain a clean and orderly work environment on a daily basis and promptly remove all excess materials at the completion of each activity. Promptly remove all trash and debris resulting from the work performed under this Bid Package.
- F. Contractor must provide and submit safety Data Sheets (SDS) to the Construction Manager for all materials prior to arrival to the Project site. Contractor is responsible for separately maintaining an on-site copy of SDS, instruction regarding SDS and maintaining all stored materials on site in strict accordance with SDS and other governing codes and regulations.
- G. Contractor shall provide task lighting as required to facilitate the work of this Bid Package in a timely manner and in accordance with the Master Construction Schedule. Provide sufficient task lighting to facilitate work of good quality. Temporary lighting for building access purposes will be provided by others in accordance with the latest CALOSHA Safety Orders.
- H. Contractor shall designate a foreman or supervisor for this Project and shall equip said person with a cell phone. Each cell phone shall be used from 6:30am to 7:00pm Monday through Friday and Saturday, if needed and during all other hours work is being executed for direction, coordination and communication as needed for the duration of the Project.
- I. As-built drawings shall be maintained daily and recorded weekly at the Construction Manager's job site office and be approved by the Project Architect or Construction Manager.
- J. Coordinate the work of this Bid Package with that of all Contractors. Resolve conflicts with other Contractors prior to commencing installations. Re-routing to avoid conflicts and interference in the field will be performed at no additional cost to the Owner.
- K. This Contractor shall provide satisfactory proof to the Construction Manager that a Contract has been issued to any Subcontractor listed by the Contractor or vendor in his bid within 30 days of Notice to Proceed. Delivery dates shall be included for materials and equipment within the contract.

## 1.06 ALTERNATES

- A. Items noted as alternates shall govern only if specifically included within the Agreement.

## 1.07 ALLOWANCES

- A. N/A at this time.

### END OF SECTION

RIVERSIDE UNIVERSITY HEALTH SYSTEM

(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

CATHETERIZATION LABORATORY SUITE

COUNTY OF RIVERSIDE, STATE OF  
CALIFORNIA

Appendix C Logistics

## Notes

First and Last Parking Spaces to be blocked off near lay down area.

Contractors to park in designated area.

If no spaces is available, contractors to park in available spaces around parking lots.

## Rumble Strips with Rock

### Material Storage/Contractor Parking

Elevator Equipment (Not Cath Lab Project)

### Path of travel for Material

Contractor entrance at current rotating door

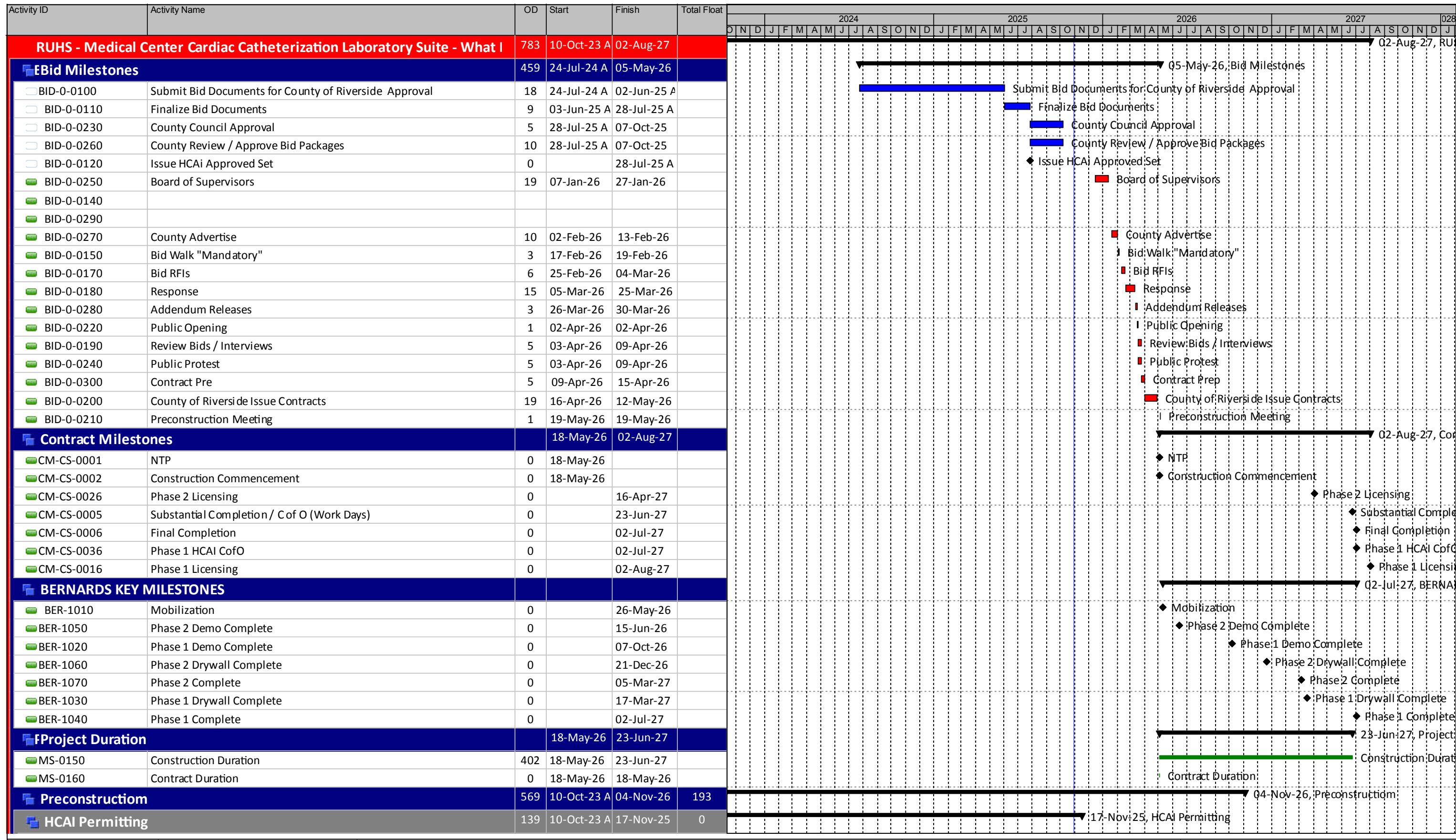
#### Temp Toilets and Hand Washing Station



RIVERSIDE UNIVERSITY HEALTH SYSTEM  
(PROJECT NO. MC08430011869, HCAi NO. S231455-33-00)

CATHETERIZATION LABORATORY SUITE

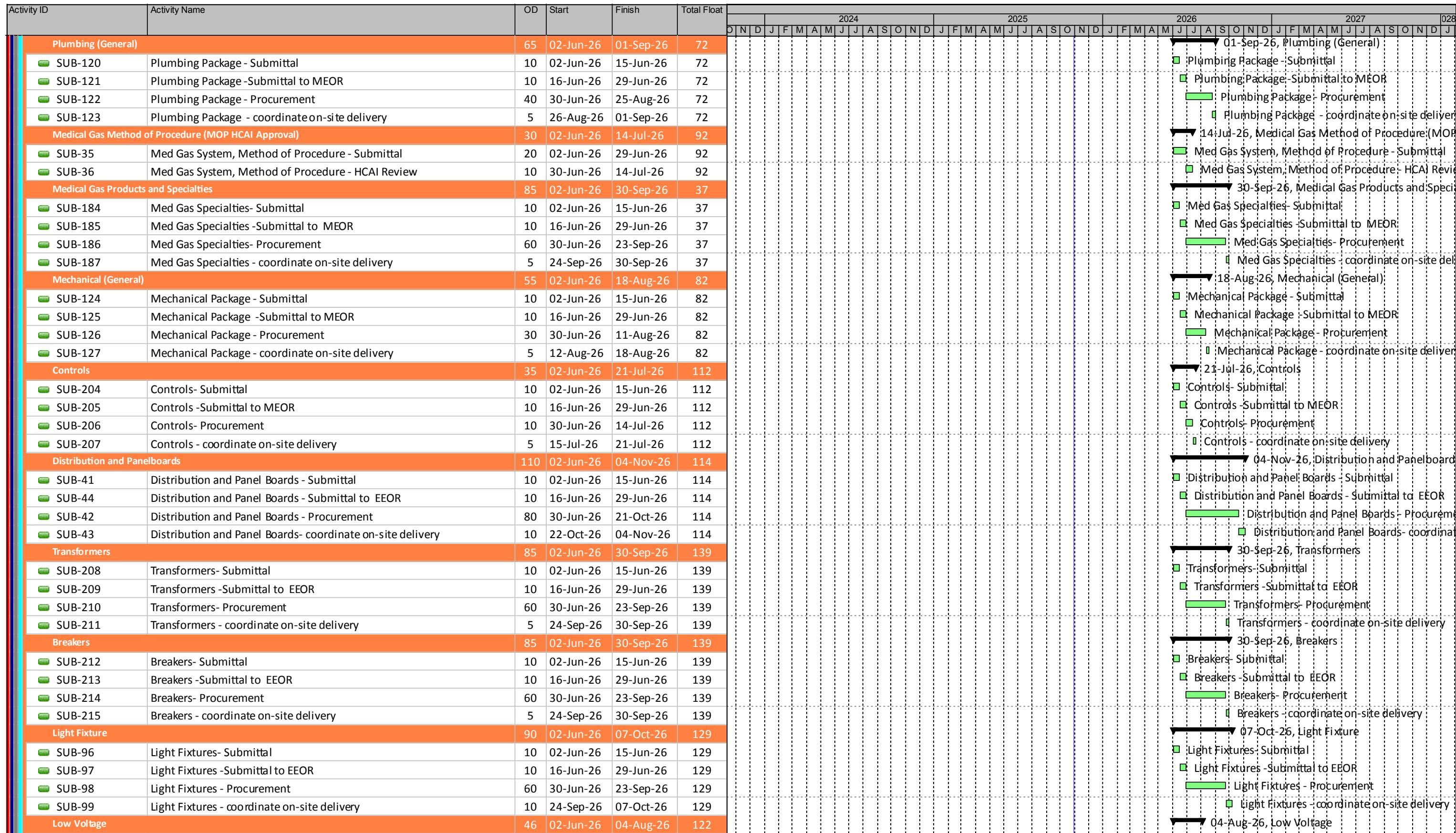
COUNTY OF RIVERSIDE, STATE OF  
CALIFORNIA  
APPENDIX C Schedule







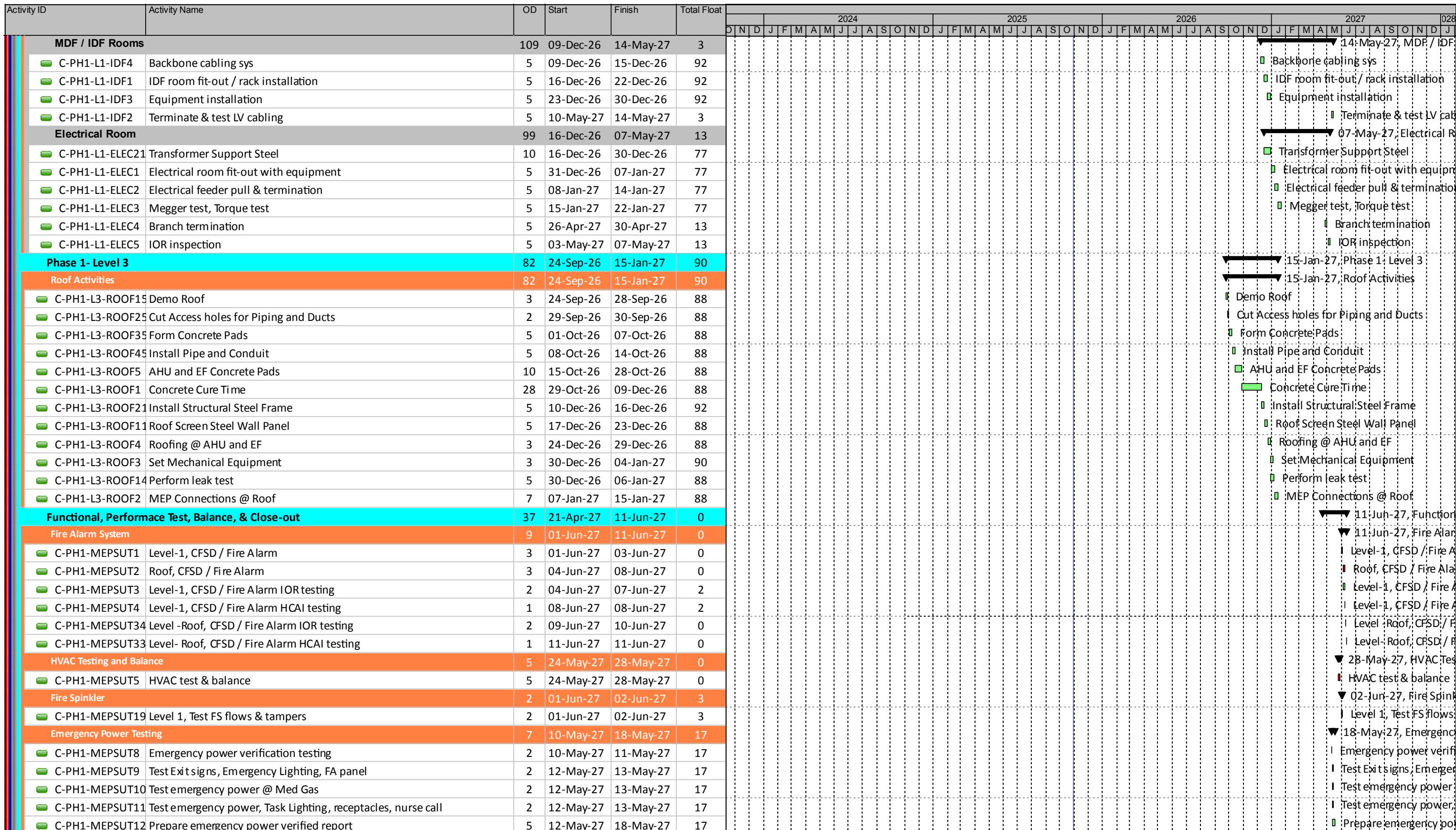


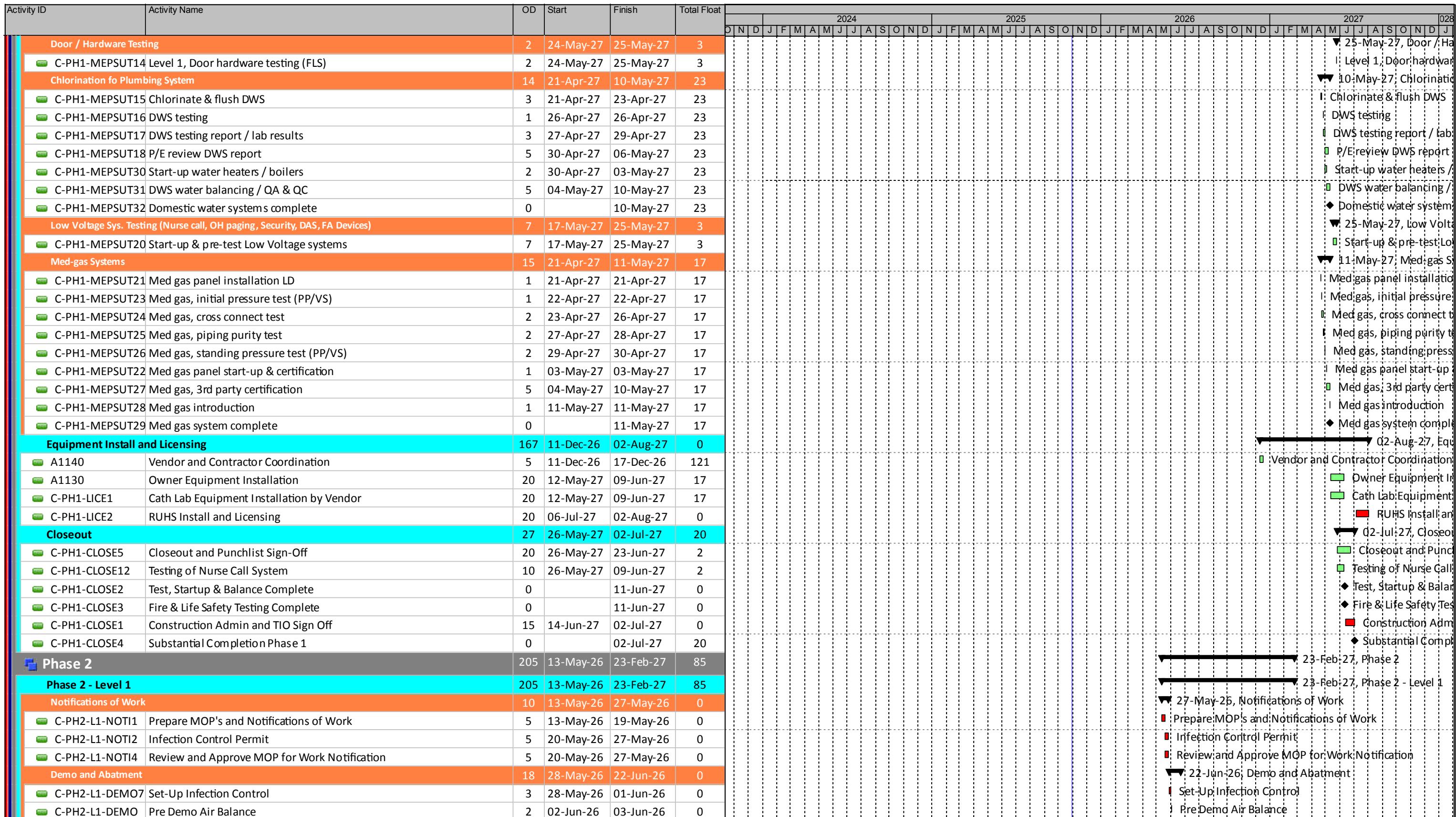














Activity ID	Activity Name	OD	Start	Finish	Total Float	2024						2025						2026						2027						028			
						O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J
C-PH2-L1-IW13	Rough HVAC diffusers@ hardlid	2	07-Dec-26	08-Dec-26	84																												
C-PH2-L1-IW14	Rough electrical @ hardlid	2	07-Dec-26	08-Dec-26	84																												
C-PH2-L1-IW15	Rough FS drops @ hardlids	2	07-Dec-26	08-Dec-26	84																												
Finishes		54	04-Dec-26	23-Feb-27	84																												
C-PH2-L1-F1	2nd Side Drywall	3	04-Dec-26	08-Dec-26	88																												
C-PH2-L1-F28	Hardlid Inspections	1	09-Dec-26	09-Dec-26	84																												
C-PH2-L1-F3	Drywall @ hardlid	3	10-Dec-26	14-Dec-26	84																												
C-PH2-L1-F27	Fire Stopping @ Head of Walls	2	11-Dec-26	14-Dec-26	89																												
C-PH2-L1-F4	Tape and Finish Drywall	5	15-Dec-26	21-Dec-26	84																												
C-PH2-L1-F2	Pull & Terminate BMS Wiring	3	22-Dec-26	24-Dec-26	96																												
C-PH2-L1-F5	Pull all Low Voltage Wire	3	22-Dec-26	24-Dec-26	96																												
C-PH2-L1-F7	Prime and 1st Coat Paint	3	22-Dec-26	24-Dec-26	84																												
C-PH2-L1-F6	Acoustical Ceiling Grid System	3	28-Dec-26	30-Dec-26	84																												
C-PH2-L1-F11	Ceramic Tile	3	28-Dec-26	30-Dec-26	93																												
C-PH2-L1-F10	Casework/counters	3	31-Dec-26	05-Jan-27	97																												
C-PH2-L1-F14	Grout Tile	2	31-Dec-26	04-Jan-27	93																												
C-PH2-L1-F30	Ceiling Grid System Inspection	1	31-Dec-26	31-Dec-26	85																												
C-PH2-L1-F9	ACT MEP/FS Fixtures, Devices, Registers	3	05-Jan-27	07-Jan-27	84																												
C-PH2-L1-F8	OH MEP/FS/FA @ Grid Final Inspections	1	08-Jan-27	08-Jan-27	84																												
C-PH2-L1-F16	Plumbing Finishes & Fixtures	3	08-Jan-27	12-Jan-27	90																												
C-PH2-L1-F12	Electrical Terminations and Fixtures	3	11-Jan-27	13-Jan-27	84																												
C-PH2-L1-F15	ACT Tile	2	14-Jan-27	15-Jan-27	84																												
C-PH2-L1-F29	Install LV sys, Nurse call, OH paging, Security, DAS, FA Devices	5	14-Jan-27	21-Jan-27	84																												
C-PH2-L1-F17	Apply 2nd Coat Paint	3	19-Jan-27	21-Jan-27	84																												
C-PH2-L1-F18	Hang doors & hardware	2	19-Jan-27	20-Jan-27	92																												
C-PH2-L1-F19	Prep Floors	2	22-Jan-27	25-Jan-27	84																												
C-PH2-L1-F20	Flooring	3	26-Jan-27	28-Jan-27	84																												
C-PH2-L1-F21	Remaining Div 10 Finishes	5	26-Jan-27	01-Feb-27	84																												
C-PH2-L1-F22	OFCI	5	26-Jan-27	01-Feb-27	94																												
C-PH2-L1-F23	Bernards / RUHS Punch list	5	02-Feb-27	08-Feb-27	84																												
C-PH2-L1-F24	Punch List Corrections	5	09-Feb-27	16-Feb-27	84																												
C-PH2-L1-F25	Final Clean	5	17-Feb-27	23-Feb-27	84																												
C-PH2-L1-F26	Floor Complete	0		23-Feb-27	84																												
Functional, Performance Test, Balance, & Close-out		19	13-Jan-27	09-Feb-27	86																												
Fire Alarm System		5	03-Feb-27	09-Feb-27	86																												
C-MEPSUT-1	Level-1, CFSD / Fire Alarm	2	03-Feb-27	04-Feb-27	86																												
C-MEPSUT-3	Level-1, CFSD / Fire Alarm IOR testing	2	05-Feb-27	08-Feb-27	86																												
C-MEPSUT-4	Level-1, CFSD / Fire Alarm OSHPD testing	1	09-Feb-27	09-Feb-27	86																												
HVAC Testing and Balance		3	29-Jan-27	02-Feb-27	86																												
C-MEPSUT-5	Level-1, HVAC test &																																

Activity ID	Activity Name	OD	Start	Finish	Total Float	2024						2025						2026						2027						028			
						O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J
C-MEPSUT-8	Emergency power verification testing	2	14-Jan-27	15-Jan-27	96																												
C-MEPSUT-9	Test Exit signs, Emergency Lighting, FA panel	2	19-Jan-27	20-Jan-27	96																												
C-MEPSUT-10	Test emergency power @ Med Gas	2	21-Jan-27	22-Jan-27	96																												
C-MEPSUT-11	Test emergency power, Task Lighting, receptacles, nurse call	2	25-Jan-27	26-Jan-27	96																												
<b>Door / Hardware Testing</b>					2	29-Jan-27	01-Feb-27	87																									
C-MEPSUT-14	Level 1, Door hardware testing (FLS)	2	29-Jan-27	01-Feb-27	87																												
<b>Chlorination fo Plumbing System</b>					14	13-Jan-27	02-Feb-27	91																									
C-MEPSUT-15	Chlorinate & flush DWS	3	13-Jan-27	15-Jan-27	91																												
C-MEPSUT-16	DWS testing	1	19-Jan-27	19-Jan-27	91																												
C-MEPSUT-17	DWS testing report / lab results	3	20-Jan-27	22-Jan-27	91																												
C-MEPSUT-18	P/E review DWS report	5	25-Jan-27	29-Jan-27	91																												
C-MEPSUT-30	Start-up water heaters / boilers	2	25-Jan-27	26-Jan-27	91																												
C-MEPSUT-31	DWS water balancing / QA & QC	5	27-Jan-27	02-Feb-27	91																												
C-MEPSUT-32	Domestic water systems complete	0		02-Feb-27	91																												
<b>Low Voltage Sys. Testing (Nurse call, OH paging, Security, DAS, FA Devices)</b>					3	22-Jan-27	26-Jan-27	91																									
C-MEPSUT-20	Start-up & pre-test Low Voltage systems	3	22-Jan-27	26-Jan-27	91																												
<b>Med-gas Systems</b>					15	13-Jan-27	03-Feb-27	90																									
C-MEPSUT-21	Med gas panel installation LD	1	13-Jan-27	13-Jan-27	90																												
C-MEPSUT-23	Med gas, initial pressure test (PP/VS)	1	14-Jan-27	14-Jan-27	90																												
C-MEPSUT-24	Med gas, cross connect test	2	15-Jan-27	19-Jan-27	90																												
C-MEPSUT-25	Med gas, piping purity test	2	20-Jan-27	21-Jan-27	90																												
C-MEPSUT-26	Med gas, standing pressure test (PP/VS)	2	22-Jan-27	25-Jan-27	90																												
C-MEPSUT-22	Med gas panel start-up & certification	1	26-Jan-27	26-Jan-27	90																												
C-MEPSUT-27	Med gas, 3rd party certification	5	27-Jan-27	02-Feb-27	90																												
C-MEPSUT-28	Med gas introduction	1	03-Feb-27	03-Feb-27	90																												
C-MEPSUT-29	Med gas system complete	0		03-Feb-27	90																												
<b>Equipment Install and Licensing</b>					45	29-Jan-27	02-Apr-27	84																									
A1010	Hyperbaric Chamber Installation by Vendor	10	29-Jan-27	11-Feb-27	84																												
A1020	RUHS Install and Licensing	20	08-Mar-27	02-Apr-27	84																												
<b>Closeout</b>						36	03-Feb-27	26-Mar-27	89																								
C-MEPSUT-34	Test, Startup & Balance Complete	0		03-Feb-27	90																												
C-MEPSUT-35	Fire & Life Safety Testing Complete	0		09-Feb-27	86																												
C-MEPSUT-33	Construction Admin and TIO Sign Off	15	12-Feb-27	05-Mar-27	84																												
C-MEPSUT-38	Substantial Completion PH2	0		05-Mar-27	89																												
C-MEPSUT-48	Closeout and Final Turnover	15	08-Mar-27	26-Mar-27	89																												