

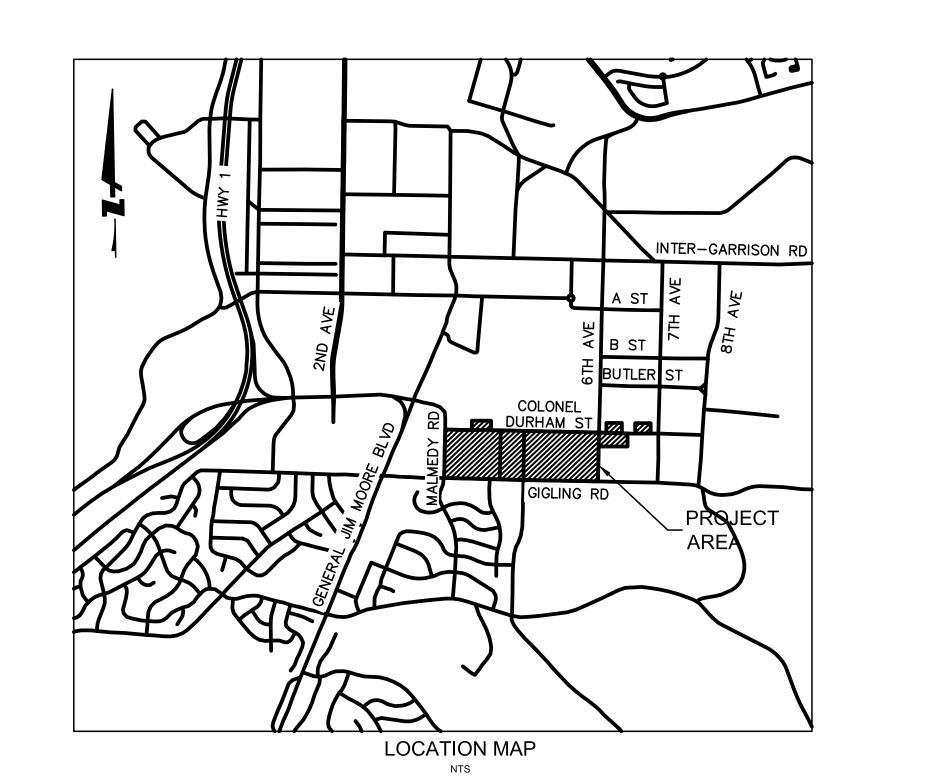
FORT ORD REUSE AUTHORITY

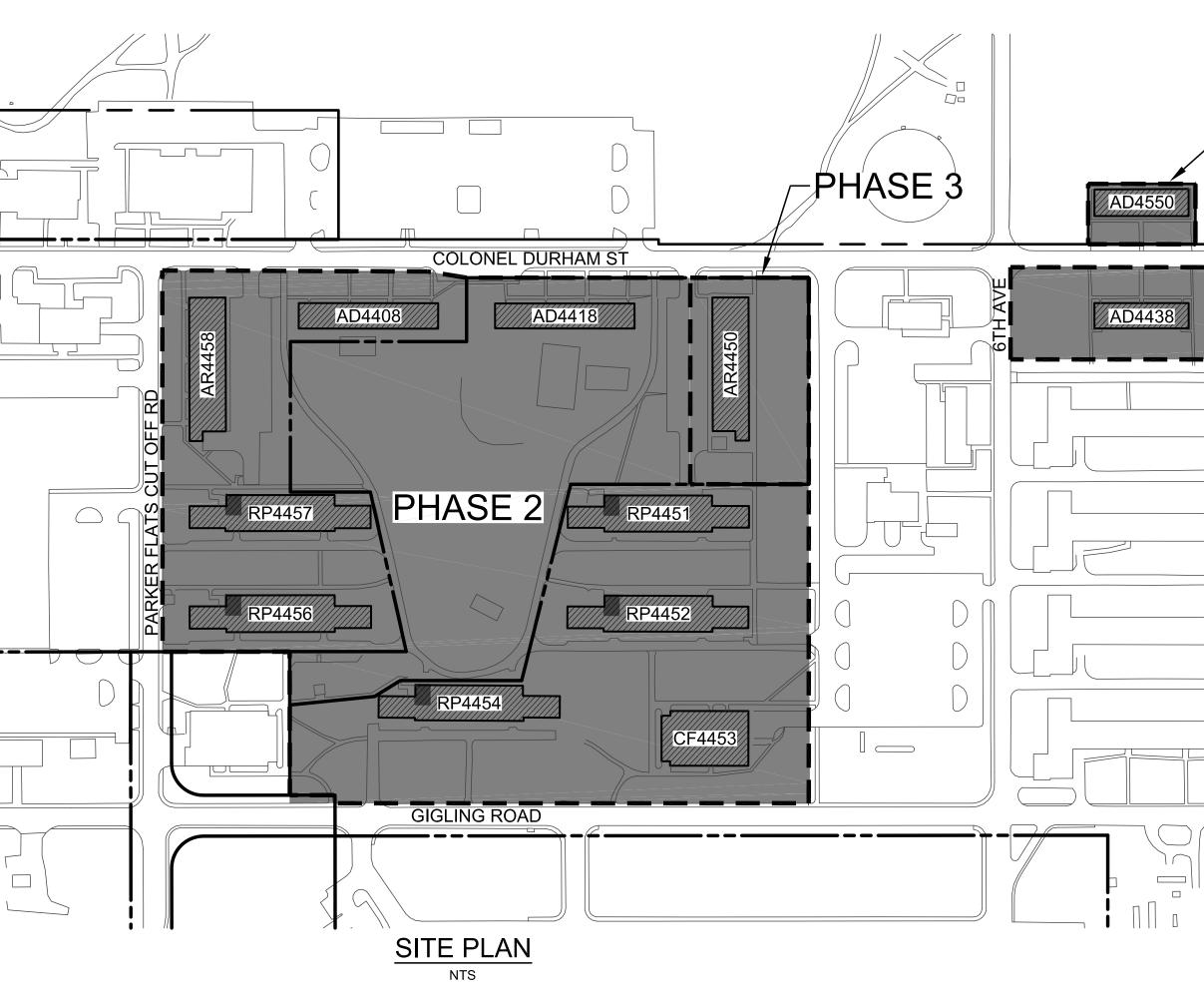
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VOLUME 2

FORT ORD REUSE AUTHORITY SURPLUS II BUILDING REMOVAL CITY OF SEASIDE, MONTEREY COUNTY, CALIFORNIA

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ABBREVIATIONS AC ASPHALT CONCRETE AD ADMINISTRATION BUILDING AR ARMORY BUILDING ACM ASBESTOS CONTAINING MATERIAL CF CAFETERIA BUILDING CG CURB AND GUTTER CO CLEANOUT CONC CONCRETE CY CUBIC YARD E ELECTRICAL EX (E) EXISTING EMH ELECTRICAL MANHOLE	HARRIS & ASSOCIATES 450 Lincoln Avenue, Suite 103		
FORAFORT ORD REUSE AUTHORITYFHFIRE HYDRANTGGASGRGRATE ELEVATIONHBHOSE BIBBINVINVERT ELEVATIONJPJOINT POLEJTJOINT TRENCHLFLINEAR FEETMBUAPCDMONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICTMINMINIMUMOHOVERHEADRIMRIMRIMRIMBUAPCDSTORM DRAINSDCBSTORM DRAINSDCBSTORM DRAINSDMHSTORM DRAIN CATCH BASINSDMHSANITARY SEWERSSMHSANITARY SEWER MANHOLETELTELEPHONETPZTREE PROTECTION ZONETYPTYPICALWWATERWVWATER VALVE	REMOVAL RECESSION	CALIFORNIA	
PHASE 3	II – BUILDING TITIF SHFFT	MONTERE	
	Revisions	CITY OF SEASIDE	BID PURPOSES ONLY S201-ITB1, 12-8-17
	Date: Design:	Approved: Job No:	NOT FOR CONSTRUCTION FOR BID

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THESE PLANS.
- 2. THE CONTRACTOR SHALL GIVE INSPECTORS, THREE (3) WORKING DAYS ADVANCE NOTICE FOR INSPECTION SERVICES.
- 3. ALL REVISIONS TO THESE PLANS MUST BE REVIEWED AND APPROVED IN WRITING BY THE DESIGN ENGINEER PRIOR TO CONSTRUCTION OF AFFECTED ITEMS. REVISIONS SHALL BE ACCURATELY SHOWN ON REVISED PLANS.
- 4. THE CONTRACTOR SHALL RESTORE ANY PERIMETER CURB(S) AND SIDEWALKS WHICH ARE DAMAGED DUE TO THE CONTRACTOR'S WORK TO THEIR PREVIOUS CONDITION.
- 5. IF TEMPORARY LANE CLOSURES ARE REQUIRED FOR CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN, OBTAIN APPROVAL AND NECESSARY PERMITS FROM FORA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL ALSO PROVIDE FLAGMEN, CONES OR BARRICADES, AS NECESSARY TO CONTROL TRAFFIC AND PREVENT HAZARDOUS CONDITIONS PER CALTRANS STANDARDS.
- 6. EXISTING ROADWAYS SHALL BE MAINTAINED DURING CONSTRUCTION TO THE SATISFACTION OF FORA.
- 7. EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED AND SHEATHED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT EXISTING IMPROVEMENTS WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING, BRACING AND SHEATHING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL COMPLETE NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. WHERE THE EXCAVATION FOR A CONDUIT TRENCH. AND/OR STRUCTURE IS FIVE (5) FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL PROVIDE SHEATHING, SHORING AND BRACING IN CONFORMANCE WITH THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL COMPLY WITH OSHA REQUIREMENTS AT ALL TIMES.
- 8. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR THE ENTIRE PROJECT SITE AT ALL TIMES. THE SITE SHALL BE SPRINKLED AS NECESSARY TO PREVENT DUST NUISANCE. IN THE EVENT THE CONTRACTOR NEGLECTS TO USE ADEQUATE MEASURES TO CONTROL DUST, FORA RESERVES THE RIGHT TO TAKE WHATEVER MEASURES ARE NECESSARY TO CONTROL DUST AND CHARGE THE COST TO THE CONTRACTOR.
- 9. DURING CONSTRUCTION, STREETS SHALL BE CLEANED AS OFTEN AS REQUIRED TO REMOVE ANY ACCUMULATION OF MUD AND DEBRIS RESULTING FROM THIS CONSTRUCTION. IF IMPORT OR EXPORT OF DIRT IS NECESSARY, THE CONTRACTOR SHALL OBTAIN APPROVAL FOR THE HAULING ROUTE(S) FROM CITY OF SEASIDE. HAULING ROUTE(S) SHALL NOT GO THROUGH CSUMB CAMPUS. CONTRACTOR TO COORDINATE WITH THE CITY OF SEASIDE. THE HAULING ROUTES SHALL BE STRICTLY ADHERED TO BY THE CONTRACTOR AND ALL SUBCONTRACTORS. DIRT HAULING PERMIT REQUIRED.
- 10. ALL CONSTRUCTION STAKING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. FORA WILL PROVIDE PRIMARY SURVEY STAKING CONSISTING OF SITE CORNERS WITH 2"X2" WOOD HUBS OR PIPES OFFSET 10" OUTSIDE SITE OR MARKING ON SIDEWALK OR TOP OF CURB. CONTRACTOR TO USE THESE HUBS AS REFERENCE FOR THEIR CONSTRUCTION STAKING.
- 11. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR SPECIFIED IN THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL NOTIFY FORA'S PROJECT MANAGER, BEFORE PROCEEDING WITH THE WORK IN QUESTION.
- 12. WHEN SPECIFICATIONS OR STANDARDS FROM DIFFERENT AUTHORITIES DIFFER FOR THE SAME SUBJECT MATTER, THE MORE STRINGENT SHALL GOVERN. IF THERE ARE ITEMS THAT CONTRADICT EACH OTHER IN THE BID DOCUMENTS AND THE CONTRACTOR DID NOT CLARIFY PRIOR TO THE BID, THEN THE STRICTER AND/OR BETTER QUALITY, SHALL APPLY.
- 13. UPON SATISFACTORY COMPLETION OF THE WORK, THE ENTIRE WORK SITE SHALL BE CLEANED UP AND LEFT WITH A SMOOTH AND NEATLY GRADED SURFACE FREE OF CONSTRUCTION WASTE AND RUBBISH OF ANY NATURE OR ANYTHING LARGER THAN 3 INCHES BY THE CONTRACTOR. EXCLUDES LANDSCAPING & TREES NOT DESIGNATED FOR REMOVAL.
- 14. CONTRACTOR SHALL COORDINATE WORK WITH MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT (MBUAPCD) PRIOR TO START. ALL WORK SHALL BE DONE IN COMPLIANCE WITH MBUAPCD.
- 15. CONSTRUCTION HOURS SHALL BE COORDINATED WITH FORA PRIOR TO THE START OF CONSTRUCTION. DEVIATIONS FROM THIS SCHEDULE WILL REQUIRE APPROVAL IN ADVANCE BY FORA.
- 16. THE CONTRACTOR SHALL ERECT A TEMPORARY CONSTRUCTION FENCE ALONG THE PROJECT SITE TO SECURE THE SITE AS REQUIRED.
- 17. IN ORDER TO MINIMIZE CONSTRUCTION NOISE IMPACTS. ALL ENGINE DRIVEN CONSTRUCTION VEHICLES. EQUIPMENT AND PNEUMATIC TOOLS SHALL BE REQUIRED TO USE EFFECTIVE INTAKE AND EXHAUST MUFFLERS: EQUIPMENT SHALL BE PROPERLY ADJUSTED AND MAINTAINED: ALL CONSTRUCTION EQUIPMENT SHALL BE EQUIPPED WITH MUFFLERS IN ACCORDANCE WITH OSHA STANDARDS CONSISTENT WITH MITIGATION MEASURE NOI-GDP-1 AND NOI-SDP-1 IDENTIFIED IN THE MITIGATION MONITORING PROGRAM. CONTRACTOR SHALL COMPLY WITH CITY OF SEASIDE NOISE ORDINANCE REQUIREMENTS AT ALL TIMES. ADDITIONALLY, CONTRACTORS SHOULD ACCOUNT FOR 6-WEEKS OF "QUIET TIME" (3-WEEKS PER SEMESTER) DURING FINALS AT THE NEIGHBORING UNIVERSITY DURING WHICH THEY COULD PERFORM "OTHER" ACTIVITIES SUCH AS HAULING AND LOADING.
- 18. THE CONTRACTOR SHALL NOTIFY FORA'S PROJECT MANAGER, IN WRITING, AT LEAST 48 HOURS PRIOR TO COMMENCING WORK OF ALL DIFFERENCES BETWEEN THE FIELD CONDITIONS AND THE DESIGN INDICATED ON THE PLANS. COMMENCEMENT OF THE RELATED WORK SHALL BE SUBJECT TO THE WRITTEN APPROVAL OF FORA BEFORE ALTERED WORK IS STARTED VIA REQUEST FOR INFORMATION OR CHANGE. UNAUTHORIZED WORK WILL BE AT THE CONTRACTOR'S RISK & EXPENSE AND MAY BE REQUIRED TO BE REPAIRED OR REPLACED IF NOT AUTHORIZED BY FORA, AT CONTRACTOR'S EXPENSE.
- 19. THE GENERAL CONTRACTOR SHALL PROVIDE A QUALIFIED SUPERVISOR ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
- 20. ALL WORK SHALL CONFORM TO THE APPLICABLE CITY/DISTRICT CODES. SUPERINTENDENCE OF CONSTRUCTION SHALL BE DILIGENTLY PERFORMED BY PERSON(S) AUTHORIZED TO DO SO AT ALL TIMES DURING WORKING HOURS. THE STORING OF GOODS, EQUIPMENT AND/OR MATERIALS ON THE PUBLIC SIDEWALK AND/OR A PUBLIC STREET SHALL NOT BE ALLOWED UNLESS A SPECIAL PERMIT IS ISSUED BY FORA OR FORA'S REPRESENTATIVE.
- 21. THE CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY THE CITY OF SEASIDE OR WITH OTHER AGENCIES.
- 22. CONTRACTOR TO CONFIRM THAT FORA HAS RECEIVED PERMISSION FROM CSUMB PRIOR TO ACCESSING THEIR PROPERTY FOR WORK IN THE AREA BY BUILDINGS AD4550 AND AD4560.

II. EXISTING CONDITIONS

- RECORD DOCUMENTS AND AERIAL PHOTOGRAPHY.
- PROJECT SITE.
- THESE PLANS.
- LINES.
- EXCAVATION OR GRADING WORK.
- BORNE BY THE CONTRACTOR.

III. UTILITIES

IN ADVANCE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO ANY DISCONNECTION, ABANDONMENT OF, OR WORK WITH THE LINES AND APPURTENANT STRUCTURES OF THE UTILITIES LISTED BELOW:

STORM DRAIN	- CITY OF S
SANITARY SEWER	- MCWD
WATER	- MCWD
ELECTRICAL	- PG&E
TELEPHONE	– AT&T
GAS	- PG&E

- SHALL GIVE A MINIMUM SEVEN (7) DAYS OF ADVANCE NOTICE TO ETC. WITH A REPRESENTATIVE OF FORA.

IV. ABANDONMENT OF EX UTILITY PIPES AND/OR CONDUITS

- PLACE UNLESS OTHERWISE NOTED.

V. SEDIMENTATION AND POLLUTION CONTROL

- DOCUMENT #20175005-10.
- SWPPP SHALL REMAIN ON-SITE THROUGHOUT CONSTRUCTION.
- THESE IMPROVEMENT PLANS.
- WILL BE PAID BY THIS CONTRACTOR.

VI. RECORD DRAWINGS

- AND THE CONDITION THEREOF.
- FORA.
- DRAWINGS AND SUBMITS THEM TO FORA.

VII. STATEMENT OF RESPONSIBILITY

- NEGLIGENCE OF THE DESIGN PROFESSIONAL.
- CHARACTER OF WORK EQUIPMENT AND LABOR PERSONNEL.

VIII. UNAUTHORIZED CHANGES AND USES

PREPARER OF THESE PLANS.

EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS BASED ON

CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS AND CONDUCT FIELD INVESTIGATIONS AS REQUIRED TO VERIFY EXISTING CONDITIONS AT THE

2. INFORMATION REGARDING EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES SHOWN ON THESE PLANS WAS TAKEN FROM RECORD DATA KNOWN TO THE DESIGN ENGINEER AND IS NOT MEANT TO BE A FULL CATALOG OF EXISTING CONDITIONS. CONTRACTOR SHALL CONDUCT FIELD INVESTIGATIONS AS REQUIRED TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES (WHETHER SHOWN ON THESE PLANS OR NOT) PRIOR TO THE COMMENCEMENT OF WORK. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS IN THE FIELD AND INFORMATION SHOWN ON

3. ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO START OF ANY CONSTRUCTION AFFECTING SAID

4. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF ANY

5. IF THE CONTRACTOR FAILS TO INVESTIGATE KNOWN OR UNKNOWN EXISTING SUBSURFACE IMPROVEMENTS PRIOR TO ANY CONSTRUCTION ACTIVITIES AND UNFORESEEN CONDITIONS ARISE, ALL COSTS AND SCHEDULE IMPACTS WILL BE

1. CONTRACTOR SHALL MAKE ARRANGEMENTS AT LEAST THREE (3) WORKING DAYS

SEASIDE

2. BEFORE DISCONNECTING UTILITY SERVICE TO ANY ESTABLISHMENT, CONTRACTOR ESTABLISHMENT IN WRITING BEFORE THEIR UTILITY IS SHUT DOWN. MAKE ARRANGEMENTS WITH THOSE ESTABLISHMENTS FOR A SCHEDULED SHUT DOWN AND COORDINATE DATE OF SHUT DOWN, DURATION, INCONVENIENCE, DELAYS,

3. BEFORE ABANDONING OR REMOVING ANY UTILITIES, CONTRACTOR IS REQUIRED TO OBTAIN ANY AND ALL NECESSARY PERMITS.

1. EXISTING GRADE MENTIONED IN THESE PLANS IS THE SUBGRADE UNDERNEATH BUILDING FOOTINGS OR AGGREGATE BASE IN ASPHALT PAVEMENT.

2. EXISTING UTILITY PIPES AND/OR CONDUIT TO BE CAPPED AND ABANDONED IN

1. CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WHICH WILL BE PROVIDED BY DESIGNER.

2. CONTRACTOR SHALL UPDATE THE SWPPP AS NECESSARY. A COPY OF THE

3. CONTRACTOR SHALL IMPLEMENT ALL SEDIMENTATION AND POLLUTION CONTROL MEASURES SHOWN ON THE EROSION CONTROL PLANS AND DETAILS INCLUDED IN

4. ALL FINES IMPOSED AND REPAIRS REQUIRED FOR NOT FOLLOWING THE SWPPP

1. DISPOSITION OF ALL UTILITIES ON SITE. THE RECORD DRAWING SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PRINTS AND INDICATE THE FOLLOWING:

a. IDENTIFY LOCATION, SIZE, MATERIAL AND TYPE OF UTILITY (INCLUDING UNDERGROUND STORAGE TANKS) THAT WAS ABANDONED OR LEFT IN PLACE

b. NOTE THE LOCATION AND ELEVATION (OR APPROXIMATE DEPTH RELATIVE TO FINISH GRADE) OF ANY EXISTING UTILITIES LEFT IN PLACE. CONTRACTOR SHALL DELIVER REDLINED PRINTS TO THE DESIGN ENGINEER WITH A COPY TO

2. THE DESIGN ENGINEER INCORPORATES CONTRACTOR'S INFORMATION INTO RECORD

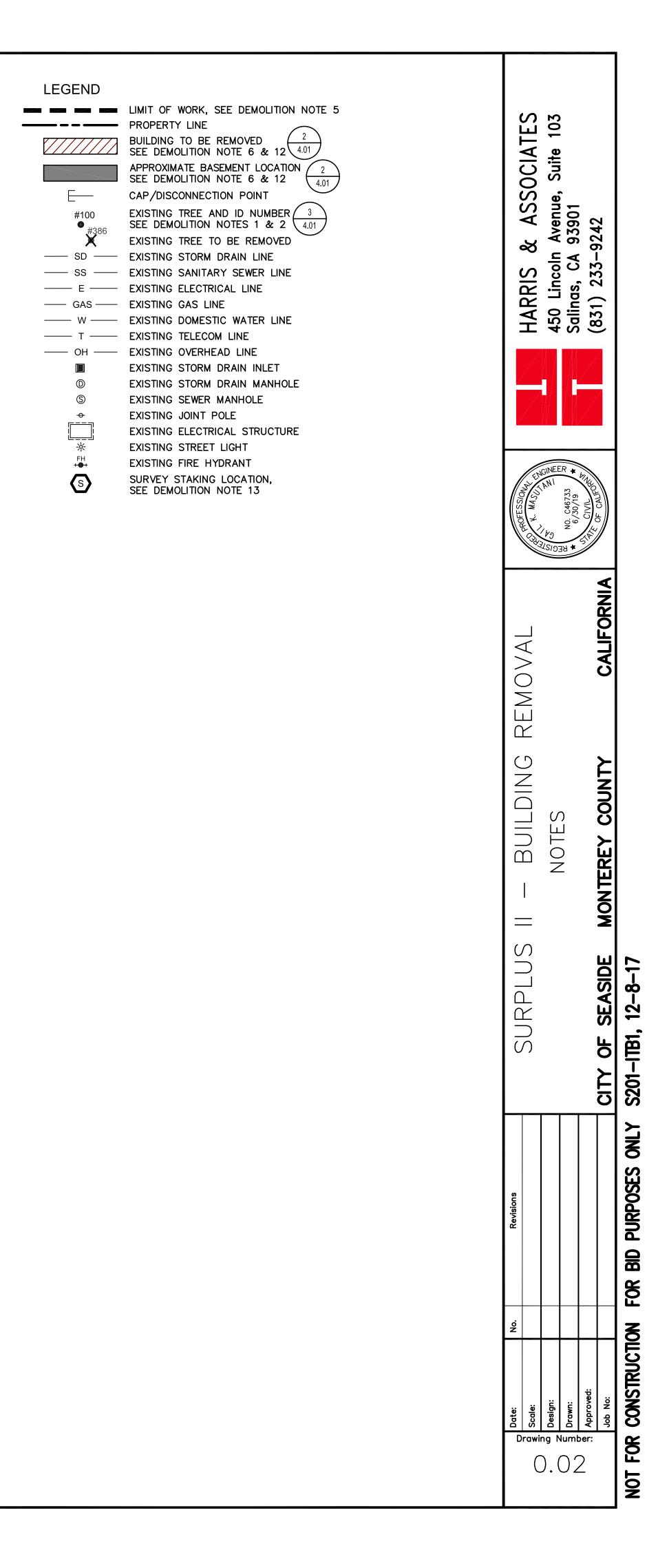
1. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY FORA & ITS REPRESENTATIVES AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE

2. CONTRACTOR SHALL COMPLY WITH ALL STATE, COUNTY AND CITY LAWS AND ORDINANCES: AND REGULATIONS OF THE DEPARTMENT OF INDUSTRIAL RELATIONS. O.S.H.A. AND INDUSTRIAL ACCIDENT COMMISSION RELATING TO SAFETY AND

1. THE DESIGN ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR. OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE

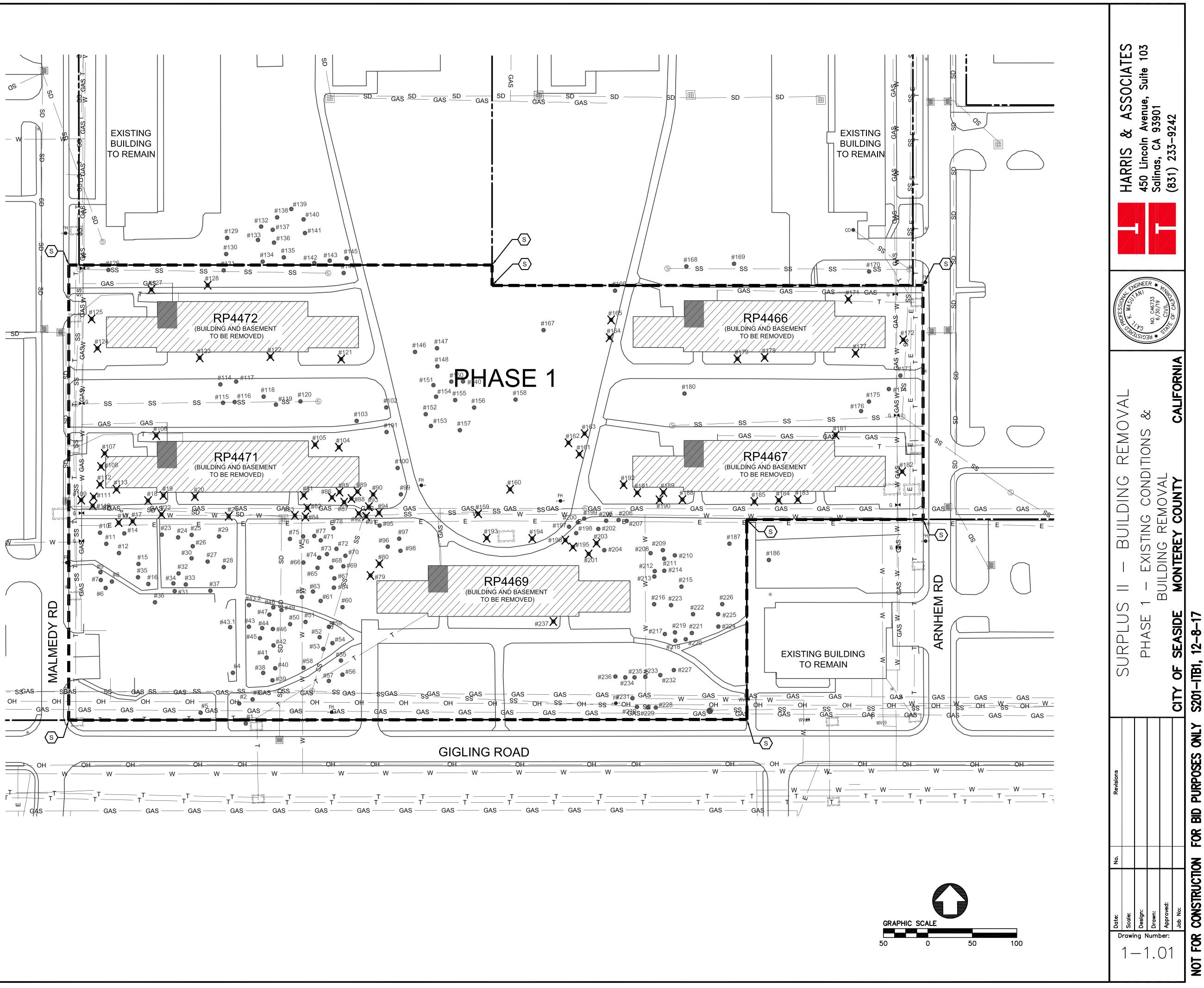
DEMOLITION NOTES

- 1. TREE LOCATIONS ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION OF AND REMOVE TREES AND STUMPS WITHIN 25-FT OF BUILDINGS DESIGNATED FOR REMOVAL. ALL OTHER TREES TO REMAIN UNLESS OTHERWISE NOTED. REFER TO "FORT ORD SURPLUS BUILDING REMOVAL TREE SURVEY" BY FRANK ONO, CERTIFIED ARBORIST #536, FOR ADDITIONAL INFORMATION.
- 2. CONTRACTOR TO CUT UTILITIES SERVING BUILDINGS TO BE REMOVED AT A DISTANCE OF 10-FT FROM BUILDING FOOTPRINT. CONTRACTOR TO REMOVE SEGMENTS OF UTILITY LINES BETWEEN UTILITY CUT AND BUILDING FOOTPRINT REMAINING PORTION OF CUT UTILITIES TO BE CAPPED AND ABANDONED IN PLACE UNLESS NOTED OTHERWISE. SEE NOTE 4.
- 3. CONTRACTOR TO COORDINATE WITH RESPECTIVE UTILITY COMPANIES AND VERIFY UTILITIES ARE INACTIVE AND/OR DISCONNECTED PRIOR TO WORK ON UTILITIES AND BUILDING REMOVAL.
- 4. ALL PERIMETER CURB, GUTTER AND SIDEWALK TO BE PROTECTED. CONTRACTOR TO REPLACE IN-KIND ANY PERIMETER CURB, GUTTER AND SIDEWALK THAT IS DAMAGED DURING BUILDING REMOVAL AND UTILITY ABANDONMENT/REMOVAL.
- 5. CONTRACTOR TO REMOVE SLAB AT THE BOTTOM OF BUILDINGS. BASEMENTS AND CRAWL SPACES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR RESPONSIBLE TO VERIFY BASEMENT AND CRAWL SPACE INFORMATION FOR BIDDING AT THEIR EXPENSE.
 - A. ALL ROLLING PIN BUILDINGS HAVE BASEMENTS & CRAWL SPACE. THE ADMINISTRATIVE, ARMORY, AND GYM BUILDINGS HAVE NO BASEMENTS THE CAFETERIA HAS A CRAWL SPACE UNDER THE KITCHEN PORTION OF THE BUILDING.
- 7. EXISTING CONTOURS AND ELEVATIONS SHOWN FOR REFERENCE ONLY WERE BASED ON GIS INFORMATION PROVIDED BY FORA AND AERIAL PHOTOGRAPHY, REFERENCED TO NAVD88 WITH A $\pm 2-FT$ LEVEL OF ACCURACY.
- 8. IF CONTRACTOR LOCATES AN UNDERGROUND STORAGE TANK (UST) DURING COURSE OF WORK, WORK MUST STOP IN THE AREA AND FORA AND THE CONSTRUCTION MÁNAGER ARE TO BE NOTIFIED IMMEDIATELY SO THAT FORA CAN COORDINATE REMOVAL WITH THE US ARMY. WORK IN THIS AREA MAY RECOMMENCE WITH FORA APPROVAL.
- 9. CONTRACTOR TO FIELD VERIFY LOCATION OF GAS AND ELECTRIC LINES SERVING BUILDINGS TO BE REMOVED, AND COORDINATE DISCONNECTION POINTS AND CONDUIT ABANDONMENT WITH PG&E. SEE NOTE 4.
- 10. CONTRACTOR TO FIELD VERIFY LOCATION OF TELECOM LINES SERVING BUILDINGS TO BE REMOVED, AND COORDINATE DISCONNECTION POINTS AND CONDUIT ABANDONMENT WITH AT&T, COMCAST AND ANY OTHER AFFECTED COMMUNICATIONS COMPANY. SEE NOTE 4.
- 11. CONTRACTOR TO VERIFY THAT FORA AND MCWD HAVE COORDINATED AND FINALIZED ON SEWER AND WATER DISCONNECTION METHOD(S) PRIOR TO STARTING WORK ON SEWER AND WATER FACILITIES.
- 12. CONTRACTOR SHALL GRADE HOLES LEFT BY BUILDING REMOVAL, INCLUDING WHERE THERE ARE BASEMENTS AND CRAWL SPACES. MAXIMUM SLOPE SHALL BE 3:1.
- 13. FORA WILL PROVIDE PRIMARY SURVEY STAKING OF SITE CORNERS WITH WOOD HUBS OR PIPES, AND MARKINGS ON SIDEWALKS OR TOP OF CURB.
- 14. CONTRACTOR TO REMOVE OIL/WATER SEPARATOR SERVING CAFETERIA BUILDING CF4453 AND PROPERLY DISPOSE OF ANY REMAINING OILS AND/OR SUSPENDED SOLIDS.



REFER TO SHEET 1.01 FOR EXISTING CONDITIONS AND BUILDING REMOVAL, AND SHEETS 2.01 AND 2.02 FOR UTILITY ABANDONMENT/PROTECTION.

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104 CAP AND REMOVE EXISTING ELECTRICAL CONDUIT LATERAL AND STRUCTURES.	CASH CASH
106 CAP AND REMOVE EXISTING TELECOM LATERAL AND STRUCTURES.	
PROTECT: 201 CAUTION! PROTECT EXISTING OVERHEAD LINES & JOINT POLES	
203 PROTECT EXISTING GAS LINE AND VALVES	GAS - GAS
204 PROTECT EXISTING ELECTRICAL LINE AND STRUCTURES	
207 PROTECT EXISTING STREET LIGHT, CONDUIT, AND BOX	
209 PROTECT EXISTING BUILDING	
210 PROTECT EXISTING TELECOM LINE AND STRUCTURES	

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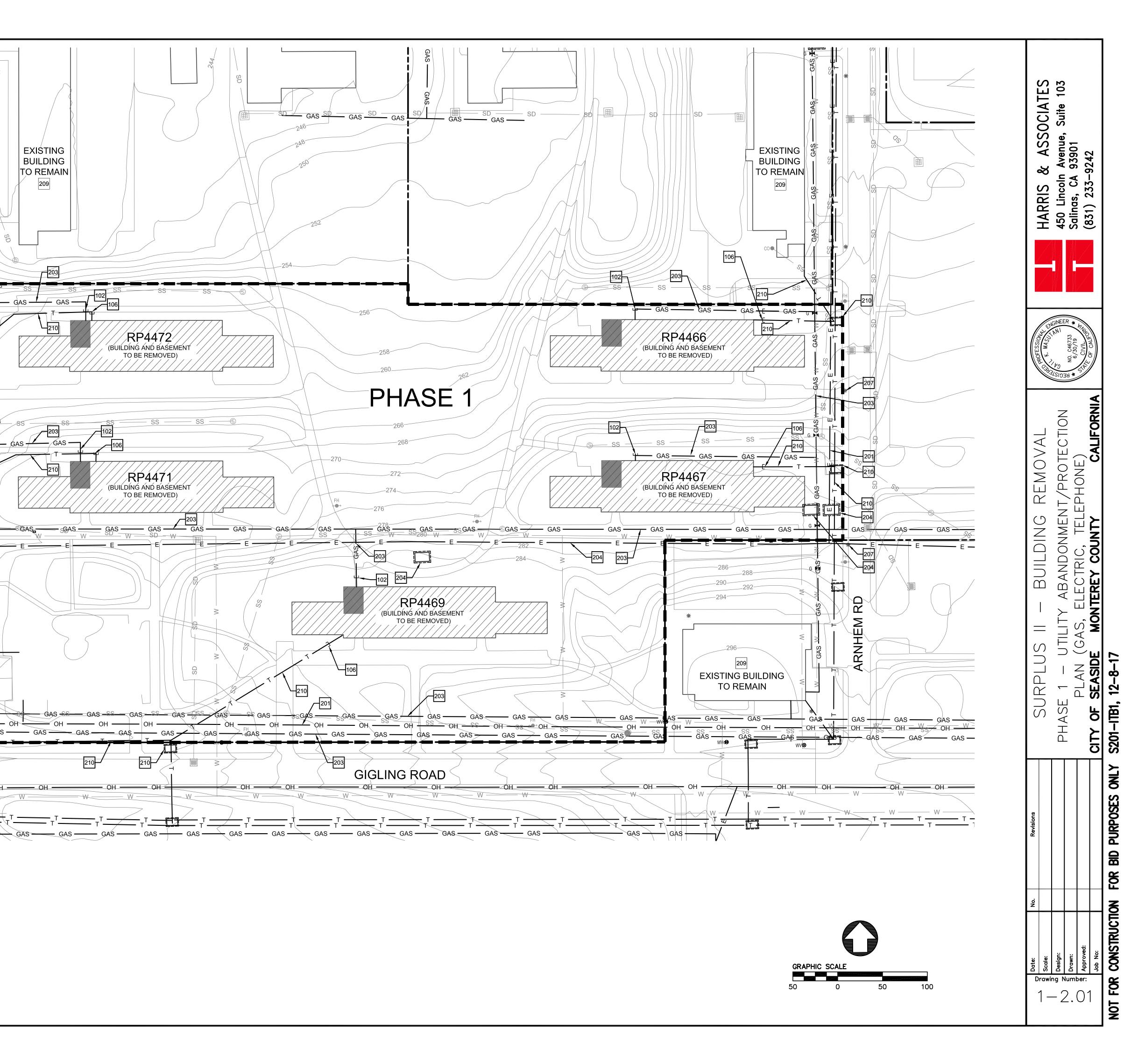
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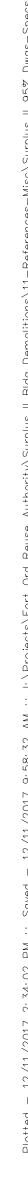
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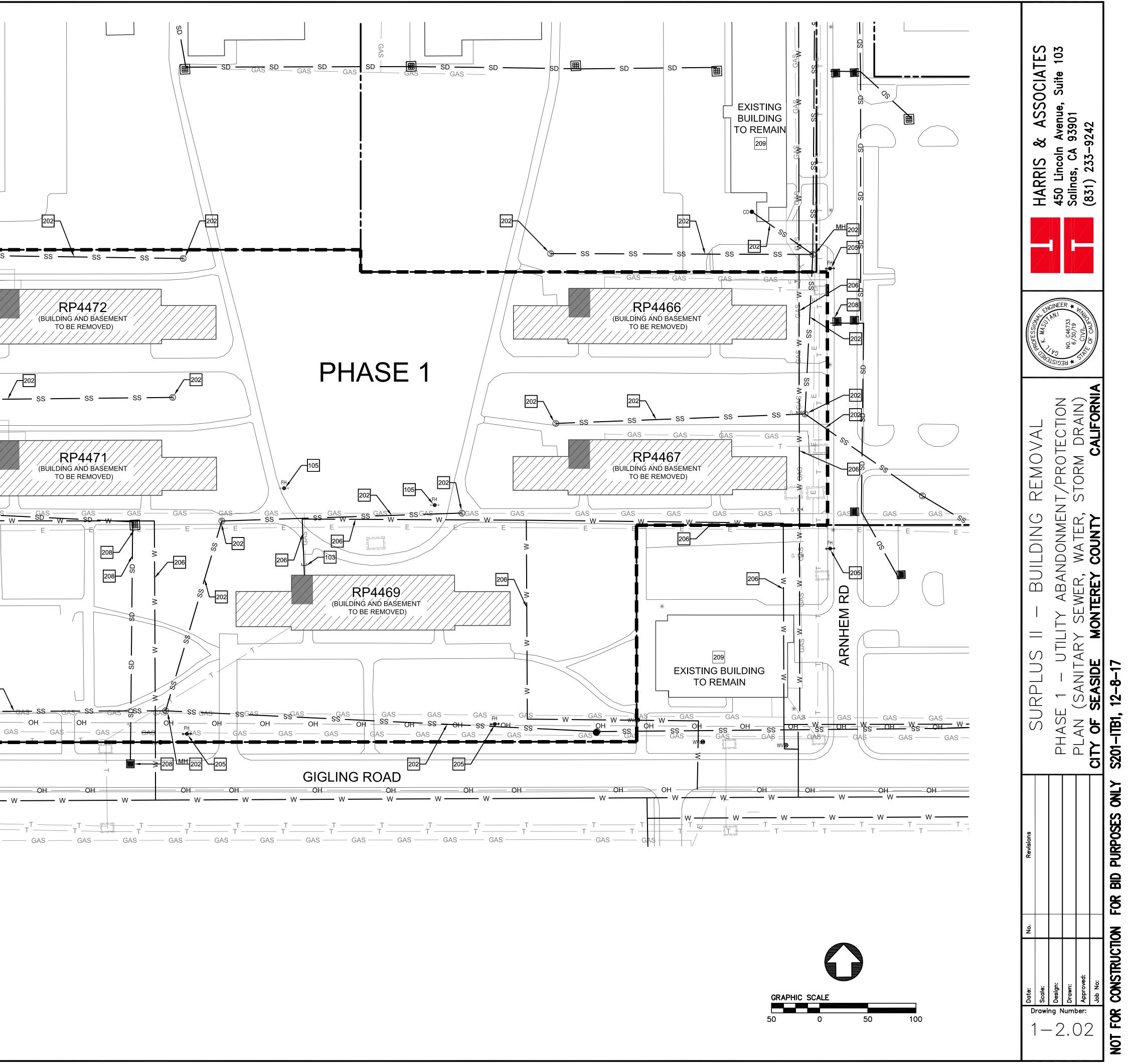
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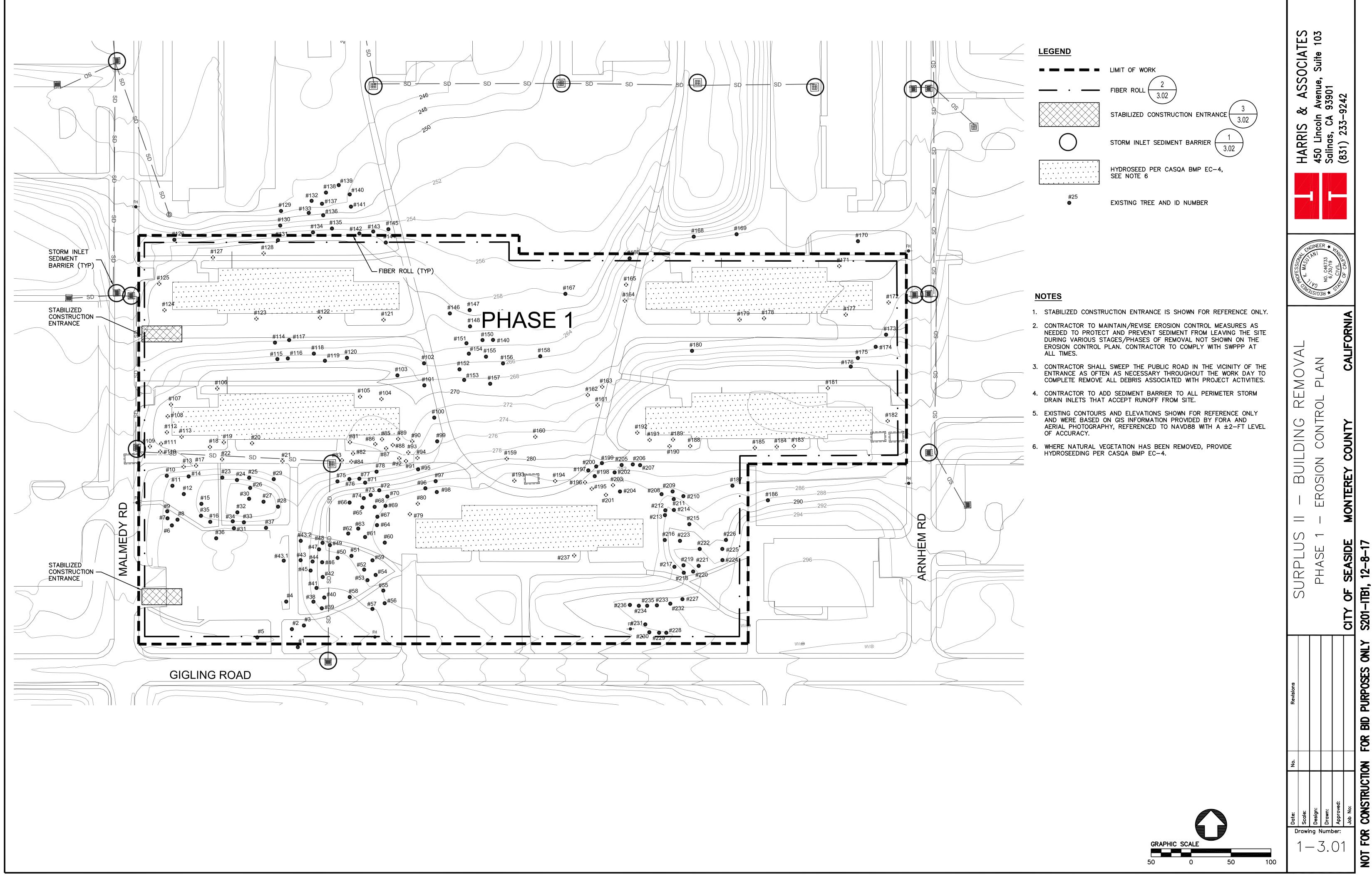
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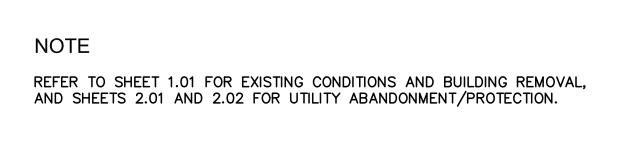


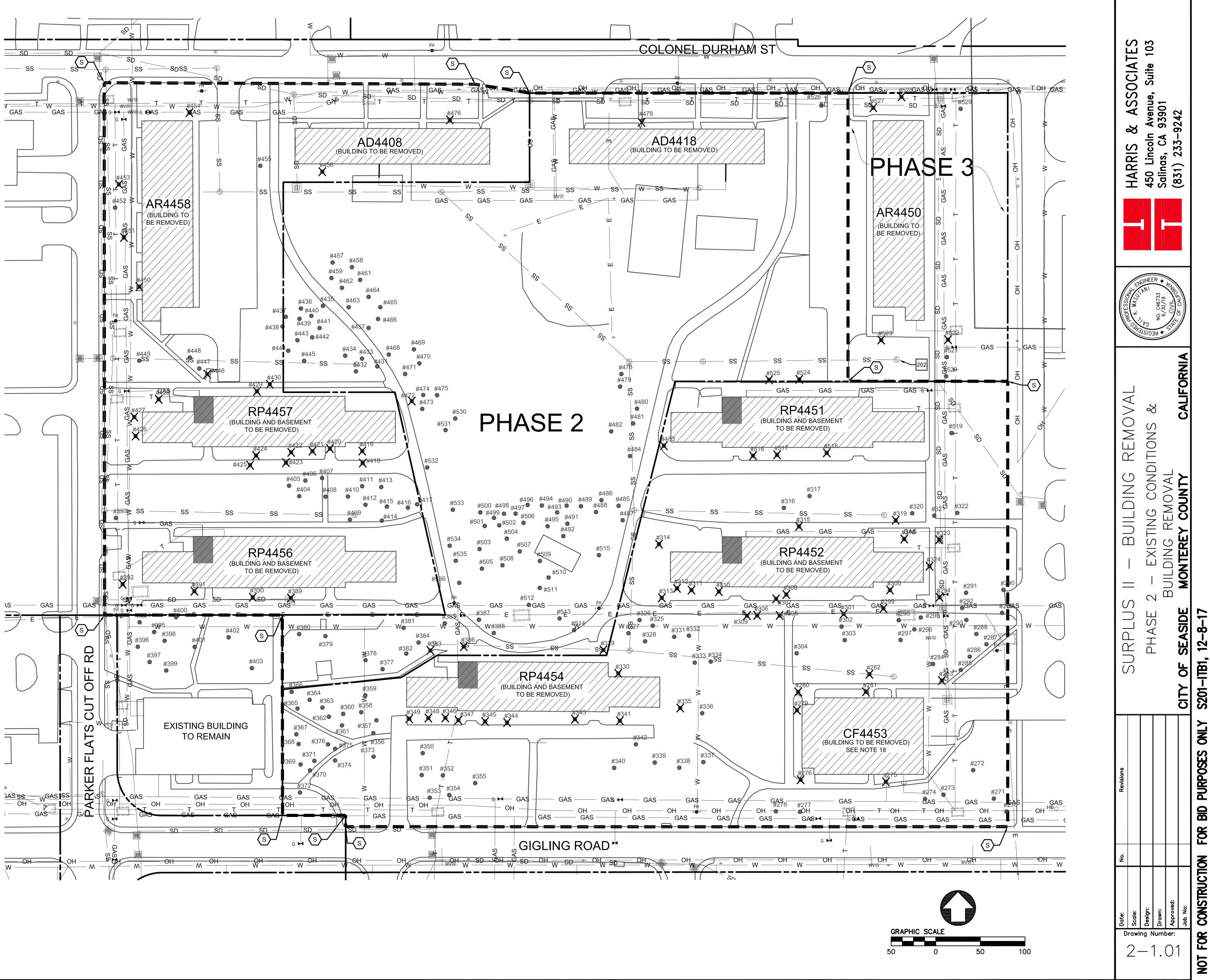


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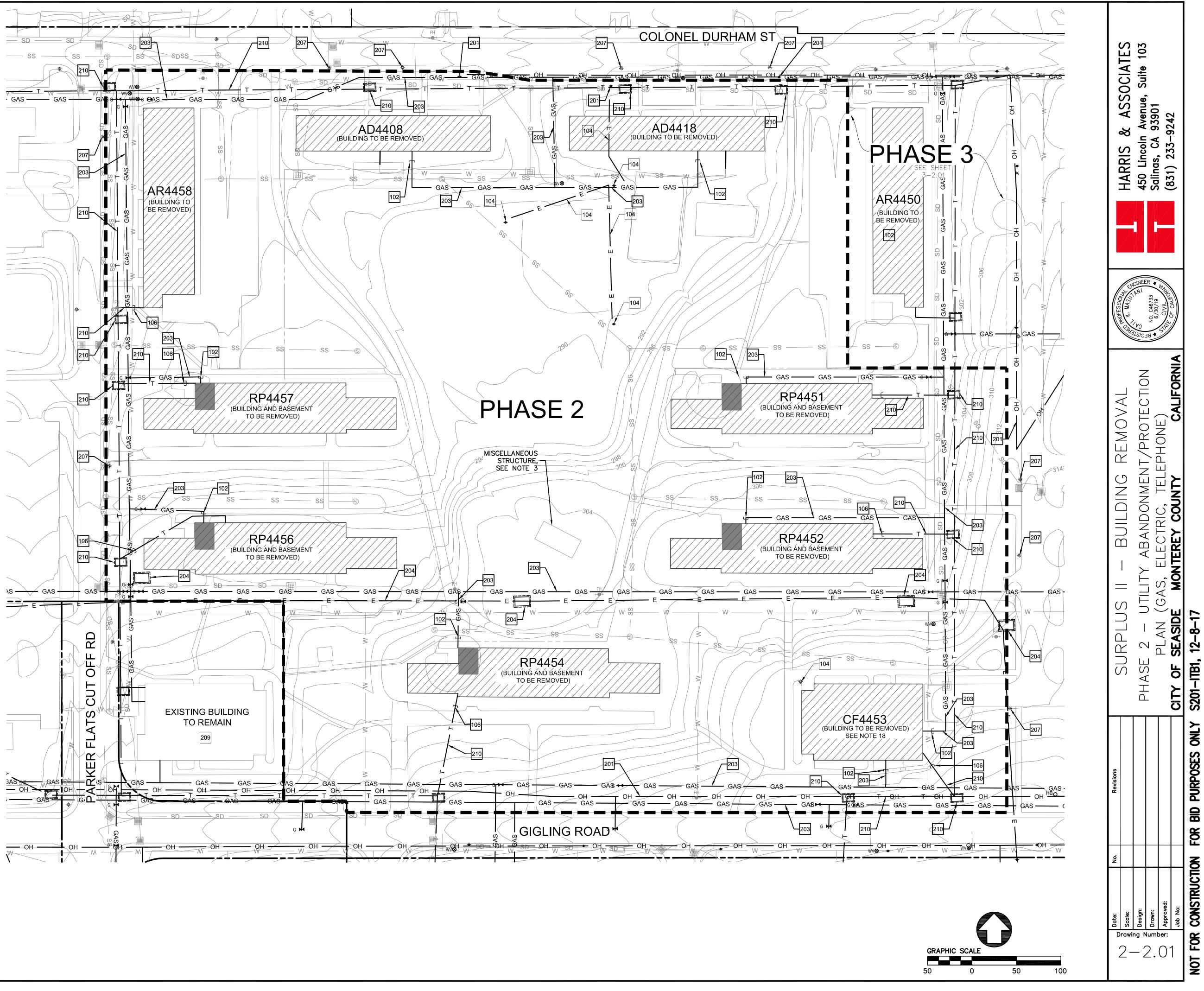






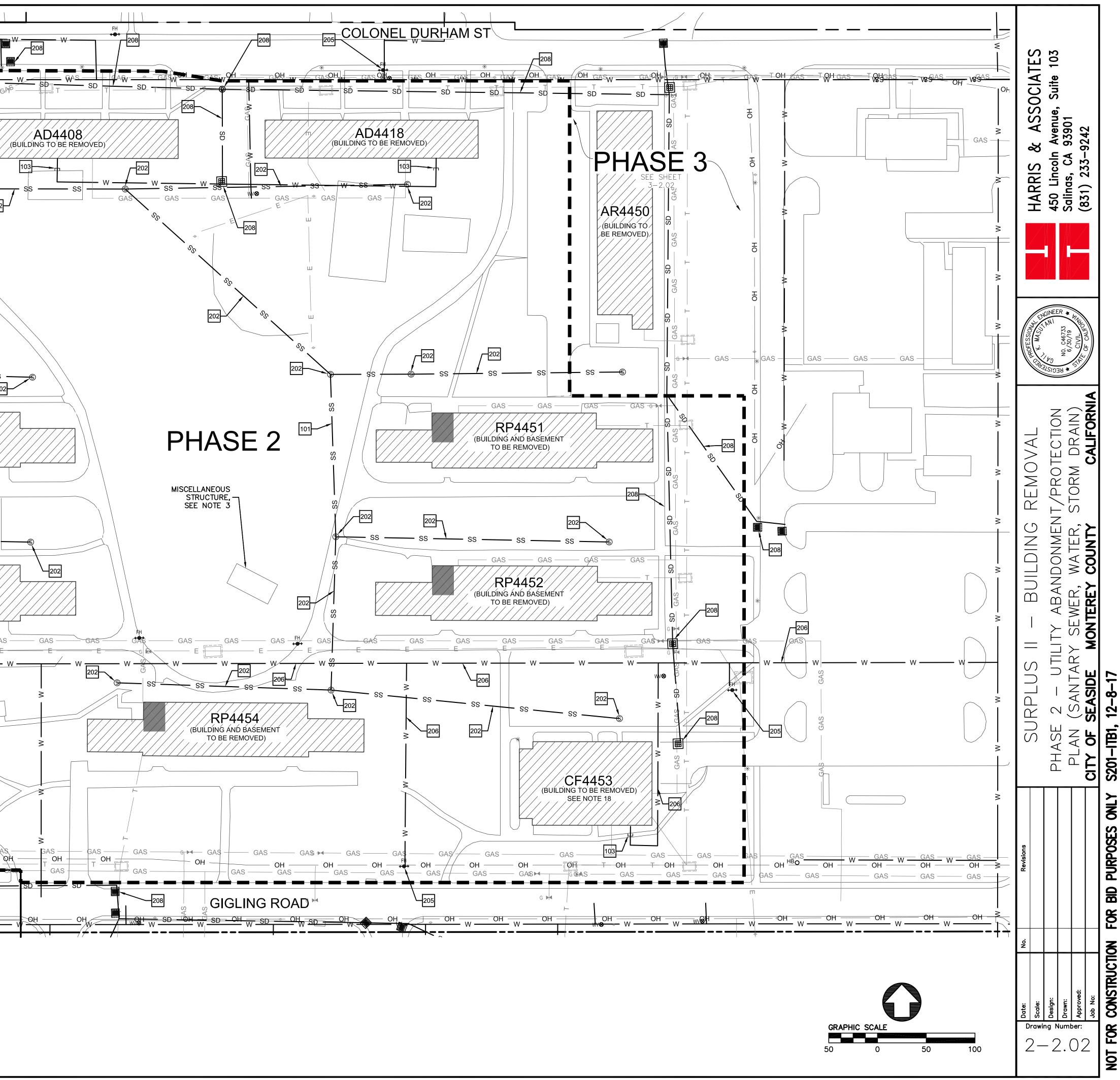
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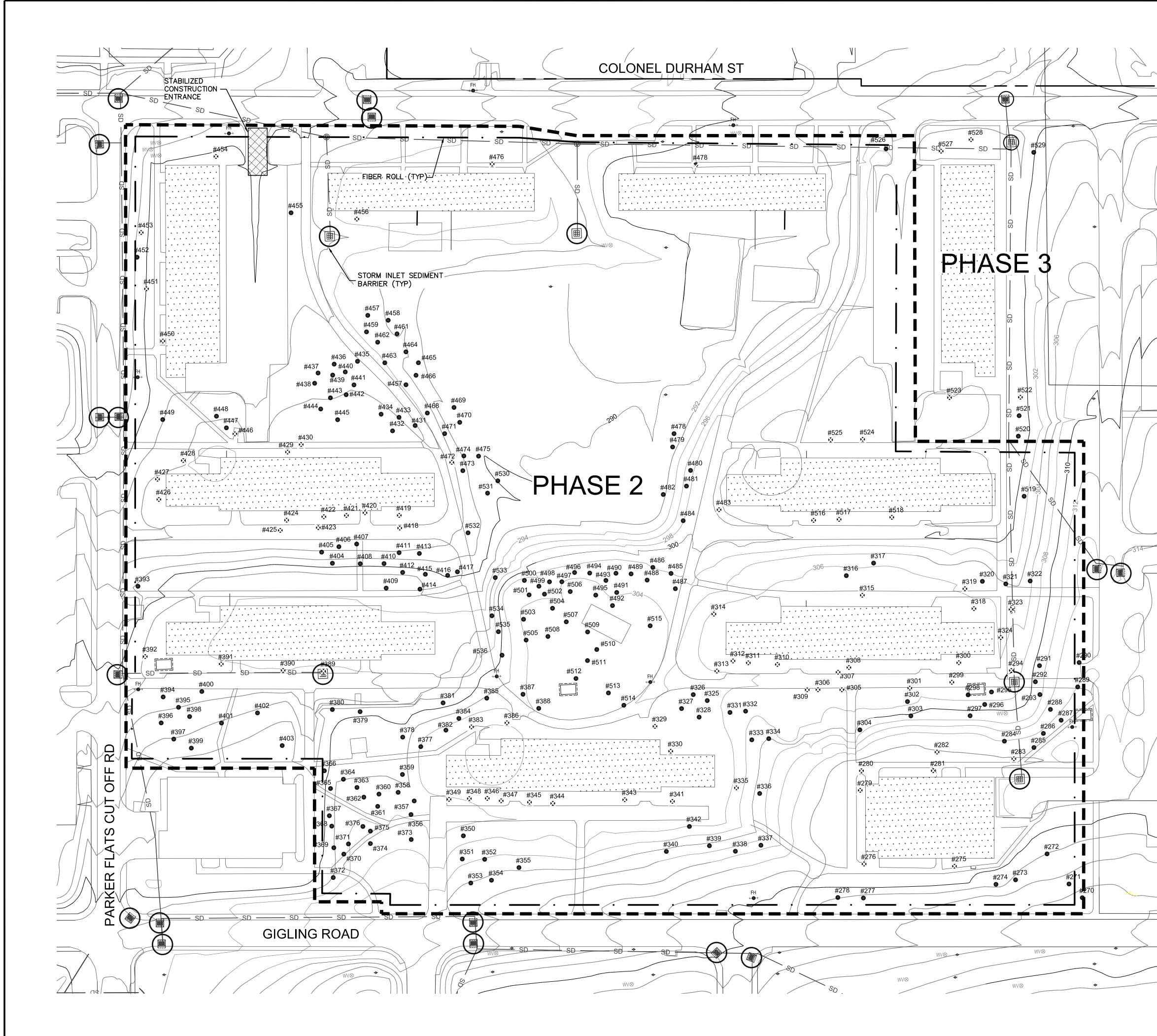
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210 PROTECT EXISTING TELECOM LINE AND STRUCTURES

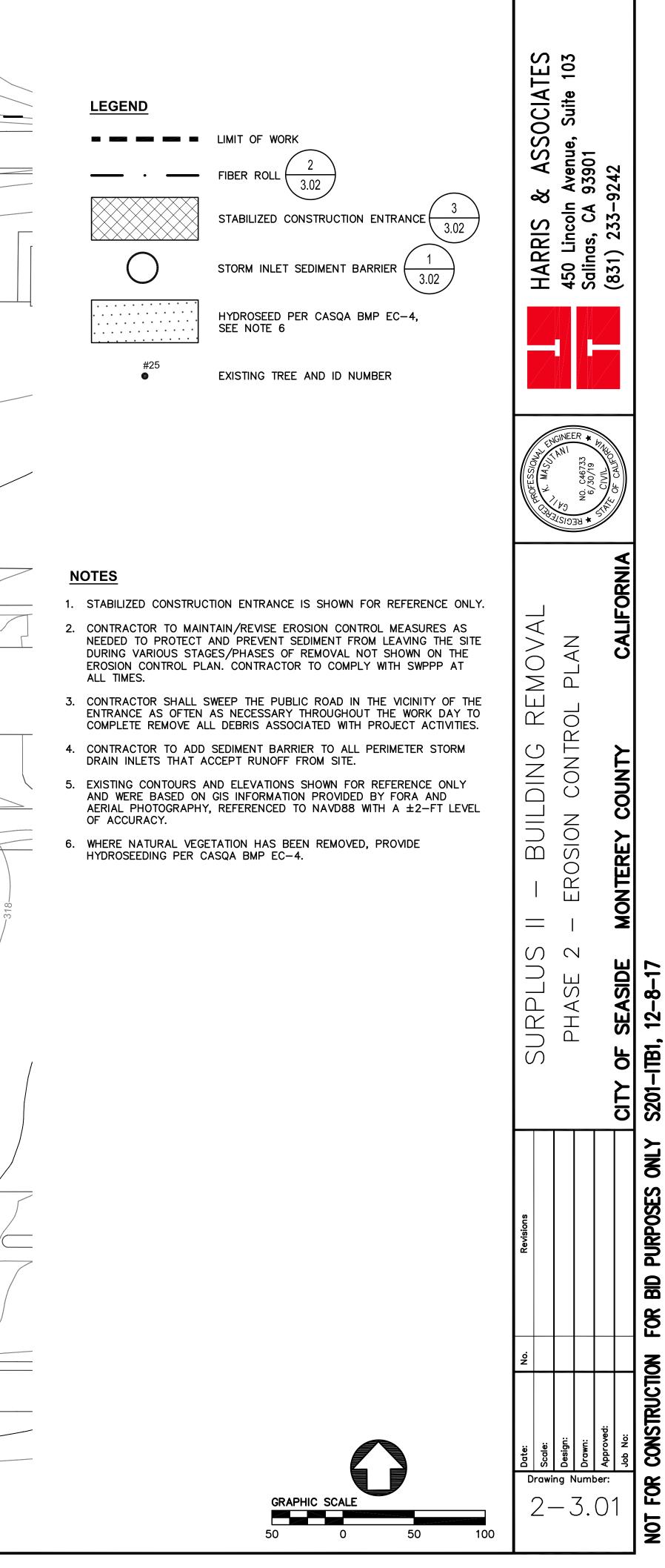


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└──┘ FOR FUTURE REUSE OR REMOVED FROM SITE. <u>PROTECT:</u>	2		
202 PROTECT EXISTING SANITARY SEWER LINE AND STRUCTURES		(BUILDING AND BASEMENT TO BE REMOVED)	
205 PROTECT EXISTING FIRE HYDRANT			
206 PROTECT EXISTING WATER LINE AND ASSOCIATED APPARATUS	202	A CARE A)
208 PROTECT EXISTING STORM DRAIN LINE AND STRUCTURES SEE EROSION CONTROL PLAN FOR MORE INFORMATION			
209 PROTECT EXISTING BUILDING	202 <u>MH</u>		
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	206		
		(BUILDING AND BASEMENT TO BE REMOVED)	
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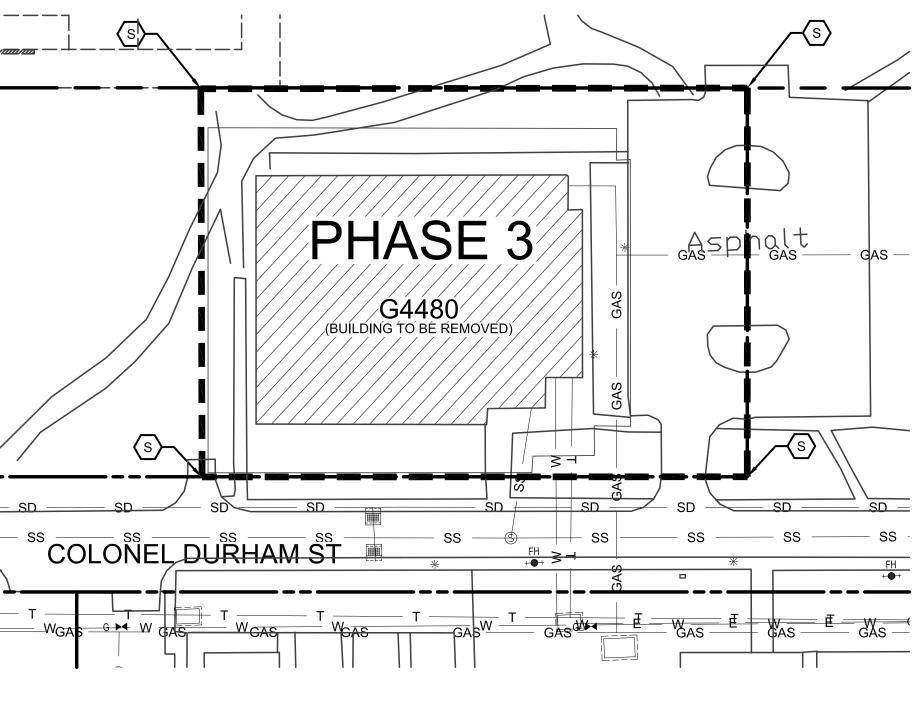


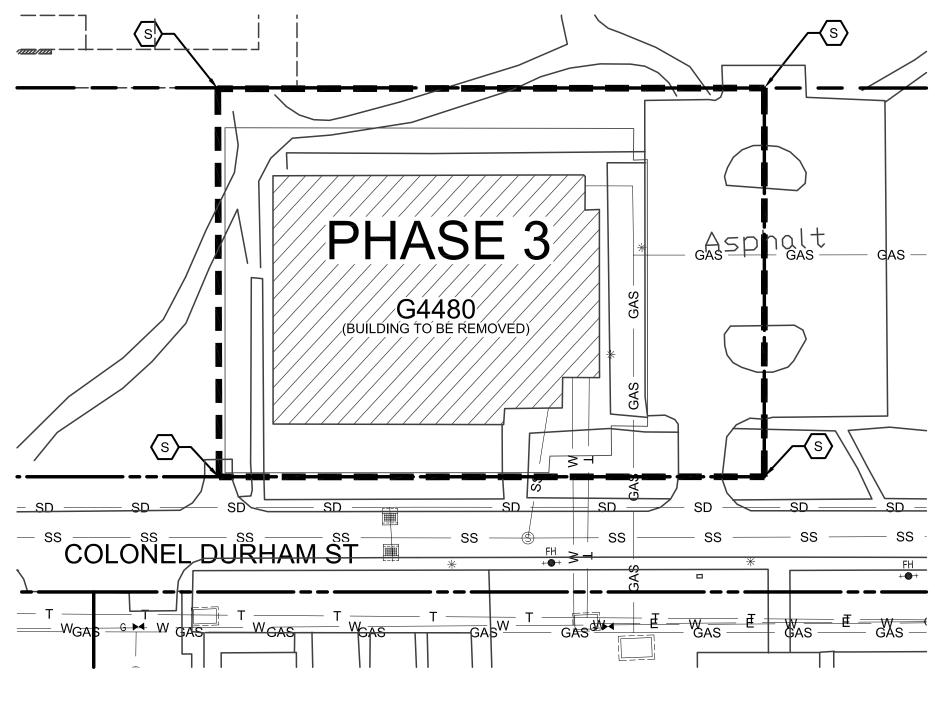


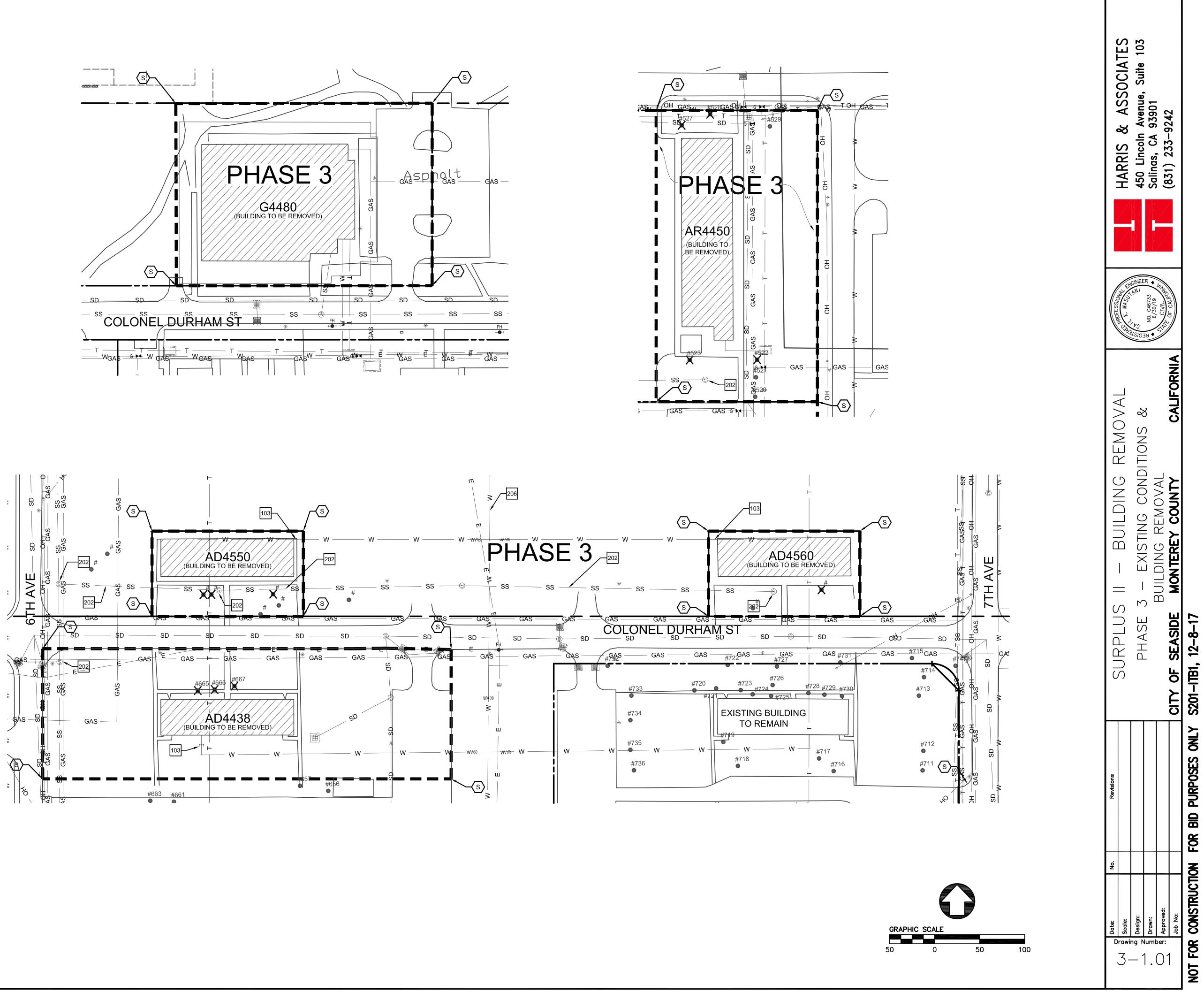
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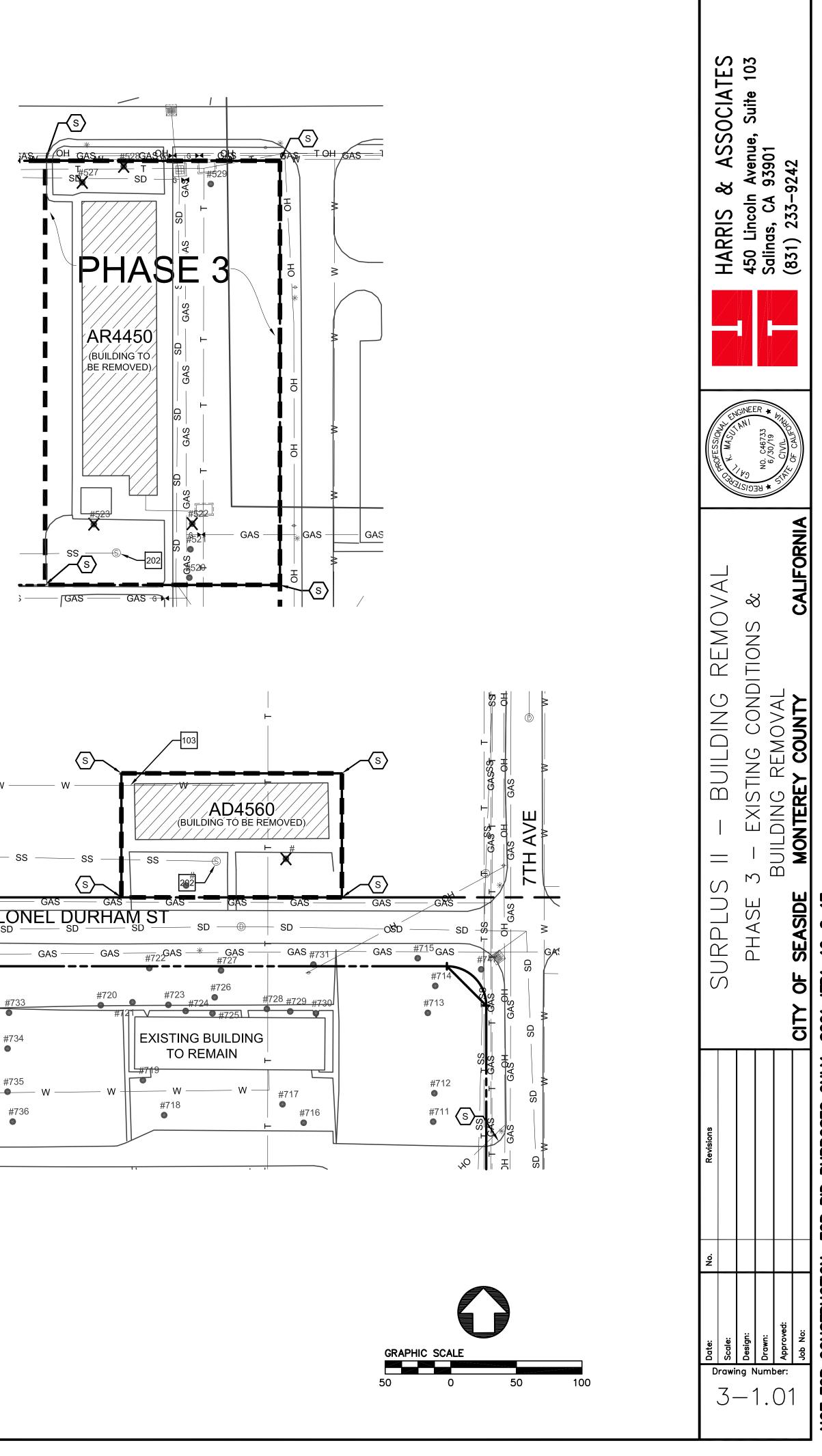
NOTE

REFER TO SHEET 1.01 FOR EXISTING CONDITIONS AND BUILDING REMOVAL, AND SHEETS 2.01 AND 2.02 FOR UTILITY ABANDONMENT/PROTECTION.







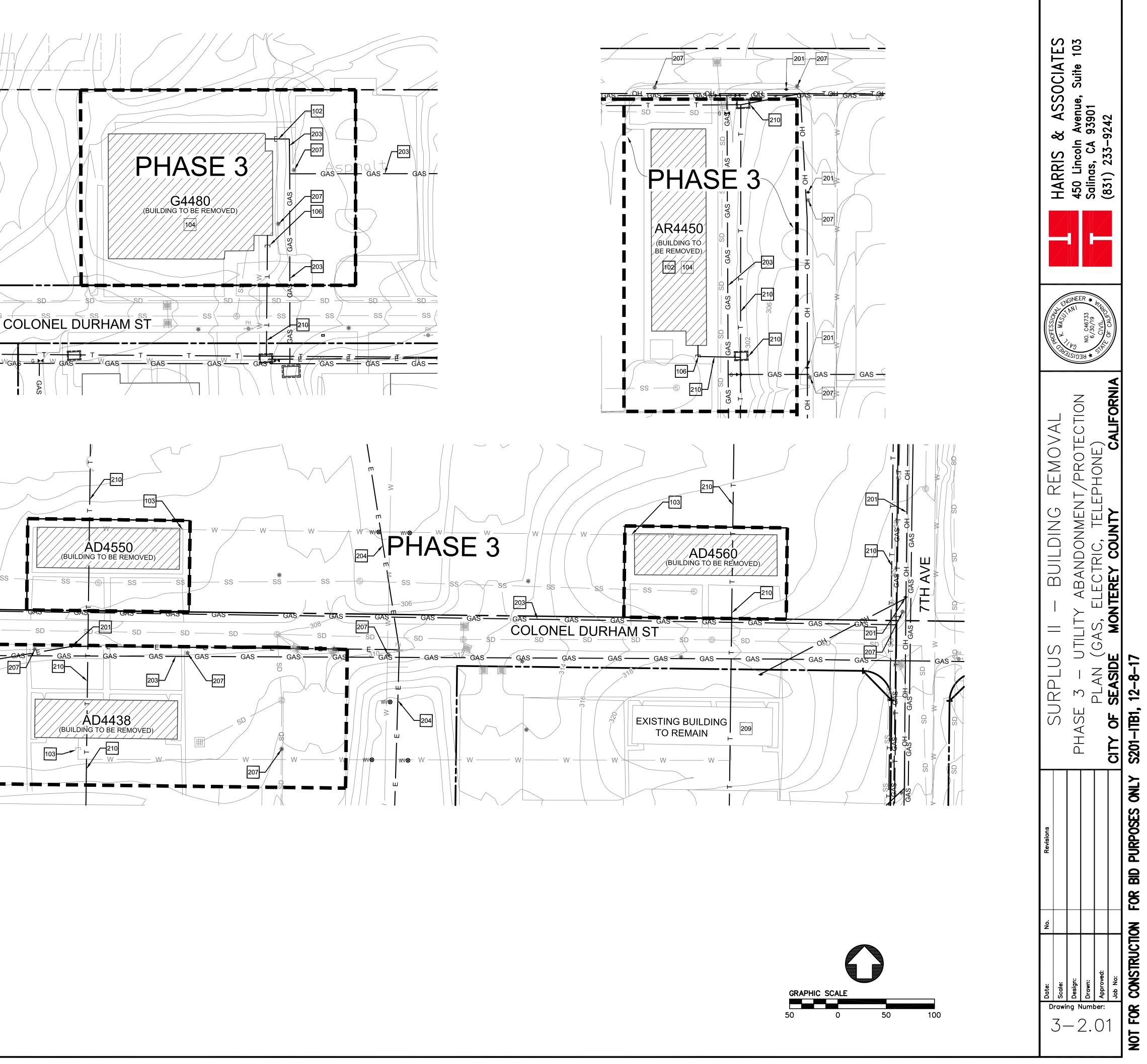


KEYNOTES (SEE NOTE 12 & 13) REMOVE:
102 CAP AND REMOVE EXISTING GAS LATERAL AND STRUCTURES.
104 CAP AND REMOVE EXISTING ELECTRICAL CONDUIT LATERAL AND STRUCTURES.
106 CAP AND REMOVE EXISTING TELECOM LATERAL AND STRUCTURES.
PROTECT: 201 CAUTION! PROTECT EXISTING OVERHEAD LINES & JOINT POLES
203 PROTECT EXISTING GAS LINE AND VALVES
204 PROTECT EXISTING ELECTRICAL LINE AND STRUCTURES
207 PROTECT EXISTING STREET LIGHT, CONDUIT, AND BOX
209 PROTECT EXISTING BUILDING

210 PROTECT EXISTING TELECOM LINE AND STRUCTURES

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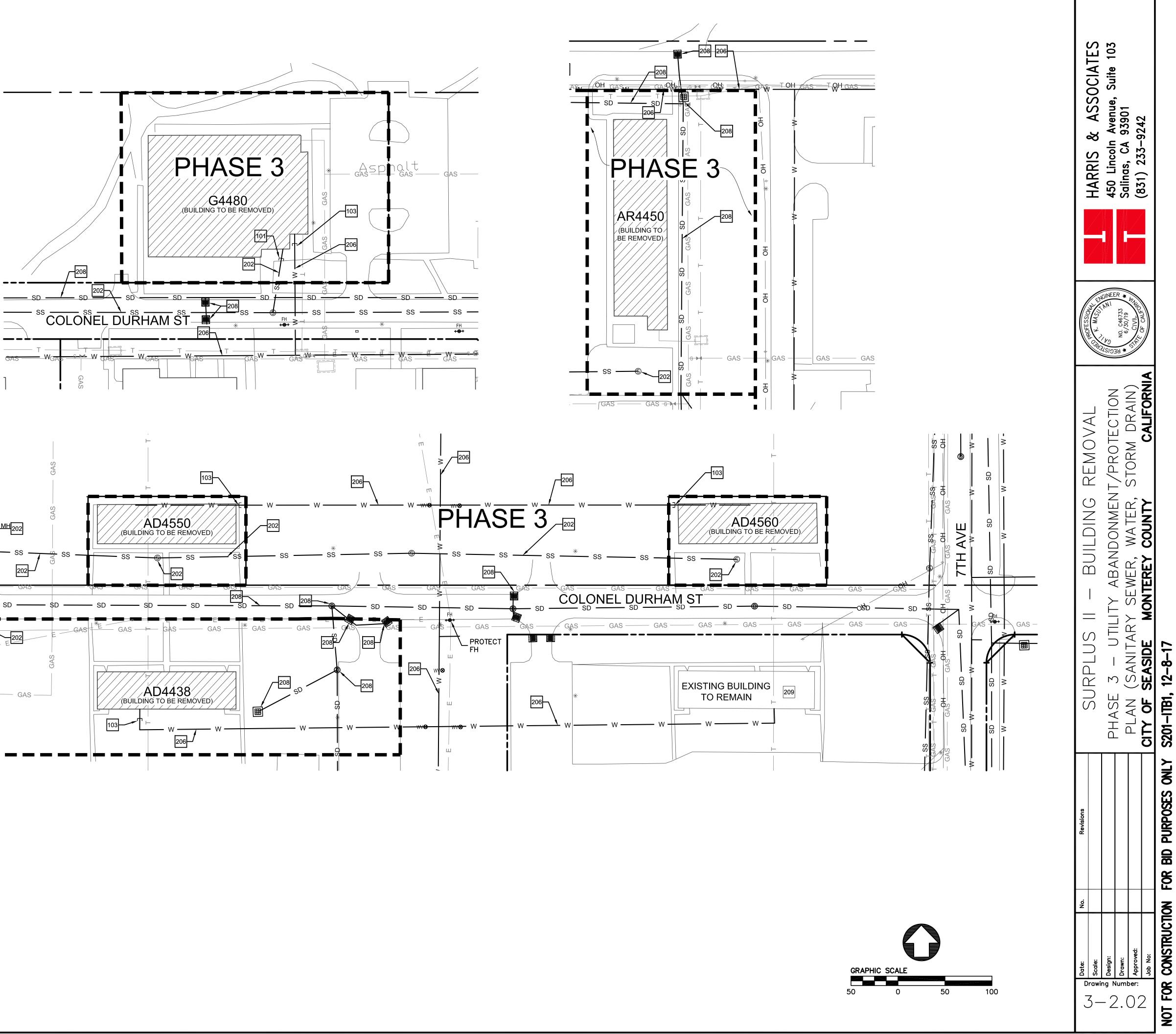
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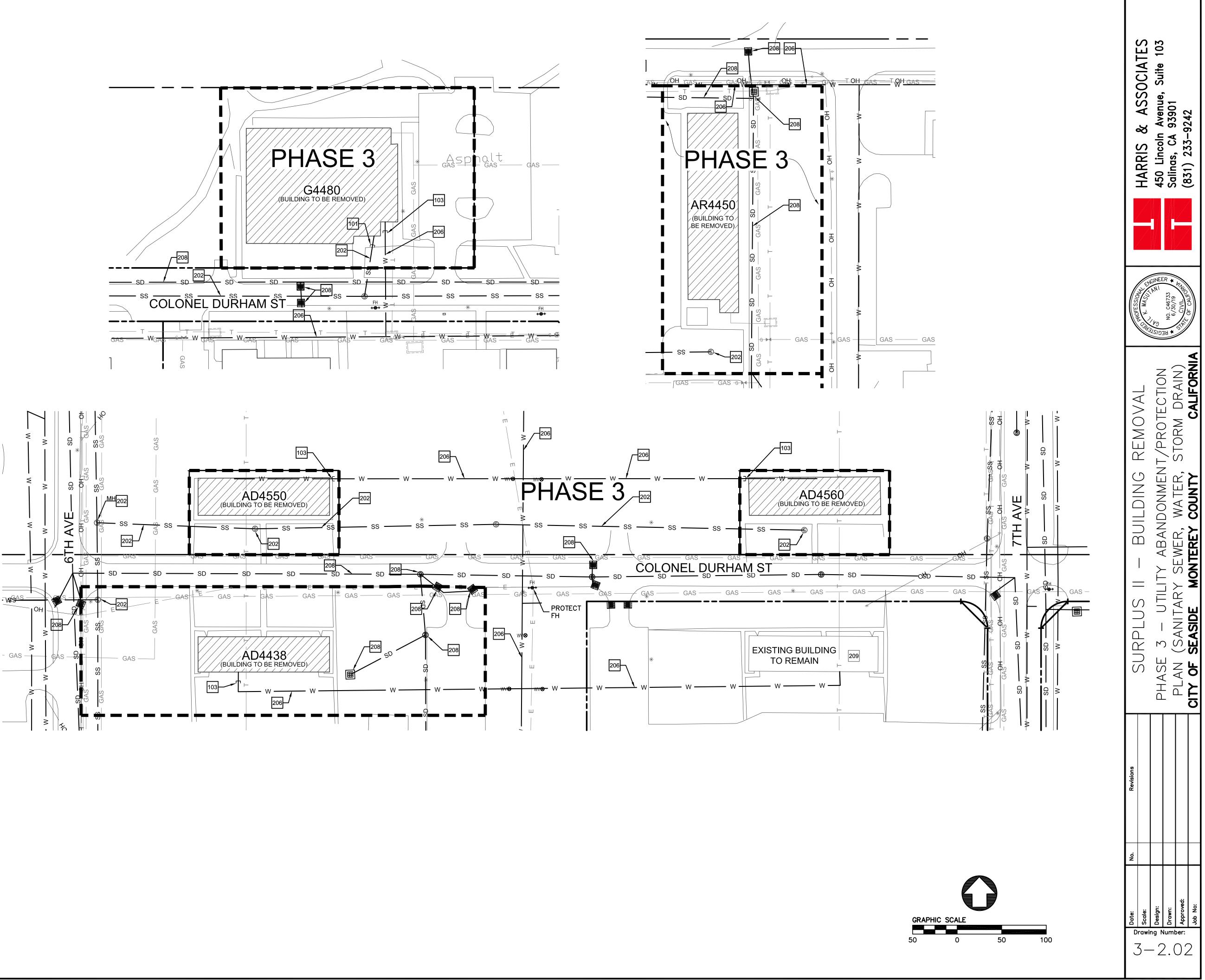


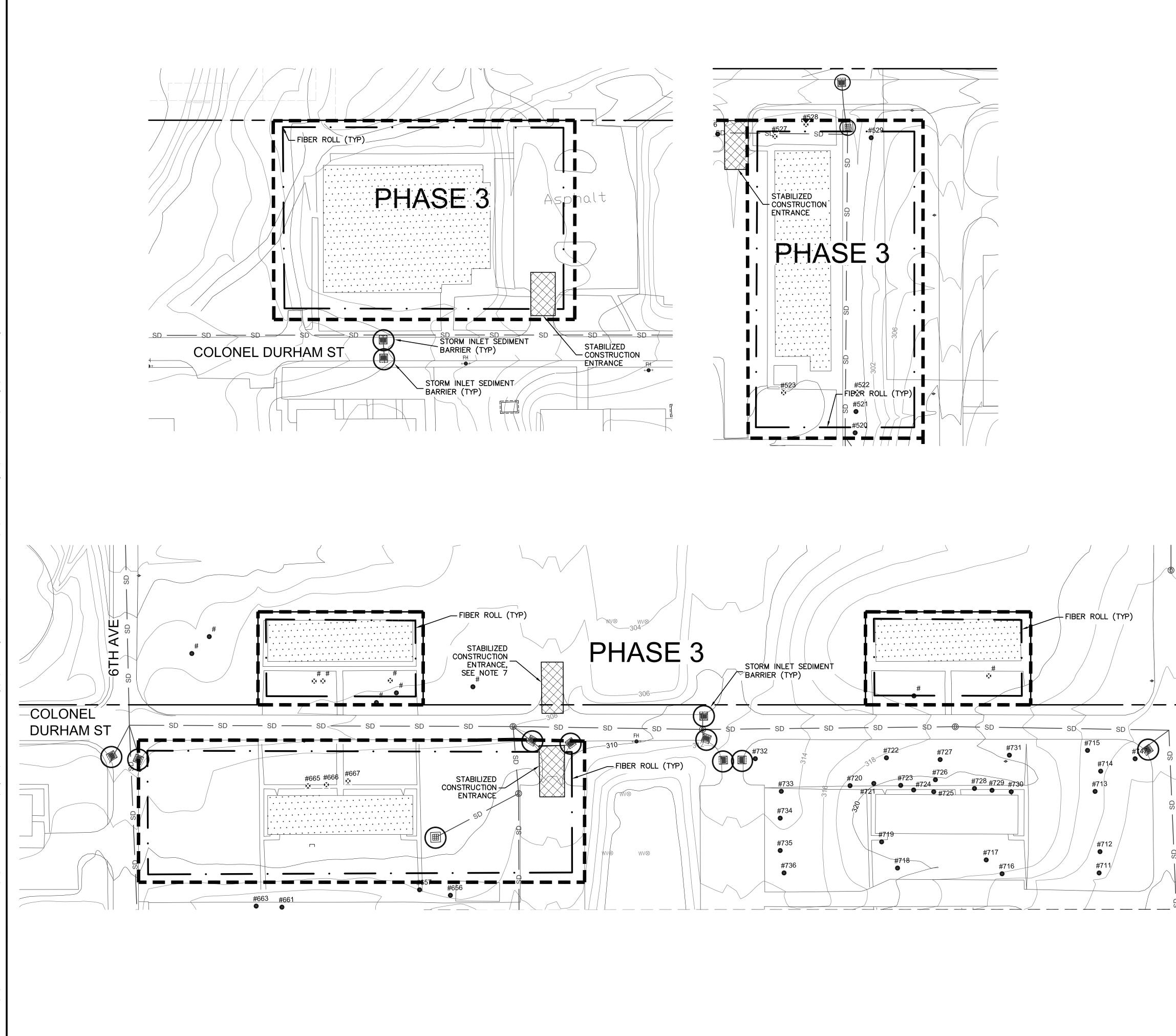
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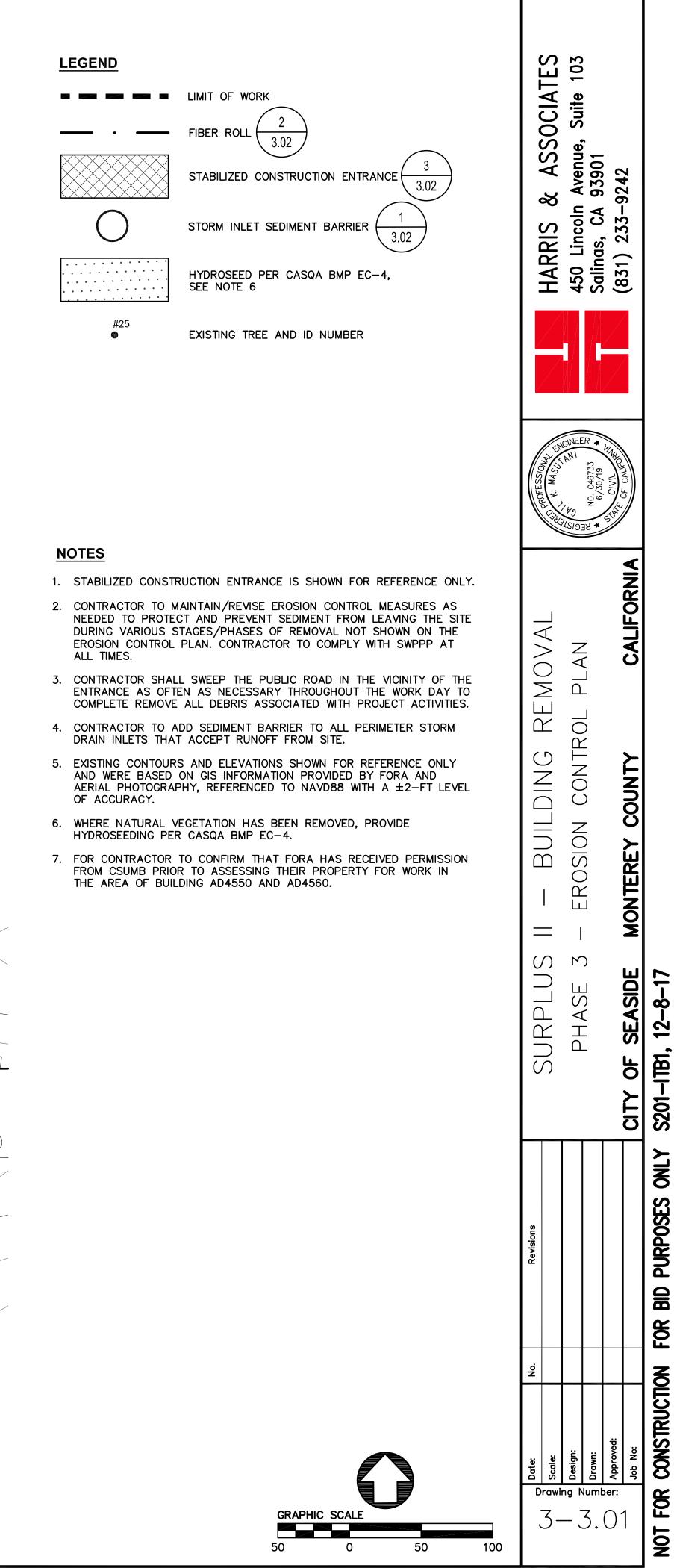
KEYNOTES (SEE NOTE 14) REMOVE:
101 CAP AND REMOVE EXISTING SANITARY SEWER LINES/LATERALS AND STRUCTURES
103 CAP AND REMOVE EXISTING WATER LINE AND ASSOCIATED APPARATUS
EXISTING FIRE HYDRANT. CONTRACTOR TO CONFIRM 105 WITH FORA IF FIRE HYDRANT SHALL BE SALVAGED FOR FUTURE REUSE OR REMOVED FROM SITE.
PROTECT:
202 PROTECT EXISTING SANITARY SEWER LINE AND STRUCTURES
205 PROTECT EXISTING FIRE HYDRANT
206 PROTECT EXISTING WATER LINE AND ASSOCIATED APPARATUS
208 PROTECT EXISTING STORM DRAIN LINE AND STRUCTURES SEE EROSION CONTROL PLAN FOR MORE INFORMATION

209 PROTECT EXISTING BUILDING





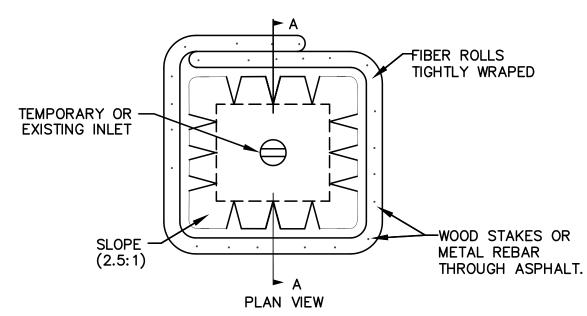




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<u>NOTES:</u> 1. USE INSERTS AT ALL INLETS.

INSERTS TO BE INSPECTED AND CLEANED WEEKLY AND AFTER EVERY RAIN EVENT. 2

4. DISPOSE OF TRAPPED SEDIMENT IN ACCORDANCE WITH LOCAL REQUIREMENTS.

3. EMPTY DROP INLET FILTERS WHEN FILTERS APPEAR TO BE HALF FULL.

5. PLACE FIBER ROLLS AROUND THE INLET CONSISTENT WITH BASIN SEDIMENT BARRIER DETAIL ON THIS SHEET. USE REED

- & GRAHAM, INC. GEOSYNTHETICS STRAW WATTLE FIBER ROLL (COMES IN 9" X 25' ROLLS) OR EQUIVALENT. 6. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH, 3"- 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
- 7. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO
- PREVENT RUNOFF FROM BY-PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A
- TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.
- 8. SEDIMENT BASIN PER BMP SE-2
 - DROP INLET SEDIMENT BARRIER NTS —

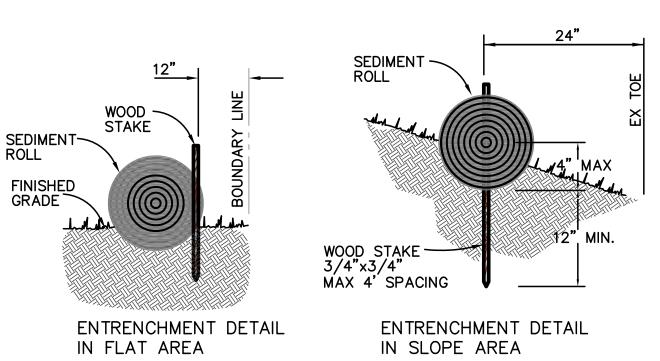
PROJECT SITE	60' MIN.	r- Existin	
	2" TO 3" COARSE AGGREGATE		
	8" MIN. –		

- 1. THE LOCATIONS SHOWN ARE FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING STABILIZED CONSTRUCTION ENTRANCES AS CONSTRUCTION PHASES DICTATE. AS AN OPTION, CONTRACTOR MAY USE WHEEL WASHERS. IF WHEEL WASHING IS USED, ALL WATER MUST BE EITHER RECYCLED, INFILTRATED OR OTHERWISE USED ON-SITE. ALL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED FOR REDUCING THE AMOUNT OF MUD THAT IS TRACKED FROM THE SITE TO THE STORM DRAIN SYSTEM. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USE TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
- 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE THROUGH USE OF INLET PROTECTION (E.G. SAND BAGS OR OTHER APPROVED METHODS).
- 3. THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 2" TO 3" COARSE AGGREGATE.
- 4. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 8".

<u>NOTES</u>

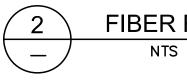
5. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS (12' MIN). 6. THE LENGTH OF THE PAD SHALL BE AS REQUIRED, BUT NOT LESS THAN 60'.

> STABILIZED CONSTRUCTION ENTRANCE NTS



INSTALLATION PROCEDURE

- NETTING. THEY ARE APPROX. 8" DIAMETER. 2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 2"-4" DEEP,
- SECURELY TO PROVIDE A TIGHT JOINT, NOT OVERLAPPED. 3. FIBER ROLL BARRIER - FIBER ROLL BARRIERS SHALL BE PROVIDED AS REQUIRED BY THE CONSTRUCTION GENERAL CONNECTED BY WRAPPING ENDS WITH MINIMUM 18-INCH OVERLAP.



NG ROAD

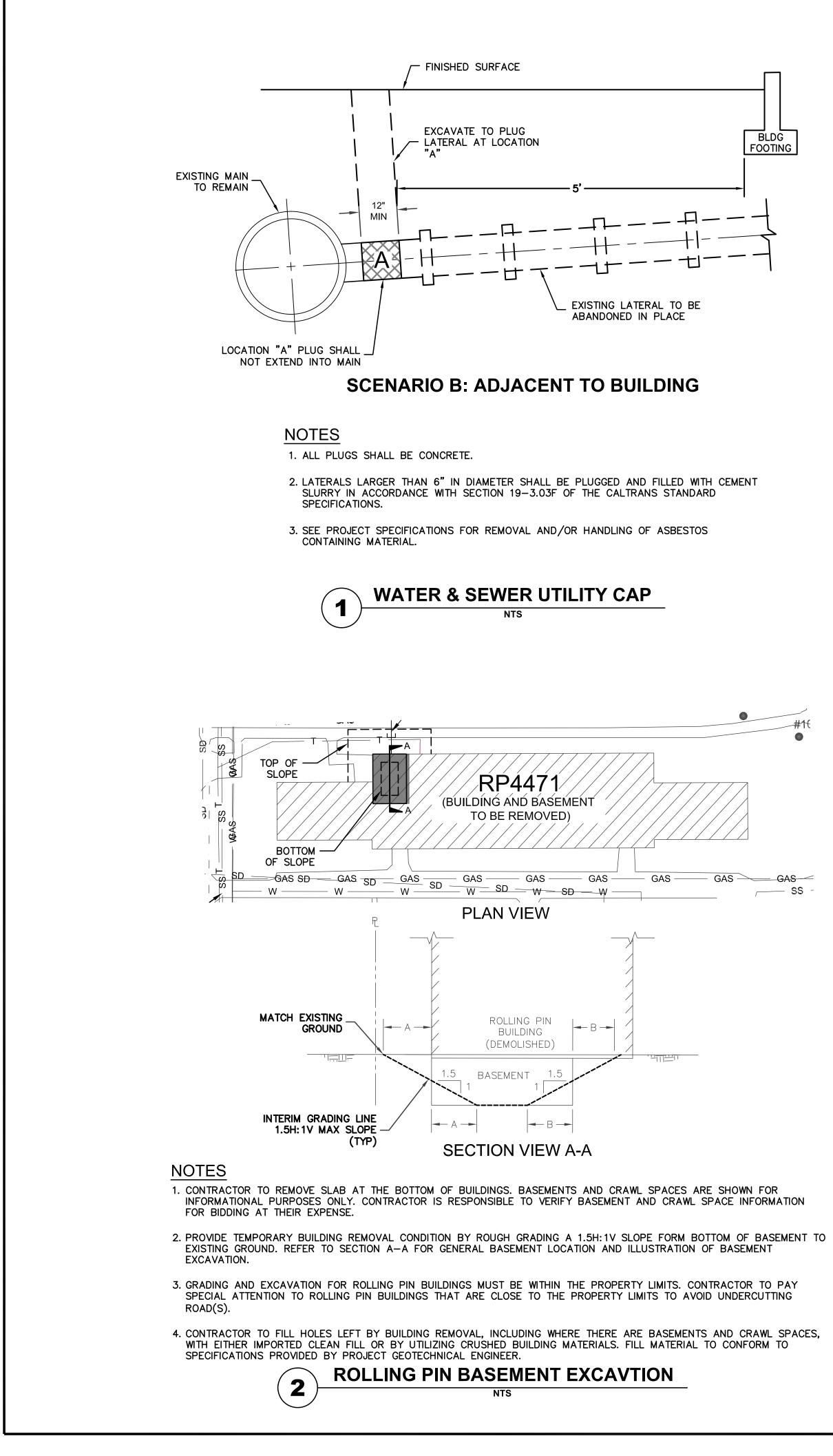
1. FIBER ROLLS ARE TUBES MADE FROM POROUS BIODEGRADABLE FIBER STUFFED IN A PHOTO-DEGRADABLE OPEN WEAVE

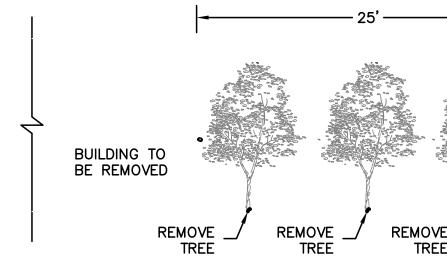
DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL. ROLLS SHOULD BE ABUTTED

PERMIT. AT A MINIMUM, FIBER ROLLS SHALL BE PROVIDED (1) ON DISTURBED SLOPES AND (2) PERPENDICULAR TO ALL CONCENTRATED FLOW PATHS. ON EMBANKMENTS, FIBER ROLL BARRIERS SHALL BE PLACED ON CONTOUR WITH AN ELEVATION DEVIATION OF NO MORE THAN 2 INCHES EXCEPT AT END TERMINATION POINTS. END TERMINATIONS SHALL BE AT LEAST 6-INCHES HIGHER IN ELEVATION THAN THE REMAINING FIBER ROLL WHERE FEASIBLE. FIBER ROLLS SHALL BE

FIBER ROLL

ASSOCIATES venue, Suite 103 venu 3901 **х** HARRIS 450 Linco Salinas, C 2 (831) \triangleleft >REMO \mathcal{O} Ā \bigcirc Ш Z O \square \bigcirc ЦЦ \square NO \odot \bigcirc — \mathcal{O} \bigcirc \bigcirc \supset Ц \square \sim \simeq Ê \bigcirc <u>ତା</u> ଅ Drawing Number: 3.02 \mathbf{H} Ö





NOTES

- 1. TREE LOCATIONS ARE APPROXIMATE. CONTR REMOVE TREES AND STUMPS WITHIN 25-F1 OTHER TREES TO REMAIN UNLESS OTHERWI BUILDING REMOVAL TREE SURVEY" BY FRAN ADDITIONAL INFORMATION.
- 2. CONTRACTOR TO LIMB ALL TREES TO REMA FEET ABOVE TREE BASE.
- 3. CONTRACTOR TO LIMB ALL TREES TO REMA FEET ABOVE TREE BASE. REMOVE TREES UI 4-INCHES IN DIAMETER AT 5-FT ABOVE GF



		HAKKIS & ASSUCIALES	450 Lincoln Avenue, Suite 103	Salinas, CA 93901	(831) 233–9242	
	COFESSION.	Contraction of the second seco	ANI ANI LSIDE	₩ NO. C46733 ₩ 6/30/19	22 CIVIL OR 1)
			CONSTRUCTION DETAILS			MUNIERET COUNIT CALIFURNIA
EXISTING TREE TO REMAIN LIMIT OF WORK TRIM EXISTING TREE BRANCHES, SEE NOTE 2			CONS			CIT OF SEASIDE N
TRACTOR TO FIELD VERIFY LOCATION OF AND FT OF BUILDINGS DESIGNATED FOR REMOVAL. ALL WISE NOTED. REFER TO "FORT ORD SURPLUS	Revisions					
ANK ONO, CERTIFIED ARBORIST #536, FOR IAIN, WITHIN LIMIT OF WORK, FROM GROUND TO NINE	No.					
IAIN, WITHIN LIMIT OF WORK, FROM GROUND TO NINE UNDER 9—FT IN HEIGHT AND SMALLER THAN GROUND SURFACE.						1
REMOVAL NTS	Date:	rawir	ng N		dd dd er:	Job No:

2 **B** S201 ONLY PURPOSES B Fg CONSTRUCTION FOR Not

S201-ITB2 Volume 2

SECTION	DIVISION 01 – GENERAL REQUIREMENTS
01 14 00	WORK RESTRICTIONS
01 15 10	CONSTRUCTION AND DEMOLITION RECYCLING
01 31 13.1	REQUESTS FOR INTERPRETATION (RFI)
01 31 20	PROJECT MEETINGS
01 33 00	SUBMITTAL PROCEDURES
01 33 50	SPECIAL PROCEDURES
01 41 00	REGULATORY REQUIREMENTS
01 42 00	REFERENCE STANDARDS
01 45 00	QUALITY CONTROL
01 45 80	TESTING LABORATORY SERVICES
01 51 00	TEMPORARY UTILITIES
01 52 00	CONSTRUCTION FACILITIES
01 52 50	CONSTRUCTION STAGING AREAS
01 54 00	CONSTRUCTION AIDS
01 54 10	SECURITY
01 55 00	VEHICULAR ACCESS AND PARKING
01 56 00	TEMPORARY BARRIERS AND ENCLOSURES
01 56 80	TREE AND PLANT PROTECTION
01 57 00	TEMPORARY CONTROLS
01 61 00	BASIC PRODUCT REQUIREMENTS
01 63 00	PRODUCT SUBSTITUTION PROCEDURES
01 65 00	PRODUCT DELIVERY REQUIREMENTS
01 66 00	PRODUCT STORAGE AND HANDLING REQUIREMENTS
01 72 00	PREPARATION REQUIREMENTS
01 73 00	EXECUTION REQUIREMENTS
01 73 20	CUTTING AND PATCHING REQUIREMENTS
01 74 00	CLEANING REQUIREMENTS
01 78 90	PROJECT RECORD DOCUMENTS

DIVISION 02 – EXISTING CONDITIONS

02 41 16 DEMOLITION AND REMOVAL

DIVISION 03 – CONCRETE & SITE

- 31 14 00 STOCKPILING
- 31 40 00 SHEETING, SHORING, AND BRACING

S201-ITB2, Volume 2 - SECTION 01 11 00 – SUMMARY OF WORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 WORK INCLUDED IN THE CONTRACT

- A. Work Included in the Contract, includes, but is not limited to the following: In general, work will consist of the demolition of ten (10) three story, concrete, surplus military structures (nicknamed Rolling pins) one (1) Cafeteria, one (1) Gym with ancillary building, two (2) Armories, and two (2) Administrative buildings located within the area called Surplus II.
 - 1. Site preparation.
 - 2. Site utilities.
 - 3. Site fencing and site appurtenances.
 - 4. Environmental protection.
 - 5. Coordination of work being performed by others under separate contracts with FORA, described in Article below titled "CONCURRENT WORK UNDER SEPARATE CONTRACTS."

1.03 CONCURRENT WORK UNDER SEPARATE CONTRACTS

- A. Work Under Separate Contracts: FORA has S201-ITB1 Surplus II Hazardous Material Removal for the building that are to be demolished under this Contract. The Contractor shall coordinate with the Hazardous Material Removal Contactor for schedule and work areas.
- B. Relationship to Work Under the Contract: Work under the Contract shall include all provisions necessary to make such concurrent work under separate contracts complete in every respect and fully functional, including field finishing. Provide necessary backing, supports, piping, conduit, conductors and other such provisions from point of service to point of connection, as shown on Drawings and specified herein.
- C. Documents for Work Under Separate Contracts: FORA Construction Manager will make available, in a timely manner, drawings and specifications of work under separate contracts for coordination and further description of that work.
 - 1. If available, such information will include drawings, specifications, product data, lists and construction schedules for such work.
 - 2. Information concerning work under separate contracts or directly by University will be provided for convenience only and shall not to be considered Contract Documents.
- D. Permits, Notices and Fees for Work under Separate Contracts: Notices required by and approvals required of, authorities having jurisdiction over work under separate contracts and related fees, will be solely the responsibility of FORA.

1.04 PROTECT THE WORK FROM VANDALISM

- A. During Work Hours. Protect the Work from theft, vandalism, and unauthorized entry. The Contractor shall have the sole responsibility for job site security.
- B. During Off-Work Hours. During all hours that Work is not being prosecuted, furnish such watchman's services as Contractor may consider necessary to safeguard materials and equipment in storage on the Project site, including Work in place and in process of fabrication, against theft, acts of malicious mischief, vandalism, and other losses or damages.

1.05 PERMITS, LICENSES AND FEES

A. Licenses: Contractor shall obtain and pay all licenses associated with construction activities, such as business licenses, contractors' licenses and vehicle and equipment licenses. All costs for licenses shall be included in the Contract Amount.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 11 00

S201-ITB2, Volume 2 - SECTION 01 14 00 – WORK RESTRICTIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 CONTRACTOR'S USE OF PREMISES AND SITE, GENERAL

B. Contractor's Use of Premises and Site, General: Refer to Article 2 of the Contract Agreement.

1.03 USE OF PREMISES

C. Use of Site: Limit use of premises to work within the limits of Work as indicated in the Drawings. Do not disturb portions of site the Construction site.

Where existing buildings and site areas are outside of the limits of Work, make provisions to continued use by scheduling and sequencing of Work under the Contract. Make provisions for temporary barriers, enclosures, covers, directional signage and other construction facilities and temporary controls to enable continuing use.

1.04 CONTRACTOR'S USE OF PROJECT AREA

- D. Location of Work: The Work shall be accomplished within the limits of Work as indicated on Drawings. Use of other areas shall be subject to approval by FORA Construction Manager.
 - 1. Contractor shall not unreasonably encumber the site with materials or equipment.
 - 2. Contractor shall assume full responsibility for protection and safekeeping of products stored on the premises.
 - 3. Contractor shall move any stored products which interfere with operations of FORA or contractors performing work under separate contracts for FORA.
 - 4. Temporary closures or restrictions of use of public thoroughfares, necessary to accomplish the Work, shall be made only as approved in advance by public safety and parking authorities having jurisdiction.
- E. Contractor's Use of the Project Area: Unless otherwise specified or indicated on the Drawings, during the construction period the Contractor shall have full use of the area delineated by the limits of Work as indicated on the Drawings. FORA shall have the right to perform construction operations with its own forces or to employ separate contractors on portions of the Project in accordance with the Article 5 of the Contract Agreement.
- C. Protection of Existing Improvements and Facilities: Contractor shall protect property adjacent to the Project Area and all existing improvements and facilities within the Project Area, including paving and landscaping indicated to remain.
 - 1. All existing improvements and facilities, except those specifically indicated for removal or reconstruction, shall be protected with temporary barriers, enclosures and passageways.

Refer to additional requirements specified in Section 01 56 00 - Temporary Barriers and Enclosures.

- 2. After completion of Work, existing improvements and facilities shall be restored to original condition and location. Project Area shall be cleaned and restored to presentable condition, equivalent to or better than the condition prior to start of Work.
- 3. Should existing improvements and facilities be damaged or soiled beyond renovation or repair, new products shall be provided by Contractor equivalent to existing products, as directed by the FORA Construction Manager.
- D. Project Area Access: The Contractor is allowed to use City streets to access Project Site. Do not restrict access to adjacent facilities and do not restrict access for those performing work under separate contracts for FORA.
 - 1. Access to and egress from Project Site shall be in strict conformance to prearranged routes approved by FORA Construction Manager, with the understanding that curtailment of construction traffic or alternate access routes may be required on short notice if because of excessive noise or problems of safety.
 - 2. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to service and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- F. Emergency Access: Provide pathways, drives, gates, directional signage and other provisions as required by authorities having jurisdiction for emergency access to Project Area and adjoining campus facilities.
- G. Emergency Egress: Maintain all pathways, drives, gates, and other means of egress during construction as required by public safety authorities having jurisdiction.

1.05 TIME RESTRICTIONS

- A. Hours of operation are stated in Article 2.24 of the Contract Agreement.
- B. Utility Outages and Shutdown: Schedule utility outages and shutdowns to nights, weekends, holidays or times and dates acceptable to, and approved by, FORA Construction Manager.

Restrictions on Interrupting utilities or operations:

- 1. The Contractor must maintain all utilities affected by the construction of this project in an operable and functioning condition (including data, voice, video and irrigation systems) to all buildings, facilities, and services at the Project Site at no additional cost to FORA.
- 2. If any utility affecting any occupied facility is interrupted, the Contractor must provide a temporary connection to the affected utility / facility / area within the noted time frame with due diligence, at no additional cost to FORA. If the Contractor does not perform repairs with due diligence within the time frames noted below, the FORA shall enforce the terms and conditions of the Contract Agreement for Contractor's failure to perform work in a timely manner.

Fire Alarm System	Within 4 hours of occurrence
Security Alarm System	Within 4 hours of occurrence
Radio Communication or 911 System	Within 4 hours of occurrence
Telephone / Data Communications System, including payphones, fiber backbone, copper, etc.)	
	Within 4 hours of occurrence
Energy Management Control System	Within 4 hours of occurrence
Exterior Lighting / Street Lighting	Within 4 hours of occurrence
Building Power	Within 4 hours of occurrence
Potable Water	Within 6 hours of occurrence, depending on impact of loss of water
Gas	Within 4 hours of occurrence
Sewer	Within 24 hours of occurrence
Storm Drain	Within 48 hours of occurrence
Irrigation, including reclaimed water	Within 72 hours of occurrence - provide alternate methods of irrigation if needed during outages to prevent damage to landscape

1.06 NOISE AND VIBRATION RESTRICTIONS

- C. Noise Restrictions: Minimize noise from construction activities. Limit loud construction activities to times when classes are not in session in adjacent facilities.
- D. Vibration Restrictions: Do not perform activities that cause vibrations in adjacent occupied spaces, including spaces above and below location where Work is performed.

1.07 FORA'S USE OF SITE AND PREMISES

A. FORA Use of Site and Premises: FORA reserves the right to occupy and to place and install equipment in completed or partially completed areas of buildings and site. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED

END OF SECTION 01 14 00

S201-ITB2, Volume 2 - SECTION 01 15 10 – CONSTRUCTION AND DEMOLITION MATERIALS RECYCLING REQUIREMENTS

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes: Requirements and procedures for ensuring optimal diversion of demolition waste materials generated by the Work from landfill disposal within the limits of the Construction Schedule and Contract Sum.
 - 1. FORA has a goal of participating in global sustainability. Will create a non-hazardous material waste recycling plan to maximize waste recycling.
 - 2. Requirements for submittal of Contractor's Construction Waste and Recycling Plan prior to the commencement of the Work.
 - 3. Contractor's quantitative reports for construction waste materials as a condition of approval of the third progress payment.

1.02 DEFINITIONS

- A. Class III Landfill: A landfill that accepts non-hazardous resources such as household, commercial, and industrial waste, resulting from construction, remodeling, repair, and demolition operations. A Class III landfill must have a solid waste facilities permit from the California Integrated Waste Management Board (CIWMB).
- B. Demolition Debris: Building materials and solid waste resulting from cleanup, or demolition operations that are not hazardous as defined in California Code of Regulations, Title 22, Section 66261.3 et seq. This term includes, but is not limited to, asphalt concrete, Portland cement concrete, brick, lumber, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, plastic pipe, and steel. The debris may be commingled with rock, soil, tree stumps, and other vegetative matter resulting from land clearing and landscaping for construction or land development projects.
- C. Construction and Demolition (C&D) Recycling Center. A facility that receives only C&D material that has been separated for reuse prior to receipt, in which the residual (disposed) amount of waste in the material is less than 10% of the amount separated for reuse by weight.
- D. Disposal. Final deposition of construction and demolition or inert debris into land, including stockpiling onto land of construction and demolition debris that has not been sorted for further processing or resale, if such stockpiling is for a period of time greater than 30 days; and construction and demolition debris that has been sorted for further processing or resale, if such stockpiling is for a period of time greater than one year, or stockpiling onto land of inert debris that is for a period of time greater than one year.
- E. Inert Disposal Facility or Inert Waste Landfill: A disposal facility that accepts only inert waste such as soil and rock, fully cured asphalt paving, uncontaminated concrete (including fiberglass or steel reinforcing rods embedded in the concrete), brick, glass, and ceramics, for land disposal.

- F. Mixed Debris: Loads that include commingled recyclable and non-recyclable materials generated at the construction site.
- G. Mixed Debris Recycling Facility: A processing facility that accepts loads of commingled construction and demolition debris for the purpose of recovering re-usable and recyclable materials and disposing the non-recyclable residual materials.
- H. Recycling: The process of sorting, cleansing, treating and reconstituting materials for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating or thermally destroying solid waste.
- I. Reuse. The use, in the same or similar form as it was produced, of a material which might otherwise be discarded.
- J. Separated for Reuse. Materials, including commingled recyclables, that have been separated or kept separate from the solid waste stream for the purpose of additional sorting or processing those materials for reuse or recycling in order to return them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace, and includes materials that have been "source separated."
- K. Solid Waste: All putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. "Solid waste" does not include hazardous waste, radioactive waste, or medical waste as defined or regulated by State law.
- L. Source-Separated: Materials, including commingled recyclables, that have been separated or kept separate from the solid waste stream at the point of generation for the purpose of additional sorting or processing of those materials for reuse or recycling in order to return them to the economic mainstream in the form of raw materials for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace.
- M. Waste Hauler: A company that possesses a valid permit from the local waste management authority to collect and transport solid wastes from individuals or businesses for the purpose of recycling or disposal in the locality.

1.03 SUBMITTALS

- A. Contractor's Construction Waste and Recycling Plan
 - Review Contract Documents and estimate the types and quantities of materials under the Work that are anticipated to be feasible for on-site processing, source separation for re-use or recycling. Indicate the procedures that will be implemented in this program to effect jobsite source separation, such as, identifying a convenient location where dumpsters would be located, putting signage to identify materials to be placed in dumpsters, etc.
 - Prior to commencing the Work, submit Contractor's Construction Waste and Recycling Plan. Submit in format provided (Section 01151A). The Plan must include, but is not limited to the following:

- a. Contractor's name and project identification information;
- b. Procedures to be used;
- c. Materials to be re-used and recycled;
- d. Estimated quantities of materials;
- e. Names and locations of re-use and recycling facilities/sites;
- f. Tonnage calculations that demonstrate how much material the Contractor will re-use and recycle, by weight, of the non-hazardous waste materials generated in the Work.
- 3. Contractor's Construction Waste and Recycling Plan must be approved by FORA Construction Manager prior to the start of Work.
- 4. Contractor's Construction Waste and Recycling Plan will not otherwise relieve the Contractor of responsibility for adequate and continuing control of pollutants and other environmental protection measures.
- B. Contractor's Reuse, Recycling, and Disposal Report

Submit Contractor's Reuse, Recycling, and Disposal Report on the form provided (Section 01151B) with each application for progress payment. Failure to submit the form and its supporting documentation will render the application for progress payment incomplete and delay progress payments. If applicable, include manifests, weight tickets, receipts, and invoices specifically identifying the Project for re-used and recycled materials:

- 1. Reuse of building materials or salvage items on site (i.e. crushed base or red clay brick).
- 2. Salvaging building materials or salvage items at an off-site salvage or reuse center (i.e. lighting, fixtures).
- 3. Recycling source separated materials on site (i.e. crushing asphalt/ concrete for base course, or grinding for mulch).
- 4. Recycling source separated material at an off site recycling center (i.e. scrap metal or green materials).
- 5. Use of material as Alternative Daily Cover (ADC) at landfills.
- 6. Delivery of soils or mixed inerts to an inerta landfill for disposal (inert fill).
- 7. Disposal at a landfill or transfer station (where no recycling takes place).
- 8. Other (describe).

Contractor's Reuse, Recycling, and Disposal Report must quantify all materials generated in the Work, disposed in [Class III] landfills, or diverted from disposal through recycling. Indicate zero (0) if there is no quantity to report for a type of material.

As indicated on the form:

- 1. Report disposal or recycling either in tons or in cubic yards: if scales are available at disposal or recycling facility, report in tons; otherwise, report in cubic yards. Report in units for salvage items when no tonnage or cubic yard measurement is feasible.
- 2. Indicate locations to which materials are delivered for reuse, salvage, recycling, accepted as daily cover, inert backfill, or disposal in landfills or transfer stations.

3. Provide legible copies of weigh tickets, receipts, or invoices that specifically identify the project generating the material. Said documents must be from recyclers and/or disposal site operators that can legally accept the materials for the purpose of re-use, recycling, or disposal.

Indicate project title, project number, progress payment number, name of the company completing the Contractor's Report and compiling backup documentation, the printed name, signature, and daytime phone number of the person completing the form, the beginning and ending dates of the period covered on the Contractor's Report, and the date that the Contractor's Report is completed.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

- 3.01 SALVAGE, RE-USE, RECYCLING AND PROCEDURES
 - A. Identify re-use, salvage, and recycling facilities.
 - B. Develop and implement procedures to re-use, salvage, and recycle new construction and excavation materials, based on the Contract Documents, the Contractor's Construction Waste and Recycling Plan, estimated quantities of available materials, and availability of recycling facilities. Procedures may include on-site recycling, source separated recycling, and/or mixed debris recycling efforts.
 - 1. Identify materials that are feasible for salvage, determine requirements for site storage, and transportation of materials to a salvage facility.
 - 2. Source separate new construction, excavation and demolition materials including, but not limited to the following types:
 - a. Asphalt.
 - b. Concrete, concrete block, slump stone (decorative concrete block), and rocks.
 - c. Drywall.
 - d. Green materials (i.e. tree trimmings and land clearing debris).
 - e. Metal (ferrous and non-ferrous).
 - f. Miscellaneous Construction Debris.
 - g. Paper or cardboard.
 - h. Red Clay Brick.
 - i. Reuse or Salvage Materials
 - j. Soils.
 - k. Wire and Cable.
 - I. Wood.
 - m. Other (describe)

3. Miscellaneous Construction Debris: Develop and implement a program to transport loads of mixed (commingled) new construction materials that cannot be feasibly source separated to a mixed materials recycling facility.

3.02 DISPOSAL OPERATIONS AND WASTE HAULING

- A. Legally transport and dispose of materials that cannot be delivered to a source separated or mixed recycling facility to a transfer station or disposal facility that can legally accept the materials for the purpose of disposal.
- B. Use a permitted waste hauler or Contractor's trucking services and personnel. To confirm valid permitted status of waste haulers, contact the local solid waste authority.
- C. Become familiar with the conditions for acceptance of new construction, excavation and demolition materials at recycling facilities, prior to delivering materials.
- D. Deliver to facilities that can legally accept new construction, excavation and demolition materials for purpose of re-use, recycling, composting, or disposal.
- E. Do not burn, bury or otherwise dispose of solid waste on the project job-site.

3.03 RE-USE AND DONATION OPTIONS

- A. Implement a re-use program to the greatest extent feasible. Options may include:
 - California Materials Exchange (CAL-MAX) Program is sponsored by the California Integrated Waste Management Board. CAL-MAX is a free service provided by the California Integrated Waste Management Board, designed to help businesses find markets for materials that traditionally would be discarded. The premise of the CAL-MAX Program is that material discarded by one business may be a resource for another business. To obtain a current Materials Listings Catalog, call CAL-MAX/California Integrated Waste Management Board at (916) 255-2369 or send a FAX to (916) 255-2200. The CALMAX Catalog is available through the Internet Site at http://www.ciwmb/ca.gov/calmax.

3.04 REVENUE

A. Revenues or other savings obtained from recycled, re-used, or salvaged materials shall accrue to Contractor unless otherwise noted in the Contract Documents.

END OF SECTION 01 15 10

S201-ITB2, Volume 2 - SECTION 01 31 13.1 - REQUESTS FOR INTERPRETATION (RFI)

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Procedures for submitting requests for interpretation (RFI).
- B. Limitations on use of RFI to obtain interpretation and clarification.

1.03 DEFINITIONS

A. Request for Interpretation: A document submitted by the Contractor requesting clarification of a portion of the Contract Documents, hereinafter referred to as an RFI.

1.04 CONTRACTOR'S REQUESTS FOR INTERPRETATION (RFIs)

- B. Contractor's Requests for Interpretation (RFIs): Should Contractor be unable to determine from the Contract Documents the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of Work is described differently at more than one place in the Contract Documents; the Contractor shall request that the FORA Construction Manager make an interpretation of the requirements of the Contract Documents to resolve such matters. Contractor shall comply with procedures specified herein to make Requests for Interpretation (RFIs).
- C. Submission of RFIs: RFIs shall be prepared and submitted on a form provided by the FORA Construction Manager.
 - 1. Forms shall be completely filled in, and if prepared by hand, shall be fully legible after copying by xerographic process.
 - 2. Each RFI shall be given a discrete, consecutive number.
 - 3. Each page of the RFI and each attachments to the RFI shall bear the FORA's project name, project number, date, RFI number and a descriptive title.
 - 4. Contractor shall sign all RFIs attesting to good faith effort to determine from the Contract Documents the information requested for interpretation. Frivolous RFIs shall be subject to reimbursement from Contractor to FORA Construction Manager for fees charged by FORA's consultants and other design professionals engaged by the FORA.
- D. Subcontractor-Initiated and Supplier-Initiated RFIs: RFIs from subcontractors and material suppliers shall be submitted through, be reviewed by and be attached to an RFI prepared, signed and submitted by Contractor. RFIs submitted directly by subcontractors or material suppliers will be returned unanswered to the Contractor.

- 1. Contractor shall review all subcontractor- and supplier-initiated RFIs and take actions to resolve issues of coordination, sequencing and layout of the Work.
- 2. RFIs submitted to request clarification of issues related to means, methods, techniques and sequences of construction or for establishing trade jurisdictions and scopes of subcontracts will be returned without interpretation. Such issues are solely the Contractor's responsibility.
- 3. Contractor shall be responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.
- E. Requested Information: Contractor shall carefully study the Contract Documents, in particular, Article 2 of the Contract Agreement, to ensure that information sufficient for interpretation of requirements of the Contract Documents is not included. RFIs that request interpretation of requirements clearly indicated in the Contract Documents will be returned without interpretation.
 - In all cases in which RFIs are issued to request clarification of issues related to means, methods, techniques and sequences of construction, for example, pipe and duct routing, clearances, specific locations of Work shown diagrammatically, apparent interferences and similar items, the Contractor shall furnish all information required for the FORA Construction Manager to analyze and/or understand the circumstances causing the RFI and prepare a clarification or direction as to how the Contractor shall proceed.
 - 2. If information included with this type RFI by the Contractor is insufficient, the RFI will be returned unanswered.
- F. Unacceptable Uses for RFIs: RFIs shall not be used to request the following:
 - 1. Approval of submittals (use procedure specified in Section 01 33 00 Submittals Procedures)
 - 2. Approval of substitutions (refer to Section 01 63 00 Product Substitution Procedures)
 - 3. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Article 5 of the Contract Agreement, as discussed in detail during pre-construction meeting).
 - 4. Different methods of performing Work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Article 5 of the Contract Agreement).
- G. Disputed Requirements: In the event the Contractor believes that a clarification by the FORA Construction Manager results in additional cost or time, Contractor shall comply with Article 22 of the Contract Agreement.
- H. RFI Log: Contractor shall prepare and maintain a log of RFIs, and at any time requested by the FORA Construction Manager, the Contractor shall furnish copies of the log showing all outstanding RFIs.
- I. Review Time: FORA Construction Manager will return RFIs to Contractor within seven calendar days of receipt. RFIs received after 12:00 noon shall be considered received on the next regular working day for the purpose of establishing the start of the seven-calendar day response period.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 31 13.1

S201-ITB2, Volume 2 - SECTION 01 31 20 - PROJECT MEETINGS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 REQUIREMENTS INCLUDED

- A. Preconstruction meeting.
- B. Construction progress meetings.
- 1.03 RELATED REQUIREMENTS
 - A. Section 01 45 00 Quality Control: General requirements for construction quality, to be reviewed at construction progress meetings.

1.04 RECONSTRUCTION MEETING

- B. Preconstruction Meeting: FORA Construction Manager will administer a preconstruction meeting immediately prior to Contractor mobilization onto the project site.
 - 1. Contractor and major subcontractors, as appropriate, shall attend.
- C. Schedule: Schedule preconstruction meeting within five days of construction start date established in the Notice to Proceed.
- D. Location: Preconstruction meeting will be held at a location as directed by the FORA Construction Manager.
- D. Agenda: Preconstruction meeting shall cover the following topics as a minimum.
 - 1. Special Project Procedures: Site access restrictions, if any, and requirements to avoid disruption of operations at adjoining facilities. Present FORA's requirements for use of Project Site.
 - 2. Designation of Key Personnel: Contractor shall designate key personnel and provide a name and address list that includes the following.
 - a. Contractor: Project Manager and Superintendent.
 - b. Major subcontractors: Principal/Project Manager and Superintendent.
 - c. Major materials suppliers: Contact person.
 - 3. Subcontractors List: Distribute and discuss list of subcontractors and suppliers.
 - 4. Coordination: Review requirements for Contractor's coordination of Work. Review sequence and schedule for work being performed for University under separate contracts. Discuss coordination of construction to minimize impacts on nearby businesses and construction activities.

- 5. Project Communication Procedures: Review requirements and administrative requirements for written and oral communications.
- 6. Construction Schedule: Distribute and discuss initial construction schedule and critical work sequencing of major elements of Work, including coordination of other FORA contractors and work under separate contracts by serving utility agencies and companies.
- 7. Site Security: Review requirements for Contractor to develop and implement site security.
- 8. Safety Program: Review requirements for Contractor to develop and implement safety program in compliance with Contract Agreement.
- 9. Site Access by FORA and FORA Construction Manager Representative: Review requirements and administrative procedures Contractor may wish to institute for identification and reporting purposes.
- 10. Permits and Fees: Review Contract requirements and review schedule and process for obtaining permits and paying fees.
- 11. Project Layout: Review requirements for laying out of Work, including surveying requirements.
- 12. Construction Facilities: Designate storage and staging areas, construction office areas and parking areas and review site access requirements.
- 13. Temporary Utilities: Requirements for establishing and paying for temporary water, power, lighting and other utility services during construction, including metering and allowances. Refer to Section 01 51 00 Temporary Utilities.
- 14. Construction Progress Schedules: Review requirements for preparation and updating of construction progress and submittals schedules.
- 15. Payment Procedures: Review requirements for preparation and submission of applications for progress payments and for final payment.
- 16. Change Procedures: Review requirements and administrative procedures for Change Orders, Field Instructions and Contractor's Requests for Interpretation (RFI).
- 17. Testing and Inspection: Review tests and inspections to be performed by the following.
 - a. Independent testing and inspection agency.
 - b. Serving utilities and public agencies.
 - c. Authorities having jurisdiction.
- 18. Contract Closeout: Review requirements specified in Section 01 77 00 Contract Closeout Procedures, including procedures for filing of Notice of Completion, final payment and submittals.

1.05 CONSTRUCTION PROGRESS MEETINGS

- A. Construction Progress Meetings: Meetings will be held to review progress and quality of construction. The essence of the discussion of each meeting shall be entered into the written record (minutes) of the meeting by the Contractor.
- B. Schedule: Construction progress meetings shall be weekly throughout progress of the Work.

- C. Administration: Contractor shall make physical arrangements for meetings. Contractor shall prepare agenda with copies for participants, preside at meetings, record minutes and distribute copies within two working days to FORA and FORA Construction Manager, and participants and those affected by decisions made at meetings. Each discussion item at construction progress meetings shall be numerically identified and carried through subsequent meeting minutes until resolved.
- D. Attendance: Contractor's project manager and jobsite superintendent shall attend each meeting. Contractor's subcontractors and suppliers may attend as appropriate to subject under discussion. FORA and/or FORA Construction Manager will attend each meeting.
- E. Suggested Agenda for Each Construction Progress Meeting:
 - 1. Meeting Minutes: Review and correct, if necessary, minutes of previous meeting.
 - a. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.
 - b. Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.
 - c. Challenge to minutes shall be settled as priority portions of "old business" at the next regularly scheduled meeting.
 - 2. Progress of the Work: Since last meeting and proposed progress.
 - a. Identify potential problems which might impede progress.
 - b. Develop corrective measures and procedures, including but not necessarily limited to additional manloading to regain planned schedule.
 - c. Review three-week "look ahead" construction schedule, including identification of conflicts and delays.
 - 3. RFI Status: Review status of Requests for Interpretation (RFI) status.
 - 4. Contract Modifications: Pending Change Orders and Field Orders. Review status of proposed substitutions.
 - 5. Old Business: Active discussion topics carried over from previous meetings.
 - 6. New Business: New topics of discussion affecting construction progress and quality.
 - 7. Quality Control: Review maintenance of quality standards and identification of nonconforming Work, including proposed remedial measures to be taken by Contractor.
 - 8. Environmental and Safety Issues.
 - 9. Other items affecting progress and quality of the Work.
- F. Meeting Time and Location: As mutually agreed by the Contractor, and the FORA Construction Manager at on-site location.
- G. Special Meetings: As necessary, the Contractor, or the FORA Construction Manager may convene special meetings to discuss specific construction issues in detail and to plan specific activities.

1.06 CONTRACT COMPLETION MEETING

A. Contract Closeout Meeting: As specified in Section 01 77 00 - Contract Closeout Procedures.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 31 20

S201-ITB2, Volume 2 - SECTION 01 33 00 – SUBMITTALS PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Administrative requirements for shop drawings, product data and samples submittals.
- B. Administrative requirements for submittals reporting results of tests and inspections, during field Work.
- C. Contractor's review of submittals.
- D. Shop drawing submittals.
- E. Reports of results of tests and inspections.

1.03 RELATED SECTIONS

- A. Construction Progress Schedules: Submittals Schedule.
- B. Section 01 45 00 Quality Control
- C. Section 01 77 00 Contract Closeout Procedures

1.04 DEFINITIONS

- A. Shop Drawings, Product Data and Samples: Instruments prepared and submitted by Contractor, for Contractor's benefit, to communicate to FORA Construction Manager the Contractor's understanding of the design intent, for review and comment by Architect on the conformance of the submitted information to the general intent of the design. Shop drawings, product data and samples are not Contract Documents.
- B. Shop Drawings: Drawings, diagrams, schedules and illustrations, with related notes, specially prepared for the Work of the Contract, to illustrate a portion of the Work.
- C. Product Data: Standard published information ("catalog cuts") and specially prepared data for the Work of the Contract, including standard illustrations, schedules, brochures, diagrams, performance charts, instructions and other information to illustrate a portion of the Work.
- D. Other Submittals: Technical data, test reports, calculations, surveys, certifications, special warranties and guarantees, operation and maintenance data, extra stock and other submitted information and products shall also be not be considered to Contract Documents but shall be information from Contractor to Architect to illustrate a portion of the Work for confirmation of understanding of design intent.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Administrative Requirements for Submittals: Submittals shall be made in accordance with requirements specified in the Technical Specifications, as represented on the drawings. See

also Article 5 of the Contract General Conditions for additional requirements especially those regarding requests for alternatives or equals and for substitutions.

- B. Contractor Coordination of Submittals: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination. The FORA Construction Manager will return without action submittals requiring coordination with other submittals until related submittals are coordinated.
- C. Submittals List: Contractor shall prepare and submit a Submittals List for review and approval by the FORA Construction Manager. Submittals List shall identify all specified submittals to be made and shall serve as checklist for submittals.
 - 1. Format shall be suitable for Project and shall be subject to acceptance by FORA Construction Manager. Comply with directions by FORA Construction Manager for scope and format of Submittals List.
 - 2. Submittals list shall include the following submittal types and headings:
 - SD = Shop Drawings are required
 - PD = Product Data required
 - SA = Samples required
 - CO = Color samples required
 - SS = Site Sample installations are required
 - LM = List of Materials
 - RD = Record Drawings required
 - CE = Certificates are required
 - PR = Manufacturer's instructions or specifications required
 - OM = Operation and Maintenance manuals are required
 - Q = Maintenance materials/equipment are required
 - WA = Warranties and/or guarantees are required
 - LR = Laboratory Reports are required
 - FT = Factory Test reports are required
 - ST = Site Test reports required
 - RP = Submittal to the Architect for record purposes only and not for review or approval
 - O = Other submittal requirements as specified in Section
 - 3. Sample Table:

ſ	<mark>1.024 05120</mark>	1.025 x	1.026	1.027	1.028	1.029	1.030 x	1.031	1.032	1.033
	<mark>1.042 09250</mark>	1.043	1.044 x	1.045	1.046	1.047 x	1.048 x	1.049	1.050 x	1.051
	<mark>1.060 10810</mark>	1.061	1.062 x	1.063 x	1.064	1.065	1.066	1.067	1.068	1.069

- D. Transmission of Submittals: Package each submittal appropriately for shipping and handling. Transmit all submittals from Contractor to FORA Construction Manager, unless otherwise directed, using a transmittal form. Submittals received from sources other than the Contractor will be returned without action. Include all information specified below for identification of submittal and for monitoring of review process.
- E. Timing of Submittals: Make submittals sufficiently in advance of construction activities to allow shipping, handling and review by the FORA Construction Manager. Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.
 - 1. See Contract General Conditions and Supplementary General Conditions for additional requirements.
 - 2. If an intermediate submittal is necessary, process the same as the initial submittal.
 - 3. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.
- F. Submittals Identification:
 - 1. Provide a space approximately four-inches by five-inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken. Include the following information on the label for processing and recording action taken:
 - a. Project name and Trustees project number
 - b. Submission date
 - c. Name and address of Contractor
 - d. Name and address of subcontractor
 - e. Name and address of supplier
 - f. Name of manufacturer
 - g. Number and title of appropriate Specification Section
 - h. Drawing number and detail references, as appropriate.
 - 2. 2. Identify each submittal by Specification Section number followed by a number indicating sequential submittal for that Section. Resubmittals shall use same number as original submittal, followed by a letter indicating sequential resubmittal. For example:

09250-1	First submittal for Section 09250 - Gypsum Board.
09250-2	Second submittal for Section 09250 - Gypsum Board.
09250-2A	Resubmittal of second submittal for Section 09250 - Gypsum Board.
09250-2B	Second resubmittal of second submittal for Section 09250 Gypsum Board.

3. Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

- G. Grouping of Submittals: Unless otherwise specifically permitted by the FORA Construction Manager, make all submittals in groups containing all associated items. The FORA Construction Manager may reject partial submittals as incomplete or hold them until related submittals are made.
- H. Unsolicited Submittals: Unsolicited submittals may be returned unreviewed.
- I. Record Submittals: When record submittals are specified, submit three copies or sets only. Record submittals will not be reviewed but will be retained for historical and maintenance purposes.

1.7 SUBMITTALS SCHEDULE

A. Submittals Schedule: As specified in the Construction Progress Schedules.

1.8 CONTRACTOR'S REVIEW OF SUBMITTALS

- A. Contractor's Review of Submittals: Prior to submission to FORA Construction Manager for review, Contractor shall review each submittal for completeness and conformance to specified requirements. Contractor shall stamp each submittal with a review action stamp and sign each copy of submittal. Submittals without stamp and signature will not be reviewed and will be returned. Contractor's submittal action stamp shall certify the following actions by Contractor:
 - 1. Field measurements have been determined and verified.
 - 2. Conformance with requirements of Contract Drawings and Specifications is confirmed.
 - 3. Catalog numbers and similar data are correct.
 - 4. Work being performed by various subcontractors and trades is coordinated.
 - 5. Field construction criteria have been verified, including confirmation that information submitted has been coordinated with the work being performed by others for University and actual site conditions.
 - 6. All deviations from requirements of Drawings and Specifications have been identified and noted.
- B. Changes in Work: Changes in the Work shall not be authorized by submittals review actions. No review action, implicit or explicit, shall be interpreted to authorized changes in the Work. Changes shall only be authorized by separate written direction from the FORA Construction Manager, in accordance with the Contract General Conditions.

1.9 REVIEW OF SUBMITTALS BY FORA CONSTRUCTION MANAGER

- A. Review of Submittals by FORA Construction Manager: Submittals shall be a communication aid between Contractor and FORA Construction Manager by which interpretation of Contract Documents requirements may be confirmed in advance of construction.
 - 1. Reviews by FORA Construction Manager and FORA's consultants shall be only for general conformance with the design concept of the Project and general compliance with the information given in the Drawings and Specifications.

- 2. Except for submittals for record, information or similar purposes, where action and return is required or requested, the FORA Construction Manager will review each submittal, mark to indicate action taken, and return promptly.
- B. Review Action: FORA Construction Manager or FORA's consultants will stamp each submittal with a uniform, self-explanatory action stamp. Stamp will be appropriately marked, as follows, to indicate the action taken:
 - 1. Final Unrestricted Release: Where submittals are marked "Approved," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
 - 2. Final-But-Restricted Release: When submittals are marked "Approved as Noted," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
 - 3. Returned for Re-submittal: When submittal is marked "Not Approved, Revise and Resubmit," do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
 - a. Do not permit submittals marked "Not Approved, Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.
 - b. Note: Any work performed prior to receiving a fully approved submittal shall be done at the Contractor's risk and shall be subject to being replaced if Contract requirements are not met.
- C. Contract Requirements:
 - 1. Review actions by FORA Construction Manager or FORA's consultants shall not relieve the Contractor from compliance with requirements of the Contract Drawings and Specifications.
 - No review action, implicit or explicit, shall be interpreted to authorize changes in the Work. Changes shall only be authorized by separate written Change Order or Field Instruction, in accordance with the Contract General Conditions.

1.10 PRODUCT DATA SUBMITTALS

- A. Product Data: Catalog cuts, photographs, illustrations, standard details, standard schedules, performance charts, material characteristics, color and pattern charts, test data, roughing-in diagrams and templates, standard wiring diagrams and performance curves and listings by Code authorities and nationally-recognized testing and inspection services. Where product data must be specially prepared because standard printed data is not suitable for use, submit according to requirements for shop drawings, specified below.
- B. Modifications to Standard Product Data: Modify manufacturer's standard catalog data to indicate precise conditions of the Project.
 - 1. Mark each copy to show applicable choices and options. Where printed product data includes information on several products, some of which are not required, mark copies to highligh applicable information.

2. Include the following information:

Manufacturer's printed recommendations, Compliance with recognized trade association standards, Compliance with recognized testing agency standards, Application of testing agency labels and seals, Notation of dimensions verified by field measurement, Notation of coordination requirements.

- 3. Do not submit product data until compliance with requirements of the Contract Documents has been confirmed.
- 4. Proceed with installation only using reviewed copy of product data. Do not permit use of unmarked copies of product data in connection with construction.
- C. Copies: Contractor shall submit one electronic copy of the submittal to the FORA Construction Manager. For shop drawings including samples, submit the electronic copy of the submittal and separately transmit six (6) sample pieces.

1.11 SHOP DRAWINGS SUBMITTALS

- A. Shop Drawings: Drawings, diagrams, schedules and other graphic depictions to illustrate fabrication and installation of a portion of the Work. Shop Drawings shall include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
 - 1. Identification of products and materials included
 - 2. Compliance with referenced standards
 - 3. Notation of coordination requirements
 - 4. Dimensions
 - 5. Notation of dimensions established by field measurement.
- B. Coordination: Show all field dimensions and relationships to adjacent or critical features of Work.
- C. Preparation of Shop Drawings: Prepare and submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
 - 1. Prepare shop drawings on minimum sheet size of 8-1/2 inches by 11-inches. Maximum size shall be 24-inches by 36-inches.
 - 2. Do not use Shop Drawings without an appropriate final review stamp indicating action taken in connection with construction.
 - D. Distribution of Reviewed Shop Drawings: Distribution of reviewed shop drawings will be by FORA Construction Manager. Contractor shall submit one electronic copy of the submittal to the FORA Construction Manager. For shop drawings including samples, submit the electronic copy of the submittal and separately transmit eight (8) sample pieces.

1.12 SAMPLES SUBMITTALS

- A. Samples: Full-size, fully-fabricated samples, cured and finished as specified and physically identical with the material or product proposed. Samples shall include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.
 - 1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to include the following:

Generic description of the Sample Sample source Product name or name of manufacturer Compliance with recognized standards Availability and delivery time.

- 2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
- 3. Submit actual samples. Photographic or printed reproductions will not be accepted.
- 4. Field samples specified in individual Sections are special types of samples. Field samples shall be full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be evaluated.
- B. Preliminary or Selection Submittals: Where samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit full set of choices for the specified material or product.
 - 1. Preliminary submittals will be reviewed and returned with the Architect's mark indicating selection and other action.
- C. Quantity: Except for samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit three sets. One sample will be returned marked with the action taken.
 - 1. Maintain sets of samples, as returned, at the Project site, for quality comparisons throughout the course of construction.
 - 2. Unless otherwise noted, full-size and complete samples will be returned and may be incorporated into field mock-ups. Samples may be incorporated into the Work (completed construction) only with written approval of the Architect.
 - 3. Other samples shall be produced and mounted on cardstock in 8-1/2" by 11" format, three-hole punched and suitable for inclusion in product sample binders. Contractor shall provide binders as directed.
 - 4. Contractor shall prepare and distribute additional samples to subcontractors, manufacturers, fabricators, suppliers, installers, and others as necessary for performance of the Work.
- D. Color Samples: Architect will review and select colors for Project only after all colors are received, so that colors may be properly coordinated.
- E. Review of Field Samples: Review by Architect of field samples will be made for the following products if not otherwise required and if requested by Contractor.

- 1. Gypsum board textures and finishes.
- 2. Gypsum plaster textures and finishes.
- 3. Field-applied paint colors and finishes: Draw-downs and brush-outs.
- 4. Ceiling panels
- 5. Sound Soak

1.13 1 MANUFACTURER'S INSTRUCTIONS

- A. Manufacturer's Instructions: Submit manufacturer's instructions for preparation, mixing, assembly, handling, application and installation of products, as applicable and as specified in product Sections of the Specifications.
 - 1. Include applicable ICBO ES Evaluation Reports. Evaluation Reports shall be current and shall be annotated for applicable products.
 - 2. Include applicable Material Safety Data Sheets, for Project record only.
 - 3. Include written recommendations, as applicable, from manufacturer for Project conditions.
- B. Copies: Submit five copies minimum. Distribution will be:
 - 1. University's Representative: One copy
 - 2. Architect: One copy
 - 3. Architect's consultant: One copy
 - 4. Project Inspector: One copy
 - 5. Contractor: As necessary, retained by Contractor.
 - 6. Reviews by Architect and University's Representative: Manufacturer's instructions shall be for information and will not be reviewed by Architect or University's Representative.

1.14 REPORTS OF RESULTS OF INSPECTIONS AND TESTS

- A. Reports of Results of Inspections and Tests: Submit technical data, test reports, calculations, surveys, and certifications based on field tests and inspections by independent inspection and testing agency and by authorities having jurisdiction.
 - 1. Reports of results of inspections and tests shall not be considered Contract Documents.
 - 2. Refer to Section 01450 Quality Control for additional requirements.

1.15 OPERATION AND MAINTENANCE DATA SUBMITTALS

A. Operation and Maintenance Data Submittals: Refer to requirements specified in Section 01783 - Operation and Maintenance Data. Include operation and maintenance data submittals in Submittals Schedule. Refer to the Construction Progress Schedules.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 13 30

S201-ITB2, Volume 2 - SECTION 01 33 50 SPECIAL PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Environmental protection procedures
- B. Smoke/odor control procedures
- C. Noise control procedures
- D. Dust and air pollution control procedures
- E. Hazardous materials procedures
- F. Welding and burning mitigation procedures
- G. Erosion and sediment control procedures (Storm Water Pollution Protection Plan)
- H. Disposal operations procedures
- I. Cultural resources procedures
- J. Alteration project procedures.

1.03 SITE DECORUM

Contractor shall control the conduct of labor forces and prevent unwanted interaction initiated by workers with the FORA staff, students or other individuals other than those associated with the Project.

In the event that any worker initiates unwanted interaction, uses profanity, or in the opinion of the FORA Construction Manager, conducts him/herself in an offensive or unprofessional manner, the Contractor shall immediately remove the worker from the project and replace said worker with another of equivalent technical skill at no cost to the FORA.

All Contractor personnel associated with the project shall wear shirts at all times and conduct themselves professionally in the presence of FORA staff and other people in the vicinity of the Project Site.

No smoking is allowed within any FORA facility.

No radios, other than 2-way communication type, will be allowed on the Project Site.

1.04 DIVERTED WASTE GOAL

Per AB939, California Integrated Solid Waste Management Act of 1989, requires FORA to reduce the amount of solid waste diverted to the land fill.

Before the release of retention, the Contractor must submit a spreadsheet to the FORA Construction Manager similar to the attached. The Contractor will also include original copies of the weight tickets with the spreadsheet.

1.05 ENVIRONMENTAL PROTECTION PROCEDURES

- A. Environmental Protection Procedures, General: Requirements specified in this Section are in addition to those of Article 3 of the Contract Agreement.
 - 1. During the progress of the work, keep the premises occupied in a neat and clean condition and protect the environment both on site and off site, throughout and upon completion of the construction project.
 - 2. In coordination with the FORA, develop an Environmental Protection Plan in detail and submit to FORA Construction Manager for approval within 7 calendar days from the date of commencement specified in the Notice to Proceed. Distribute approved plan to all employees and to all subcontractors and their employees. Environmental Protection Plan shall include, but not be limited to, the following items:
 - a. Copies of required permits
 - b. Proposed sanitary landfill site
 - c. Other proposed disposal sites
 - d. Noise Control
 - e. Dust Control
 - f. Erosion and Sediment Control
 - g. Copies of any agreements with public or private landowners regarding equipment, materials storage, borrow sites, fill sites, or disposal sites. Such agreements made by Contractor shall be invalid if their execution causes violation of local or regional grading or land use regulations.
- B. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result.
 - 1. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.
 - 2. Comply with noise control requirements specified below.
- C. Construction Operations: All construction operations shall comply with all applicable Federal, State and local Codes, ordinances, statutes and regulations pertaining to water, air, solid waste and noise pollution. It shall be Contractor's responsibility to identify and

determine necessary measures to be taken to comply with such Codes, ordinances, statutes and regulations.

- D. Definitions of Contaminants:
 - 1. Sediment: Soil and other debris that have been eroded and transported by runoff water
 - 2. Solid waste: Rubbish, debris, garbage and other discarded solid materials resulting from construction activities, including a variety of combustible and non-combustible wastes, such as ashes, waste materials that result from construction or maintenance and repair work, leaves and tree trimmings
 - 3. Chemical waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, disinfectants, organic chemicals and inorganic wastes. Some of the above may be classified as "hazardous"
 - 4. Sanitary wastes:
 - a. Sewage: Domestic sanitary sewage
 - b. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing and consumption of food.
 - c. Trimming: Refer to Section 01 56 80 Tree and Plant Protection.
 - d. Excavations around trees: Refer to Section 01 56 80 Tree and Plant Protection.
 - e. Repair and restoration: Repair or replace trees or other landscape feature scarred or damaged by equipment or construction operations as specified below. Repair and restoration plan shall be reviewed and approved by FORA Construction Manager prior to its initiation.
- E. Protection of Natural Resources: It is intended that the natural resources within the Project boundaries and outside the limits of permanent work performed under this Contract be preserved in their existing condition or be restored to an equivalent or improved condition upon completion of the work. Confine construction activities to areas defined by the public roads, easements, and work area limits shown on the drawings. Return construction areas to their pre-construction elevations except where surface elevations are otherwise noted to be changed. Maintain natural drainage patterns. Conduct construction activities such that ponding of stagnant water conducive to mosquito breeding habitat will not occur at any time.
 - 1. Land resources protection: Do not remove, cut, deface, injure or destroy trees or shrubs outside the work area limits. Do not remove, deface, injure or destroy trees within the Project area without permission from FORA Construction Manager. Such improvements shall be removed and replaced, if required, by the Contractor at no change in Contract Time and Contract Sum.
 - 2. Landscaping protection: Protect trees that are located near the limits of Project area which may possibly be defaced, bruised or injured or otherwise damaged by the Contractor's operations. No ropes, cables or guys shall be fastened to or be attached to any existing nearby trees or shrubs for anchorages. Refer to additional requirements specified in Section 01 56 00 Temporary Barriers and Controls.
 - 3. Temporary construction:
 - a. Remove all signs of temporary construction facilities such as haul roads, work areas,

structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the FORA Construction Manager.

- b. Level all temporary roads, parking areas and any other areas that have become compacted or shaped.
- c. Unpaved areas where vehicles have been operated shall receive suitable surface treatment or shall be periodically wetted down to prevent construction operations from producing dust damage and nuisance to persons and property, at no additional cost to the Trustees.
- d. Keep haul roads clear at all times of any object that creates an unsafe condition. Promptly remove any contaminants or construction materials dropped from construction vehicles. Do not drop mud and debris from construction equipment on public streets. Sweep clean turning areas and pavement entrances as necessary.
- 4. Water resources: Comply with all applicable Federal, State and local Codes, ordinances, statutes and regulations pertaining to discharge (directly or indirectly) of pollutants to underground and natural waters.
 - a. Perform all Work under the Contract in a manner that any adverse environmental impacts are reduced to a level that is acceptable to FORA Construction Manager and authorities having jurisdiction.
- 5. Oily Substances: At all times, special measures shall be taken to prevent oily or other hazardous substances from entering the ground, drainage areas or local bodies of water in such quantities as to affect normal use, aesthetics or produce a measurable impact upon the areas. All soil or water that is contaminated with oily substances due to Contractor's operations shall be disposed of in accordance with applicable regulations, at no change in Contract Time and Contract Sum.

1.06 SMOKE/ODOR CONTROL PROCEDURES

- A. Smoke/Odor Control: Protect primary fresh air intakes to existing buildings from exhaust from internal combustion engines, paint and solvent fumes and other noxious fumes and vapors.
 - 1. Implement control methods such as snorkels from engines exhausts to 50 feet away from air intakes. Provide carbon filters on air intakes as necessary, including periodic replacement of filters to ensure effectiveness.
 - 2. All other activities generating fumes shall be limited to minimum distance of 50 feet from air intake grilles.
 - 3. If fume-generating procedures must occur within 50 feet of an air intake, Contractor shall do the following:
 - a. Notify FORA Construction Manager at least 14 calendar days in advance of such activities.
 - b. Perform Work when it least impacts the other activities at the Project Site (evenings, weekends or particularly windy days).
 - c. Provide carbon filter media, plastic barriers, or other control methods to ensure

fresh air only enters into the building ventilation system.

1.07 NOISE CONTROL PROCEDURES

- A. Noise Control Procedures, General: Maximum noise levels within 1,000 feet of classrooms, laboratories, residences, businesses, adjacent buildings and other populated areas:
 - 1. Noise levels for trenchers, pavers, graders and trucks: Not exceeding 95 dBA at the project limits as measured under noisiest operating conditions.
 - 2. Noise levels for all other equipment: Not exceeding 85 dBA at the project limits.
- B. Noise Control of Equipment:
 - 1. Equip jackhammers with exhaust mufflers and steel muffling sleeves.
 - 2. Use air compressors of a quiet type such as a "whisperized" compressor. Compressor hoods shall be closed while equipment is in operation.
 - 3. Provide portable noise barriers around jack hammering, with barriers constructed of 3/4 inch plywood lined with 1-inch thick ductliner type fiberglass on Work side.
- C. Noise Control of Construction Operations:
 - 1. Keep noisy equipment as far as possible from noise-sensitive site boundaries.
 - 2. Machines shall not be left idling.
 - 3. Use electric power in lieu of internal combustion engine power whenever possible.
 - 4. Maintain equipment properly to reduce noise from excessive vibration, faulty mufflers, or other sources. All engines shall have properly functioning mufflers.
- D. Scheduling of Noisy Operations: Schedule construction activities to minimize time of noisy operations and disruption to occupants of adjoining facilities. Notify University's Representative in advance of performing Work creating unusual noise and schedule such Work at times mutually agreeable.
- E. Accessory Noise: Do not play radios, tape recorders, televisions, and other similar items at construction site.

1.08 DUST AND AIR POLLUTION CONTROL PROCEDURES

- F. Dust and Air Pollution Control Procedures, General: Requirements of this Section are in addition to those of Article 3 of the Contract Agreement. Employ measures to prevent or minimize creation of dust and air pollution. Contractor shall appoint a dust control monitor to oversee and implement all measures specified in this Article.
 - 1. Unpaved areas shall be wetted down, to eliminate dust formation, a minimum of twice a day to reduce particulate matter. When wind velocity exceeds 15 mph, site shall be watered down more frequently.
 - 2. Store all volatile liquids, including fuels or solvents in closed containers.
 - 3. No on-site burning of debris, lumber and other scrap shall be permitted.
 - 4. Properly maintain equipment to reduce gaseous pollutant emissions.

- 5. Exposed areas, new driveways and sidewalks shall be seeded, treated with soil binders or paved, as appropriate, as soon as possible.
- 6. Cover stockpiles of soil, sand and other loose materials.
- 7. Cover trucks hauling soil, debris, sand or other loose materials.
- 8. Sweep project area streets at least once daily. Refer to Section 01 74 00 Cleaning Requirements.

1.09 WELDING AND BURNING MITIGATION PROCEDURES

A. Welding and Burning Mitigation Procedures: Eliminate welding and burning of steel as much as possible. Where unavoidable, perform welding and burning with all possible precaution to avoid fire hazard. Provide a fire watch for minimum of 30 minutes after burning stops. Provide protection for all adjacent surfaces.

1.010 EROSION AND SEDIMENT CONTROL PROCEDURES

A. Erosion and Sediment Control Procedures: Refer to runoff control requirements specified in Section 01 57 00 - Temporary Controls. Obtain and comply with Storm Water Pollution Protection Plan (SWPPP) and project-specific requirements indicated on Civil Drawings.

1.011 DISPOSAL OPERATIONS PROCEDURES

- A. Solid Waste Management:
 - 1. Supply solid waste transfer containers. Daily remove all debris such as spent air filters, oil cartridges, cans, bottles, combustibles and litter. Take care to prevent trash and papers from blowing onto adjacent property. Encourage personnel to use refuse containers. Convey contents to a sanitary landfill.
 - 2. Washing of concrete containers where wastewater may reach adjacent property, storm drains or natural water courses will not be permitted. Remove any excess concrete to the sanitary landfill.
- B. Chemical Waste and Hazardous Materials Management: furnish containers for storage of spent chemicals used during construction operations. Dispose of chemicals and hazardous materials in accordance with applicable regulations.
- C. Garbage: Store garbage in covered containers, pick up daily and dispose of in a sanitary landfill.
- D. Grading Spoil and Landscape Debris: Dispose of vegetation, weeds, rubble, and other materials removed by the clearing, stripping and grubbing operations off site at a suitable disposal site in accordance with applicable Federal, State and local Codes, ordinances, statutes and regulations
- E. Excavated Materials:
 - 1. Native soil complying may be used for backfill, fill and embankments
 - 2. Remove all material which is excavated in excess of that required for backfill. Dispose of unsuitable excavated material from the site and dispose of it legally.

- a. Excess suitable backfill material shall be hauled off site. No additional compensation will be paid to the Contractor for such off haul. Include all such costs in the Contract Sum.
- b. Unsuitable backfill material shall be disposed of off-site in accordance with applicable regulations, in a disposal site indicated in the Environmental Protection Plan.
- c. Remove rubbish and materials unsuitable for backfill immediately following excavation.
- d. Remove material in excess of that required for backfill immediately following backfill operations.

1.12 CULTURAL RESOURCES PROCEDURES

- A. Cultural Resources Procedures:
 - 1. It is conceivable that unrecorded archaeological sites could be discovered during the excavation of the Rolling Pin building basement.
 - 2. In the event that artifacts, human remains, or other cultural resources are discovered during subsurface excavations at locations of the Work, the Contractor shall protect the discovered items, cease work for a distance of 35 feet radius in the area, notify the FORA Construction Manager and comply with applicable law.
 - 3. FORA may retain an Archaeologist to monitor and recover data and artifacts during period that work has ceased.
 - 4. All items found which are considered to have archaeological significance are the property of FORA.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 33 50

S201-ITB2, Volume 2 - SECTION 01 33 55 – Safety and Health Procedures

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Procedures for health and safety protection and requirements for reporting accidents.

1.03 RELATED SECTIONS

A. Section 01 56 00 - Temporary Barriers and Enclosures

1.04 SUBMITTALS

- A. Accident Reporting: A copy of each accident report, which FORA and FORA Construction Manager as soon as possible, but in no event later than seven (7) calendar days after the day the accident occurred.
- B. Other Submittals: If agreed to in writing at the preconstruction safety meeting, other submittals shall be required. One such submittal that may be included is a plan of action for handling hazardous materials to contain the following:
 - 1. Number, type, and experience of employees to be used for the Work
 - 2. Description of how safety and health regulations and standards shall be met
 - 3. Type of protective equipment and work procedures to be used
 - 4. Emergency procedures for accidental spills or exposures.

PART 2 - PRODUCTS

- 2.01 GENERAL
 - A. Special facilities, devices, equipment, clothing, and similar items used by the Contractor in the execution of the Work shall comply with applicable regulations.

PART 3 - EXECUTION

- 3.01 STOP WORK ORDERS
 - A. Stop Work Orders:
 - 1. When the Contractor or its subcontractors are notified by FORA Construction Manager of an incident of noncompliance with the provisions of the Contract, and the action(s)

to be taken, the Contractor shall immediately, if so directed, or within 48 hours after receipt of a notice of violation, correct the unsafe or unhealthy condition.

- 2. If the Contractor fails to comply promptly, all or any part of the work performed may be stopped by with a "Stop Work Order." When, in the opinion of the FORA Construction Manager, satisfactory corrective action has been taken to correct the unsafe and unhealthy condition, a start order will be given immediately.
- 3. The Contractor shall not be allowed any extension of time or compensation for damages by reason of or in connection with such work stoppage.

3.02 PROTECTION

- B. Protection: Contractor shall take all necessary precautions to prevent injury to the public, building occupants, or damage to property of others.
 - 4. For the purposes of the Contract, the public or building occupants shall include all persons not employed by the Contractor or a subcontractor working under the Contractor's direction.
 - 5. Work shall not be performed in any area occupied by the public or FORA's contractors unless specifically permitted by the Contract or the FORA Construction Manager and unless adequate steps are taken for the protection of the public and the FORA's contractors.
 - 6. Whenever practicable, the work area shall be fenced, barricaded, or otherwise blocked off from the public or building occupants to prevent unauthorized entry into the work area.
- C. Alternate Precautions: When the nature of the Work prevents isolation of the work area, and the public or building occupants may be in or pass through, under or over the work area, alternate precautions such as the posting of signs, the use of signal persons, the erection of barricades or similar protection around particularly hazardous operations shall be used as appropriate.
- D. Public Thoroughfare: When Work is to be performed over a public thoroughfare such as a sidewalk, lobby, or corridor, the thoroughfare shall be closed, if possible, or other precautions taken such as the installation of screens or barricades. When the exposure to heavy falling objects exists, as during the erection of building walls or during demolition, special protection of the type detailed in 29 CFR 1910/1926 shall be provided.
- E. Hazardous Conditions: Storing, positioning or use of equipment, tools, materials, scraps, and trash in a manner likely to present a hazard to the public or building occupants by its accidental shifting, ignition, or other hazardous qualities is prohibited.

END OF SECTION 01 33 55

S201-ITB2, Volume 2 - SECTION 01 41 00 – REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 AUTHORITY AND PRECEDENCE OF CODES, ORDINANCES AND STANDARDS

- A. Authority: All codes, ordinances and standards referenced in the Drawings and Specifications shall have the full force and effect as though printed in their entirety in the Specifications.
- B. Precedence:
 - 1. Where specified requirements differ from the requirements of applicable codes, ordinances and standards, the more stringent requirements shall take precedence.
 - 2. Where the Drawings or Specifications require or describe products or execution of better quality, higher standard or greater size than required by applicable codes, ordinances and standards, the Drawings and Specifications shall take precedence so long as such increase is legal.
 - 3. Where no requirements are identified in the Drawings or Specifications, comply with all requirements of applicable codes, ordinances and standards of authorities having jurisdiction.

1.1 APPLICABLE CODES, LAWS AND ORDINANCES

- A. Applicable Codes, Laws and Ordinances: Refer also to Section 01 11 00 Summary of Work regarding permits and licenses.
 - 1. Performance of the Work shall meet or exceed the minimum requirements of California Code of Regulations (CCR), Title 24, including the following:
 - a. CCR Title 24, Part 1: 2016 California Administrative Code.
 - b. CCR Title 24, Part 2: 2016 California Building Code (CBC), Based on the 2015 International Building Code (IBC) Volumes 1 and 2.
 - c. CCR Title 24, Part 3: 2016 California Electrical Code (CEC); Based on the 2014 National Electrical Code (NEC), NFPA 70 (NEC).
 - d. CCR Title 24, Part 4: 2016 California Mechanical Code (CMC); Based on the 2015 Uniform Mechanical Code (UMC).
 - e. CCR Title 24, Part 5: 2016 California Plumbing Code (CPC); Based on the 2015 Uniform Plumbing Code (UPC).
 - f. CCR Title 24, Part 6: 2016 California Energy Efficiency Standards (CES).

- g. CCR Title 24, Part 9: 2016 California Fire Code (CFC); Based on the 2015 International Fire Code.
- h. CCR Title 24, Part 11: 2016 California Green Buildings Standards Code (CAL GREEN).
- i. CCR Title 24, Part 12: 2016 California Reference Standards Code.
- j. ADA Title II and III (2010 Standards).
- k. NFPA 13: Automatic Sprinkler Systems, 2016 Edition.
- I. NFPA 72: National Fire Alarm and Signaling Code, 2016 Edition.
- 2. Performance of the Work shall also comply with applicable requirements of California Code of Regulations (CCR) as follows:
 - a. Title 19 C.C.R. Public Safety, SFM Regulations, 2016 edition.
 - b. Title 22 Social Security, 2016 edition.
- 3. References on the Drawings or in the Specifications to "code", "Code" or "building code" similar terms, not otherwise identified, shall mean the codes specified above, together with all additions, amendments, changes, and interpretations adopted by code authorities of the jurisdiction having authority over the Project.
- 4. The applicable edition of all codes shall be that adopted at the time of issuance of permits by the authority having jurisdiction and shall include all modifications and additions adopted by that authority. The applicable date of laws and ordinances shall be that of the date of performance of the Work.
- B. Other Applicable Laws, Ordinances and Regulations:
 - 1. Work shall be accomplished in conformance with all applicable laws, ordinances, rules and regulations of Federal, State, County, City and special district agencies and jurisdictions having authority over the Project.
 - 2. Performance of the Work shall be accomplished in conformance with all rules and regulations of public utilities, utility districts and other agencies serving the facility.
 - 3. Where such laws, ordinances, rules and regulations require more care or greater time to accomplish Work, or require better quality, higher standards or greater size of products, Work shall be accomplished in conformance to such requirements with no change to the Contract Time and Contract Sum, except where changes in laws, ordinances, rules and regulations occur subsequent to the execution date of the Agreement.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 41 00

S201-ITB2, Volume 2 - SECTION 01 42 00 – REFERENCE STANDARDS AND ABBREVIATIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Use of references in Drawings and Specifications, including requirements for copies of reference standards at Project site.
- B. Definitions of terms used in Specifications and Drawings, including abbreviations, acronyms, names and terms which may be used in Specifications.
- 1.03 RELATED SECTIONS
 - A. Section 01 41 00 Regulatory Requirements

1.04 USE OF REFERENCES

- A. References: The Drawings and Specifications contain references to various standards, standard specifications, codes, practices and requirements for products, execution, tests and inspections. These reference standards are published and issued by the agencies, associations, organizations and societies listed in this Section or identified in individual product specification Sections.
 - 1. Wherever term "Agency" occurs in Standard Specifications, it shall be understood to mean the term used for FORA for purposes of the Contract.
 - 2. Wherever term "Engineer" occurs in Standard Specifications, it shall be understood to mean FORA consultant or other responsible design professional for purposes of the Contract.
 - 3. Where reference is made to Standard Details, such reference shall be to the Standard Details accompanying the Standard Specifications.
- B. Relationship to Drawings and Specifications: Such references are incorporated into and made a part of the Drawings and Specifications to the extent applicable.
- C. Referenced Grades Classes and Types: Where an alternative or optional grade, class or type of product or execution is included in a reference but is not identified on the Drawings or in the Specifications, provide the highest, best and greatest of the alternatives or options for the intended use and prevailing conditions.

- D. Copies of Reference Standards:
 - 1. Reference standards are not furnished with the Drawings and Specifications because it is presumed that the Contractor, subcontractors, manufacturers, suppliers, trades and crafts are familiar with these generally-recognized standards of the construction industry.
 - 2. Copies of reference standards may be obtained from publishing sources.
- E. Jobsite Copies:
 - 1. Contractor shall obtain and maintain at the Project site copies of reference standards identified on the Drawings and in the Specifications in order to properly execute the Work.
 - 2. At a minimum, the following shall be readily available at the site, as applicable to the Work:
 - a. State Building Codes: As referenced in Section 01 41 10 Regulatory Requirements.
 - Safety Codes: Occupational Safety and Health Act (OSHA) regulations and State of California, California Administrative Code, California Code of Regulations (CCR), Title 8
 Industrial Relations, Chapter 4, Subchapter 7, General Industry Safety Orders (Cal-OSHA), to extent applicable to the Work.
 - c. General Standards:
 - 1. CCR Title 24, Part 2, Volume 3: 2016 California Building Code (CBC) Material, Testing and Installation Standards.
 - 2. CCR Title 24, Part 12: 2016 California Referenced Standards Code.
 - 3. Underwriters Laboratories, Inc. (UL) Building Products Listing.
 - 4. Factory Mutual Research Organization (FM) Approval Guide.
 - 5. American Society for Testing and Materials (ASTM) Standards in Building Codes.
 - 6. American National Standards Institute (ANSI) standards.
 - d. Fire and Life Safety Standards: All referenced standards pertaining to fire rated construction and exiting.
 - e. Common Materials Standards: American Concrete Institute (ACI), American Institute of Steel Construction (AISC), American Welding Society (AWS), Gypsum Association (GA), National Fire Protection Association (NFPA), Tile Council of America (TCA) and Woodwork Institute of California (WIC) standards to the extent referenced within the Contract Specifications.
 - f. Research Reports: ICC Evaluation Service, Inc. (ICC-ES), formerly ICBO Evaluation Service, Inc. (ICBO ES) Research Reports and National Evaluation Service, Inc. Reports (NER), for products not in conformance to prescribed requirements stated in California Building Code (CBC).
 - g. Product Listings: Approval documentation, indicating approval of authorities having jurisdiction for use of product within the applicable jurisdiction.

- F. Edition Date of References:
 - 1. When an edition or effective date of a reference is not given, it shall be understood to be the current edition or latest revision published as of the date of the Contract Drawings and Contract Specifications.
 - 2. All amendments, changes, errata and supplements as of the effective date shall be included.
- G. ASTM and ANSI References: Specifications and Standards of the American Society for Testing and Materials (ASTM) and the American National Standards Institute (ANSI) are identified in the Drawings and Specifications by abbreviation and number only and may not be further identified by title, date, revision or amendment. It is presumed that the Contractor is familiar with and has access to these nationally- and industry-recognized specifications and standards.

1.05 DEFINITIONS OF TERMS

- A. Basic Contract Definitions: Words and terms governing the Work are defined in the Contract Agreement.
- B. Words and Terms Used on Drawings and in Specifications: Additional words and terms may be used in the Drawings and Specifications and are defined as follows:
 - 1. "Applicable:" As appropriate for the particular condition, circumstance or situation.
 - 2. "Approve(d):" Approval action shall be limited to the duties and responsibilities of the party giving approval, as stated in the Conditions of the Contract. Approvals shall be valid only if obtained in writing and shall not apply to matters regarding the means, methods, techniques, sequences and procedures of construction. Approval shall not relieve the Contractor from responsibility to fulfill Contract requirements.
 - 3. "And/or:" If used, shall mean that either or both of the items so joined are required.
 - 4. "Directed:" Limited to duties and responsibilities of the FORA Construction Manager as stated in the Contract Agreement, meaning "as instructed by the FORA Construction Manager, in writing, regarding matters other than the means, methods, techniques, sequences and procedures of construction. Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by FORA or the FORA Construction Manager", "requested by FORA or the FORA Construction Manager", "requested by FORA or the FORA Construction Manager", and similar phrases. No implied meaning shall be interpreted to extend the responsibility of the FORA Construction Manager or FORA's consultants into the Contractor's supervision of construction.
 - 5. "Equal" or "Equivalent:" As determined by FORA Construction Manager or other responsible design professional as being equivalent, considering such attributes as durability, finish, function, suitability, quality, utility, performance and aesthetic features.
 - 6. "Furnish:" Means "supply and deliver, to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."
 - 7. "Indicated:" The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other Paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as "shown", "noted", "scheduled", and "specified" are used to help the reader locate the reference. There is no limitation on location.

- 8. "Install:" Describes operations at the Project site including the actual unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations.
- 9. "Installer:"
 - a. "Installer" refers to the Contractor or an entity engaged by the Contractor, such as an employee, subcontractor, or sub-subcontractor for performance of a particular construction activity, including installation, erection, application and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - b. "Experienced Installer:" The term "experienced," when used with "installer" means having a minimum of five (5) previous Projects similar in size to this Project, knowing the precautions necessary to perform the Work, and being familiar with requirements of authorities having jurisdiction over the Work.
- 10. "Jobsite:" Same as site.
- 11. "Necessary:" With due considerations of the conditions of the Project and as determined in the professional judgment of the FORA Construction Manager or other responsible design professional as being necessary for performance of the Work in conformance with the requirements of the Contract Documents, but excluding matters regarding the means, methods, techniques, sequences and procedures of construction.
- 12. "Noted:" Same as "Indicated."
- 13. "Per:" Same as "in accordance with," "according to" or "in compliance with."
- 14. "Products:" Material, system or equipment.
- 15. "Project Site:" Same as "Site."
- 16. "Proper:" As determined by the or other responsible design professional as being proper for the Work, excluding matters regarding the means, methods, techniques, sequences and procedures of construction, which are solely the Contractor's responsibility to determine.
- 17. "Provide:" Means "furnish and install, complete and ready for the intended use."
- 18. "Regulation:" Includes laws, ordinances, statutes and lawful orders issued by authorities having jurisdiction, as well as and rules, conventions and agreements within the construction industry that control performance of the Work.
- 19. "Required:" Necessary for performance of the Work in conformance with the requirements of the Contract Documents, excluding matters regarding the means, methods, techniques, sequences and procedures of construction, such as:
 - a. Regulatory requirements of authorities having jurisdiction.
 - b. Requirements of referenced standards.
 - c. Requirements generally recognized as accepted construction practices of the locale.
 - d. Notes, schedules and graphic representations on the Drawings.
 - e. Requirements specified or referenced in the Specifications.
 - f. Duties and responsibilities stated in the Bidding and Contract Requirements.
- 20. "Scheduled:" Same as "Indicated."

- 21. "Selected:" As selected by FORA or the FORA Construction Manager or other responsible design professional from the full selection of the manufacturer's products, unless specifically limited in the Contract Documents to a particular quality, color, texture or price range.
- 22. "Shown:" Same as "Indicated."
- 23. "Site:" Same as "Site of the Work" or "Project Site;" the area or areas or spaces occupied by the Project and including adjacent areas and other related areas occupied or used by the Contractor for construction activities, either exclusively or with others performing other construction on the Project. The extent of the Project Site is shown on the Drawings, and may or may not be identical with the description of the land upon which the Project is to be built.
- 24. "Supply:" See "Furnish."
- 25. "Testing Laboratory" or "Testing Laboratories:" An independent entity engaged to perform specific inspections or tests, at the Project Site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests. Refer to Section 01 45 80 Testing Laboratory Services.
- 26. "Testing and Inspection Agency:" Same as "Testing Laboratory."
- 1.06 ABBREVIATIONS, ACRONYMS, NAMES AND TERMS, GENERAL
 - A. Abbreviations, Acronyms, Names and Terms: Where acronyms, abbreviations, names and terms are used in the Drawings, Specifications or other Contract Documents, they shall mean the recognized name of the trade association, standards generating organization, authority having jurisdiction or other entity applicable.
 - B. Abbreviations, General: The following are commonly-used abbreviations which may be found on the Drawings or in the Specifications:

AC or ac AMP or amp C CFM or cfm CM or cm CY or cy DC or dc DEG or deg F FPM or fpm FPS or fps FT or ft Gal or gal GPM or gpm IN or in Kip or kip KSI or ksi KSF or ksf KV or kv	Alternating current or air conditioning (depending upon context) Ampere Celsius Cubic feet per minute Centimeter Cubic yard Direct current Degrees Fahrenheit Feet per minute Feet per second Foot or feet Gallons Gallons per minute Inch or inches Thousand pounds per square inch Thousand pounds per square foot Kilovolt
KSF or kst KV or kv KVA or kva	
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KW or kw	Kilowatt
KWH or kwh	Kilowatt hour
LBF or lbf	ounds force
LF or lf	Lineal foot
M or m	Meter
MPH or mph	Miles per hour
MM or mm	Millimeter
PCF or pcf	Pounds per cubic foot
PSF or psf	Pounds per square foot
PSI or psi	Pounds per square inch
PSY or psy	Per square yard
SF or sf	Square foot
SY or sy	Square yard
V or v	Volts

- C. Abbreviations and Acronyms for Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."
- D. Undefined Abbreviations, Acronyms, Names and Terms: Words and terms not otherwise specifically defined in this Section, in the Instructions to Bidders, in the Contract General Conditions, on the Drawings or elsewhere in the Specifications, shall be as customarily defined by trade or industry practice, by reference standard and by specialty dictionaries such as the following:
 - 1. <u>Dictionary of Architecture and Construction, Third Edition</u> (Cyril M. Harris, McGraw-Hill Book Company, 2000).
 - 2. The American Institute of Architects (AIA) Document M101, "Glossary of Construction Industry Terms."
 - 3. <u>Encyclopedia of Associations</u>, published by Gale Research Co., commonly available in public libraries.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 42 00

S201-ITB2, Volume 2 - SECTION 01 45 00 – QUALITY CONTROL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Regulatory requirements for testing and inspection.
- B. Contractor's quality control.
- C. Quality of the Work.
- D. Inspections and tests by authorities having jurisdiction.
- E. Inspections and tests by serving utilities.
- F. Inspections and tests by manufacturer's representatives.

1.03 RELATED SECTIONS

- A. Section 01 41 00 Regulatory Requirements.
- B. Section 014 58 Testing Laboratory Services.

1.04 REGULATORY REQUIREMENTS FOR TESTING AND INSPECTION

- A. Building Code Requirements: Comply with requirements for testing and inspections in the California Building Code (CBC), as interpreted by authorities having jurisdiction. Additional requirements for testing and inspection, as adopted by authorities having jurisdiction, shall be included in the Contract Sum and Contract Time.
- B. Requirements of Fire Regulations: Comply with testing and inspection requirements of the Fire Marshal having jurisdiction. All tests and inspections shall be included in Contract Sum and Contract Time.

1.05 CONTRACTOR'S QUALITY CONTROL

- A. Contractor's Quality Control: Contractor shall ensure that products, services, workmanship and site conditions comply with requirements of the Drawings and Specifications by coordinating, supervising, testing and inspecting the Work and by utilizing only suitably qualified personnel.
- B. Quality Requirements: Work shall be accomplished in accordance with quality requirements of the Drawings and Specifications, including, by reference, all Codes, laws, rules, regulations and standards. When no quality basis is prescribed, the quality shall be in accordance with the best accepted practices of the construction industry for the locale of the Project, for projects of this type.

- C. Quality Control Personnel: Contractor shall employ and assign knowledgeable and skilled personnel as necessary to perform quality control functions to ensure that the Work is provided as required.
- D. Coordination of Field Quality Control: Contractor shall coordinate and schedule field quality control activities of FORA's independent testing and inspection agency and inspectors from authorities having jurisdiction.

1.06 QUALITY OF THE WORK

- A. Quality of Products: Unless otherwise indicated or specified, all products shall be new, free of defects and fit for the intended use.
- B. Quality of Installation: All Work shall be produced plumb, level, square and true, or true to indicated angle, and with proper alignment and relationship between the various elements.
- C. Protection of Existing and Completed Work: Take all measures necessary to preserve and protect existing and completed Work free from damage, deterioration, soiling and staining, until Acceptance by the FORA Construction Manager.
- D. Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Unless more stringent requirements are indicated or specified, comply with manufacturer's instructions and recommendations, reference standards and building code research report requirements in preparing, fabricating, erecting, installing, applying, connecting and finishing Work.
- E. Deviations from Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Document and explain all deviations from reference standards and building code research report requirements and manufacturer's product installation instructions and recommendations, including acknowledgement by the manufacturer that such deviations are acceptable and appropriate for the Project.
- F. Verification of Quality: Work shall be subject to verification of quality by FORA Construction Manager or by FORA Certified Industrial Hygienist in accordance with provisions of the Contract Agreement.
 - 1. Contractor shall cooperate by making Work available for inspections and observations by FORA Construction Manager or by FORA Certified Industrial Hygienist and FORA's consultants.
 - 2. Such verification may include mill, plant, shop, or field inspection, as required.
 - 3. Provide access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.
 - 4. Provide all information and assistance as necessary, including that from subcontractors, fabricators, materials suppliers and manufacturers, for verification of quality by FORA Construction Manager.
 - 5. Contract modifications, if any, resulting from such verification activities shall be governed by applicable provisions in the Contract Agreement.
- G. Observations by FORA and/or FORA Construction Manager and/ or by FORA Certified Industrial Hygienist: Periodic and occasional observations of Work in progress will be made by FORA Construction Manager as deemed necessary to review progress of Work and general

conformance with the design intent.

- H. Limitations on Inspection, Test and Observations: Employment of an independent testing and inspection agency and observations by FORA Construction Manager shall not relieve Contractor of the obligation to perform Work in full conformance to all requirements of Contract Documents and applicable Building Code and other regulatory requirements.
- I. Rejection of Work: FORA and FORA Construction Manager or by FORA Certified Industrial Hygienist reserves the right to reject any and all Work not in conformance to the requirements of the Contract Documents.
- J. Correction of Non-Conforming Work: Non-conforming Work shall be modified, replaced, repaired or redone by the Contractor at no change in Contract Sum or Contract Time.
- K. Acceptance of Non-Conforming Work: Acceptance of non-conforming Work, without specific written acknowledgement and approval of the FORA Construction Manager, shall not relieve the Contractor of the obligation to correct such Work.
- L. Contract Adjustment for Non-conforming Work: Should FORA Construction Manager determine that it is not feasible or not in FORA's interest to require non-conforming Work to be repaired or replaced, an equitable reduction in Contract Sum shall be made by agreement between FORA Construction Manager and Contractor.
- M. Non-Responsibility for Non-Conforming Work: Architect and Architect's consultants disclaim any and all responsibility for Work produced that is not in conformance with the Contract Drawings and Contract Specifications.

1.07 INSPECTIONS AND TESTS BY AUTHORITIES HAVING JURISDICTION

- A. Inspections and Tests by Authorities Having Jurisdiction: Contractor shall cause all tests and inspections required by authorities having jurisdiction to be made for Work under this Contract.
 - 1. Except as specifically noted, scheduling, coordinating and conducting such inspections and tests shall be solely the Contractor's responsibility.
 - 2. All time required for inspections and tests by authorities having jurisdiction shall be included in the Contract Time.
 - 3. Costs for inspections and tests by authorities having jurisdiction will be paid by FORA.

1.08 INSPECTIONS AND TESTS BY SERVING UTILITIES

- A. Inspections and Tests by Serving Utilities: Contractor shall cause all tests and inspections required by serving utilities to be made for Work under the Contract.
 - 1. Except as specifically noted, scheduling, coordinating and conducting such inspections and tests shall be solely the Contractor's responsibility. All time required for inspections and tests by serving utilities shall be included in the Contract Time.
 - 2. Except as specifically noted, all costs for inspections and tests by serving utilities shall be included in the Contract Sum.

1.09 INSPECTIONS AND TESTS BY MANUFACTURER'S REPRESENTATIVES

- A. Inspections and Tests by Manufacturer's Representatives: Contractor shall cause all specified tests and inspections to be conducted by materials or systems manufacturers. Additionally, all tests and inspections required by materials or systems manufacturers as conditions of warranty or certification of Work shall be made, the cost of which shall be included in the Contract Sum.
 - 1. Scheduling, coordinating and conducting such inspections and tests shall be solely the Contractor's responsibility. All time required for inspections and tests by manufacturer's representatives shall be included in the Contract Time.
 - 2. All costs for inspections and tests by manufacturer's representatives shall be included in the Contract Sum.
- 1.1 INSPECTIONS BY INDEPENDENT TESTING AND INSPECTION AGENCY
 - A. Inspections by independent Testing Laboratory: Refer to Section 01 45 80 Testing Laboratory Services.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 45 00

S201-ITB2, Volume 2 - SECTION 01 1 45 80 – TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Administrative and procedural requirements for quality control services.
 - 1. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, and governing authorities. They do not include Contract enforcement activities performed by the FORA Construction Manager.
 - 2. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
 - 3. This section covers the Geotechnical Testing required on this project. Additional Testing be required by the Contractor as it related to Hazardous Materials and will be covered in additional sections.

1.03 RELATED SECTIONS

- A. Section 01 45 00 Quality Control.
- B. Individual Product Specifications Sections: Specific requirements for inspections and tests.

1.04 RESPONSIBILITIES

- A. Testing Laboratory: FORA will engage and pay for the services of an independent agency to perform inspections and tests specified as the FOR A's responsibility.
 - 1. Where FORA have engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Trustees, unless otherwise agreed in writing with the Trustees.
- B. Retesting: The Contractor is responsible for the cost of retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's
 - 1. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
- C. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested.

- D. Coordination: The Contractor, Project Manager/Inspector, and each agency engaged to perform inspections, testing and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition the Contractor shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 - 1. The Contractor is responsible for communicating to the Project Manager/Inspector the scheduling times for inspections, tests, taking samples and similar activities.
- E. Payment for Testing Laboratory Services:
 - 1. Unless otherwise specified, Trustees will pay for tests and inspections performed by Testing Laboratory, as specified in individual product Sections of the Specifications. Overtime costs due to scheduling for the convenience of the Contractor or to make up for Work behind schedule shall be deducted by Change Order from Contract Sum.
 - 2. When tests and inspections are required on an overtime basis, initial payment will be made by FORA. All costs for overtime testing and inspections shall be deducted by Change Order from Contract Sum.
 - 3. Unless otherwise specified, Contractor shall be back-charged for mileage and travel time for inspection services requiring more than 60 miles from Project site to test products purchased by Contractor.
 - a. Testing laboratory shall forward all billings and records of such costs to FORA Construction Manager for approval.
 - b. Such costs, if determined by FORA Construction Manager to be attributable to the Contractor under this provision, shall be deducted by Change Order from Contract Sum.
 - 4. Contractor shall pay all costs for repeated observations, reinspection or retesting by Testing Laboratory due to non-conforming Work. Costs shall be deducted by Change Order from Contract Sum.
 - 5. Additional Tests, Inspections and Related Services: Contractor shall be charged costs for additional tests, inspections and related services, due to the following. Such costs shall be deducted by Change Order from Contract Sum.
 - a. Work is not ready to inspect when inspectors arrive.
 - b. Failure to properly schedule or notify testing and inspection agency or authorities having jurisdiction.
 - c. Changes in sources, lots or suppliers of products after original tests or inspections.
 - d. Changes in means methods, techniques, sequences and procedures of construction that necessitate additional testing, inspection and related services.
 - e. Changes in mix designs for concrete and mortar after review and acceptance of submitted mix design.
 - f. Multiple off-site fabrication sites.
 - g. Fabrication and installation errors.
 - h. Inefficient, sporadic, or poorly organized manufacturing that causes additional testing costs to be incurred.

- F. Segregation in Billing of Overtime Services: Billings for overtime services shall have straight time and overtime costs segregated and shall have substantiation by detailed explanations justifying necessity of services on overtime basis.
- G. Obligation to Perform Work According to Contract Documents: Employment of Testing Laboratory shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents and applicable Codes.
- H. Limits on Testing Laboratory's Authority:
 - 1. Testing Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Testing Laboratory may not approve or accept any portion of the Work.
 - 3. Testing Laboratory may not assume any duties of Contractor.
 - 4. Testing Laboratory shall have no authority to stop Work.
- I. Contractor's Responsibilities to Testing Laboratory: Contractor shall make the Work in all stages of progress available for personal and continuous observation by the Testing Laboratory.
 - 1. Testing Laboratory shall have free access to any and all parts of the Work at all times.
 - 2. Contractor shall provide the Testing Laboratory with reasonable facilities for Testing Laboratory to obtain such information as Testing Laboratory determines is necessary for Testing Laboratory to be kept fully informed of the progress and manner of performance of the Work and character of products, according to Testing Laboratory's duties and responsibilities.
 - 3. Observation and inspection of the Work by Testing Laboratory shall not relieve Contractor from any obligation to fulfill the requirements of the Contract.
- J. Retesting: When materials tested fall to meet requirements herein specified, they shall be promptly corrected or removed and replaced and retested in a manner required by FORA Construction Manager. Costs involved in retesting shall be deducted by Change Order from Contract Sum.

1.05 TESTS AND INSPECTIONS

- A. Tests and Inspections, General: All construction work shall be subject to inspection by the Trustees and the Architect and all such construction or work shall remain accessible and exposed for inspection purposes until approved by FORA.
 - 1. FORA Construction Manager will provide project personnel, including inspectors, to be available at the project site.
 - 2. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of the building code or of other ordinances of the jurisdiction, including plans and specifications. Inspections presuming to give authority to violate or cancel the provisions of code, or of plans and specifications shall not be valid.
 - 3. It shall be the duty of the Contractor to cause the work to remain accessible and exposed for inspection purposes. Neither the Inspector nor the Trustees or Architect shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

- B. Inspection Requests: It shall be the duty of the Contractor doing the work to notify the Inspector that such work is ready for inspection. FORA requires that such work is ready for inspection. FORA requires that every request for inspection be filed at least two working days before such inspection is desired. Such requests shall be in writing.
- C. Approval Required: Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the Inspector. The Inspector, upon notification, shall make the requested inspections and shall either indicate in writing that portion of the construction is satisfactory as completed, or shall notify the Contractor that same fails to comply with plans and specifications. Any portions of Work that do not comply shall be corrected by the Contractor, and such portion shall not be covered or concealed until authorized by the Inspector.
 - 1. There shall be a final inspection and approval of all buildings and structures when completed and ready for occupancy and use.
- D. Inspection Coordination: Contractor shall provide, on a weekly basis, an anticipated Inspection Requirements Schedule, coordinated with the three-week look ahead schedule, showing the anticipated inspection needs for the following three weeks to facilitate appropriate campus coordination and interface as well as mobilization of required inspection staffing.
- E. Required Inspections:
 - 1. The Contractor shall be responsible for reviewing all of the Contract Documents for all inspection requirements.

1.06 SUBMITTALS

- A. Reports: FORA's independent testing agency shall submit a certified written report of each inspection, test or similar service, to FORA Construction Manager (two copies), FORA, and the Contractor (two copies).
- B. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
 - Date of issue Project title and number Name, address and telephone number of testing agency Dates and locations of samples and tests or inspections Names of individuals making the inspection or test Designation of the Work and test method Identification of product and Specification Section Complete inspection or test data Test results and an interpretation of test results Ambient conditions at the time of sample-taking and testing Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements Name and signature of laboratory inspector Recommendations on retesting.

1.07 SCHEDULES FOR TESTING

- C. Testing and Inspection Schedule: After discussion with FORA Construction Manager and Testing Laboratory in advance of performance of testing and inspection services, Contractor shall determine dates and times necessary for Testing Laboratory to schedule performance of required tests and inspections and determine due dates for issuance of reports.
- D. Revising Testing and Inspection Schedule: When changes of the construction schedule are necessary during construction, coordinate all such changes of schedule with the testing laboratory as required.
- E. Adherence to Testing and Inspection Schedule: When the Testing Laboratory is ready to test according to the determined schedule but is prevented from testing or taking specimens due to incompleteness of the work, all extra costs for testing attributed to the delay may be back-charged to the Contractor and shall not be borne by the FORA.

1.08 CONTRACTOR'S RESPONSIBILITIES

- A. Contractor's Responsibilities for Inspections and Tests:
 - 1. Notify FORA Construction Manager and Testing Laboratory two working days in advance of expected time for operations requiring inspection and testing services.
 - 2. Deliver to Testing Laboratory or designated location, adequate samples of materials proposed to be used which require advance testing, together with proposed mix designs.
 - 3. Cooperate with FORA Construction Manager, Testing Laboratory, Project Inspector, and FORA's consultants. Provide access to Work areas and off-site fabrication and assembly locations, including during weekends and after normal work hours.
 - 4. Provide incidental labor and facilities to provide safe access to Work to be inspected and tested, to obtain and handle samples at the Work site or at source of products to be tested, and to store and cure test samples.
 - 5. Provide at least 15 days in advance of first inspection or test of each type, a schedule of tests or inspections indicating types of tests or inspections and their scheduled dates.
 - 6. Provide two working days notice to FORA Construction Manager, and, as applicable, responsible design consultant, of each test and inspection.

1.09 INSPECTIONS TESTS BY OTHERS

- A. Inspections by Others: Refer to Section 01 45 00 Quality Control.
- B. Tests by Others: Refer to Section 01 45 00 Quality Control.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 REPAIR AND PROTECTION

- A. Repair and Protection: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."
 - 1. Protect construction exposed by or for quality control service activities, and protect repaired construction.
 - 2. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

END OF SECTION 01 45 80

S201-ITB2, Volume 2 - SECTION 01 51 00 - TEMPORARY UTILITIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- B. Temporary utilities and services, including:
 - 1. Heating and cooling during construction
 - 2. Ventilation during construction
 - 3. Temporary water service
 - 4. Temporary sanitary facilities
 - 5. Temporary power and lighting
 - 6. Construction telephone service.
- C. Removal of temporary utilities.

1.03 RELATED SECTIONS

D. Section 01 11 00 - Summary of the Work

1.1 SUBMITTALS

A. Temporary Utilities: Submit reports of tests, inspections, applicable meter readings and similar procedures performed on temporary utilities.

1.04 TEMPORARY UTILITIES AND SERVICES

- B. Temporary Utilities and Services, General: All utilities and other services necessary for proper performance of the Work shall be provided by Contractor, unless specifically noted otherwise. Temporary utilities and services shall conform to all applicable requirements of authorities having jurisdiction and serving utility companies and agencies, including the following:
 - 1. Requirements of authorities having jurisdiction, including:
 - a. Cal OSHA
 - b. California Building Code (CBC) requirements
 - c. Health and safety regulations
 - d. Utility agency and company regulations
 - d. Police, Fire Department and Rescue Squad rules

- e. Environmental protection regulations
- 2. Standards:
 - a. NFPA Document 241 Building Construction and Demolition Activities.
 - b. ANSI A10 Series Safety Requirements for Construction and Demolition.
 - c. NECA Electrical Design Library Temporary Electrical Facilities.
 - d. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with California Electrical Code (CEC).
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.
- D. Temporary Connections and Fees: Contractor shall arrange for services and pay all fees and service charges for temporary power, water, sewer, gas and other utility services necessary for the Work.
 - 1. Contractor shall apply for and obtain permits for temporary utilities, including permits for temporary generators, from authorities having jurisdiction.
 - 1. All costs for temporary connections, including fees charged by serving utilities, shall be included in Contract Sum.
- D. Use of Temporary Utilities: Enforce strict discipline in use of temporary utilities to conserve on consumption. Limit use of temporary utilities to essential and intended uses to minimize waste and abuse.

1.05 PROJECT CONDITIONS

A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on the site.

1.06 TEMPORARY WATER SERVICE

- A. Water Service: Water may be taken from existing system with metering provided by Marina Coast Water District. Water may be taken in such quantities and at such times as they are available. Point of connection for water service shall be coordinated with the FORA Construction Manager and Marina Coast Water District. Use charges for temporary water facilities are not chargeable to the FORA or FORA's consultants and shall be included in the Contract Sum. Contractor shall furnish, install, and maintain all temporary supply connections, meters, piping, fittings, etc., as necessary for the Work. Before final acceptance, all temporary connections and piping installed by Contractor shall be removed in a manner approved by the FORA Construction Manager.
 - 1. Install necessary source protection and meter at the point of connection to water system.
 - 2. Drinking water shall be furnished by the Contractor.

3. Obtain approval from the FORA and the Federal (Naval Support Activity) Fire Department prior to using fire hydrants as a water supply. All water drawn from fire hydrants shall be metered by the Contractor.

1.07 TEMPORARY SANITARY FACILITIES

- B. Temporary Sanitary Facilities: Provide and maintain adequate temporary sanitary facilities and enclosures for use by construction personnel.
 - 2. Number of temporary toilets shall be suitable for number of workers.
 - 3. Provide wash-up sink with soap, towels and waste disposal.
- C. Use of Permanent Sanitary Facilities: Do not use permanent sanitary facilities.

1.08 TEMPORARY POWER AND LIGHTING

- A. Temporary Electric Power Service: Electricity shall be taken from the existing system as available. Coordinate the installation with the FORA Construction Manager, as applicable, to identify point of connection and metering location(s).
 - 1. Furnish, install, and maintain all necessary temporary electrical equipment, meter(s), connections, etc., as necessary for the Work. All temporary and permanent power used by the Contractor on this project shall be drawn and metered from no more than a maximum of 2 meters. Points of connection to the existing electrical system shall be coordinated with the FORA Construction Manager. Before final acceptance, all temporary equipment and connections installed by Contractor shall be removed in a manner approved by the FORA Construction Manager.
 - 2. Service connections shall be made by Contractor to the existing electrical distribution system. Provide meter, conduit and wires, drops, circuit breakers, and disconnect switches as required. Characteristics of current are limited to that existing and available; if current or other characteristics or quantity is required by Contractor, Contractor shall supply the power as necessary at no extra cost to the FORA.
 - a. Provide ground fault circuit interrupters and reset button with pilot light for plug-in connection of power hand tools. All extension cords shall be "hard-service" cords where exposed to traffic and abrasion.
 - b. Provide temporary lighting for Work in progress, inspection, protection, and security at the following minimum levels:
 - General construction open floor area lighting; 1 200 watt lamp per each open 1,000 square feet to achieve uniform illumination.
 - 2) Corridors and similar traffic areas: 1 100 watt lamp per each 50 lineal feet.
 - 3) Stairways, ladder runs, and similar traffic areas: 1 75 watt lamp located to illuminate each landing and flight.
 - 3. At Contractor's own expense, Contractor shall repair and make good all damage to existing electrical facilities caused by Contractor's use, as requested and approved.
- B. Protection: Provide weatherproof enclosures for power and lighting components as necessary. Provide overcurrent and ground-fault circuit protection, branch wiring and

distribution boxes located to allow convenient and safe service about site of the Work. Provide flexible power cords as required.

C. Service Disruptions: When necessary for energizing and de-energizing temporary electric power systems, minimize disruption of service to those served by public mains. Schedule transfers at times convenient to neighboring occupants.

1.09 CONSTRUCTION TELEPHONE SERVICE

- A. Construction Telephone Service: Provide telephone service to Contractor's field staff by means of cellular telephones, pagers and radio service, to enable communications between FORA Construction Manager and Contractor.
 - 1. Include voice message service and paging services.
 - 2. All costs of construction telephone, paging and radio services shall be included in Contract Sum.

PART 2 - PRODUCTS

- 2.01 MATERIALS AND EQUIPMENT
 - A. Materials: Contractor shall provide new materials. If acceptable to the FORA Construction Manager, undamaged previously used materials in serviceable condition may be used. Provide materials that are suitable for the use intended. Their use and methods of installation shall not create unsafe conditions or violate requirements of applicable codes and standards.
 - B. Equipment: Contractor shall provide new equipment; or, if acceptable to the Trustees, Contractor may provide undamaged, previously used equipment in serviceable condition. Provide equipment that is suitable for use intended.

PART 3 - EXECUTION

3.01 TEMPORARY UTILITIES INSTALLATION

- A. Temporary Utilities Installation, General: Contractor shall engage the appropriate local utility company or personnel to install temporary service or connect to existing service.
 - 1. Use Charges: Cost or use charges for temporary facilities are the Contractor's responsibility.
 - 2. Allowance for Utilities Charges: When Contract includes an allowance for metering of utility services, whether through temporary or permanent facilities, unused amount shall be returned to the FORA by deductive change order.
- B. Temporary Electric Power Service: The Contractor must arrange and pay for electric service through the local utility or furnish his own portable power. All permanent power used by the Contractor prior to Occupancy by the FORA shall be metered and paid for by the Contractor.
- C. Temporary Telephones: Contractor shall have telephone facility available at its business office for the duration of contract where the Contractor and its superintendent may be contacted.
- D. Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities,

Contractor shall install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Contractor shall comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations." Contractor shall:

- 1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
- 2. Store combustible materials in containers in fire-safe locations.
- 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
- 4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
- E. Maintenance of Temporary Utilities and Services: Contractor shall maintain temporary utilities and services in good operating condition until removal. Contractor shall protect from utilities and services from environmental and physical damage.

3.02 3TERMINATION AND REMOVAL OF TEMPORARY UTILITIES AND SERVICES

- F. Termination and Removal of Temporary Utilities and Services: Unless the FORA Construction Manager requires that it be maintained longer, Contractor shall remove each temporary facility when the need has ended.
- G. Removal of Temporary Underground Utilities and Restoration: Remove temporary underground utility installations to a minimum depth of two-feet below utility services. Contractor shall:
 - 1. Backfill, compact and regrade site as necessary to restore areas or to prepare for indicated paving and landscaping.
 - 2. Restore paving damaged by temporary utilities. Refer to requirements specified in Section 01 73 20 Cutting and Patching Requirements.
- H. Cleaning and Repairs: Contractor shall clean exposed surfaces and repair damage caused by installation and use of temporary utilities and services. Where determined by FORA Construction Manager that repair of damage is unsatisfactory, Work, Contractor shall replace construction with matching finishes. Refer to requirements specified in Section 01 73 20 -Cutting and Patching Requirements.

END OF SECTION 01 51 00

S201-ITB2, Volume 2 - SECTION 01 52 00 – CONSTRUCTION FACILITIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Field offices and sheds.
- B. Removal of construction facilities.

1.03 1.1 RELATED SECTIONS

- A. Section 01 11 00 Summary of the Work
- B. Section 01 51 00 Temporary Utilities
- C. Section 01 52 50 Construction Staging Areas
- D. Section 01 74 00 Cleaning Requirements

1.04 MAINTENANCE OF CONSTRUCTION FACILITIES CONTROLS

- A. Maintenance: Contractor shall use all means necessary to maintain construction facilities in proper and safe condition throughout progress of the Work.
- B. Replacement: In the event of loss or damage, Contractor shall promptly restore temporary construction facilities by repair or replacement at no change in the Contract Sum or Contract Time.

1.05 CONTRACTOR'S FIELD OFFICES AND SHEDS

- A. Contractor's Field Office: Contractor shall provide a mobile field office of weather-tight construction, with lighting, power, ventilation, heating and cooling to house Contractor. Unless otherwise indicated on the Drawings, Contractor shall locate field office at in staging area described in Section 01 52 50 Construction Staging Areas. Contractor shall comply with FORA's requirements transmitted through FORA Construction Manager.
 - 1. Contractor shall provide temporary utilities to serve Contractor's field office. Refer to Section 01 51 00 Temporary Utilities.
 - 2. Contractor's Field Office shall present neat, business-like appearance at all times, internally and externally.
 - 3. Contractor shall ensure that neither Contractor's Field Office nor other jobsite facilities are used for living quarters.
- B. Storage Sheds for Tools, Materials, and Equipment: Contractor shall provide weather-tight sheds, all with the following:

- 1. heat and ventilation appropriate for storage of products requiring controlled conditions,
- 2. adequate space for organized storage and access, and
- 3. lighting for inspection of stored materials.
- C. Layout of Field Offices and Sheds: Within five working days of the Notice to Proceed, Contractor shall submit to FORA Construction Manager a proposed layout for field offices, sheds and storage areas. FORA Construction Manager will review and respond within five working days with comments and directions. Contractor shall comply with directions of FORA Construction Manager.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

- 3.01 INSTALLATION OF CONSTRUCTION FACILITIES
 - A. Layout of Field Offices and Sheds: Within five working days of the Notice to Proceed, Contractor shall submit to FORA Construction Manager a proposed layout for field offices, sheds and storage areas. FORA Construction Manager will review and respond within five working days with comments and directions. Contractor shall comply with directions of FORA Construction Manager.
 - 1. Coordinate with requirements specified in Section 01 52 50 Construction Staging Areas.
 - 2. Coordinate installation of construction fencing as specified in Section 01 56 00 Temporary Barriers and Enclosures.

3.02 EMOVAL OF CONSTRUCTION FACILITIES

- B. Removal of Construction Facilities: Unless otherwise mutually agreed by FORA Construction Manager and Contractor, remove temporary materials, equipment, services, and construction prior to Contract Completion review.
 - 3. Coordinate removal with requirements specified in Section 01 51 00 Temporary Utilities, Section 01 52 00 Construction Facilities, Section 01 55 00 Vehicular Access and Parking and Section 01 56 00 Temporary Barriers and Enclosures.
 - 4. Completely remove in-ground construction facilities to minimum depth of two feet. Backfill, compact and regrade site as necessary to restore areas or to prepare for indicated paving and landscaping.
- C. Cleaning and Repairs: Clean and repair damage caused by installation or use of temporary construction facilities on public and private rights-of-way.

END OF SECTION 01 52 00

S201-ITB2, Volume 2 - SECTION 01 52 50 – CONSTRUCTION STAGING AREAS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

B. Contractor Staging Area requirements.

1.03 RELATED SECTIONS

- C. Section 01 11 00 Summary of the Work
- B. Section 01 54 10 Security
- C. Section 01 55 00 Vehicular Access and Parking
- D. Section 01 56 00 Temporary Barriers and Enclosures
- E. Section 01 57 00 Temporary Controls

1.04 SUBMITTALS

- D. Shop Drawings: Prior to site mobilization, Contractor shall prepare and submit for review by FORA Construction Manager a site plan indicating detailed layout of Contractor Staging Area, including:
 - 1. Temporary utilities
 - 2. Temporary fencing and gates
 - 3. Temporary offices and sheds
 - 4. Construction aids
 - 5. Vehicular accessways and on-site parking
 - 6. Temporary barriers and enclosures
 - 7. Storm water pollution prevention measures

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 CONTRACTOR STAGING AREA REQUIREMENTS

- A. Contractor Staging Areas: Contractor Staging Areas shall be contained within the Limits of Work as noted on the Drawings.
 - 8. Contractor shall use only site areas designated specifically the FORA Construction Manager as Contractor Staging Area for the Project.
 - 9. Contractor Staging Area for the Project shall be clearly indicated. Contractor shall remove equipment placed or located outside of areas designated for Contractor Staging Area to within Contractor Staging Area at no change in Contract Time and Contract Sum.
 - 10. Contractor shall keep access to Contractor Staging Areas and other construction accessways and thoroughfares clear at all times. Contractor shall provide traffic and parking control signage acceptable to FORA Construction Manager.
- B. Cleanliness: Contractor shall keep Contractor Staging Area clear of trash and debris and in neat order. Contractor shall be responsible for cleanliness and order of assigned Contractor Staging Areas, as acceptable to FORA Construction Manager.

3.02 REMOVAL OF CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

- A. Removal of Construction Facilities and Temporary Controls: Unless otherwise mutually agreed by FORA Construction Manager and Contractor, Contractor shall remove temporary materials, equipment, services, and construction prior to Contract Completion review. Contractor shall coordinate removal with requirements specified in Section 01 51 00 -Temporary Utilities, Section 01 52 00 - Construction Facilities, Section 01 55 00 - Vehicular Access and Parking and Section 01 56 00 - Temporary Barriers and Enclosures.
- B. Cleaning and Repairs: Contractor shall clean and repair damage caused by installation or use of temporary facilities on public and private rights-of-way.
- C. Removal of Temporary Utilities and Restoration: Contractor shall remove temporary underground utility installations to a depth of two feet. Backfill, compact and regrade site as necessary to restore areas or to prepare for indicated paving and landscaping.

END OF SECTION 01 52 50

S201-ITB2, Volume 2 - SECTION 01 54 00 - CONSTRUCTION AIDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Construction aids, including:
 - 1. Temporary lifts and hoists
 - 2. Debris chutes
 - 3. Temporary stairs
 - 4. Scaffolding

1.03 RELATED SECTIONS

- A. Section 01 11 00 Summary of the Work
- B. Section 01 56 00 Temporary Barriers and Enclosures

1.04 CODES AND REGULATIONS

A. Safety Regulations: Contractor shall comply with requirements of all applicable Federal, State and local safety rules and regulations. Contractor shall be solely responsible for jobsite safety.

1.05 TEMPORARY LIFTS AND HOISTS

A. Temporary Lifts and Hoists: Contractor shall provide facilities for hoisting materials and personnel. Mobile lifts and truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

1.06 DEBRIS CHUTES

- A. Debris Chutes: Contractor shall provide chutes as necessary for debris removal. Contractor shall:
 - 1. Construct debris chutes of substantial materials. Use cylindrical, laminated fiber forms (Sonotube_or equal) to minimize noise of debris removal.
 - 2. Provide controls at debris chutes to minimize spread of dust and debris.
 - 3. Limit use of debris chutes to times to minimize disruption of activities in adjacent spaces.

1.07 TEMPORARY STAIRS AND SCAFFOLDING

- B. Temporary Stairs: Until permanent stairs are available, Contractor shall provide temporary stairs where ladders are not adequate. Contractor shall cover finished, permanent stairs with protective covering of plywood or similar material so finishes will be undamaged at time of Contract Completion review.
- B. Scaffolding: Contractor shall provide scaffolding as necessary for access and proper performance of the Work. Design and installation of scaffolding shall be solely Contractor's responsibility.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01. MAINTENANCE OF CONSTRUCTION AIDS

- A. Maintenance: Contractor shall use all means necessary to maintain construction aids in proper and safe condition throughout progress of the Work.
- B. Replacement: In the event of loss or damage, Contractor shall promptly restore construction aids by repair or replacement at no change in the Contract Sum or Contract Time.

3.02. REMOVAL OF CONSTRUCTION AIDS

- C. Removal of Construction Aids: Unless otherwise mutually agreed by FORA Construction Manager and Contractor, Contractor shall remove construction aids prior to Contract Completion review. Contractor shall coordinate removal with requirements specified in Section 01 51 00 - Temporary Utilities, Section 01 52 00 - Construction Facilities, Section 01 55 00 - Vehicular Access and Parking, and Section 01 56 00 - Temporary Barriers and Enclosures.
- D. Cleaning and Repairs: Contractor shall clean and repair damage caused by installation or use of construction aids.

END OF SECTION 01 54 00

S201-ITB2, Volume 2 - SECTION 01 54 10 – SECURITY

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Contractor Security requirements.

1.03 RELATED SECTIONS

- B. Section 01 11 00 Summary of the Work
- C. Section 01 56 00 Temporary Barriers and Enclosures

1.04 SECURITY

- A. In addition to security requirements contained in the Article 2 of the Contract Agreeement, Contractor shall adhere to the following requirements for security:
 - 1. Contractor shall protect the Work from theft, vandalism an unauthorized entry. Contractor shall have sole responsibility for job site security.
 - 2. Contractor shall maintain security throughout construction until the FORA Construction Manager acceptance.
 - 3. Provide Inspector Access. Contractor shall provide the FORA Construction Manager with keys necessary to gain access to locked areas of the Work. The FORA Construction Manager will be responsible for such keys and will return them to the Contractor upon acceptance of the project or area as complete.

1.05 ENTRY CONTROL

- D. Contractor shall restrict entrance of persons and vehicles into project site to authorized persons with proper identification and as required by Section 01 11 00 Summary of the Work.
- E. Contractor shall allow building entrance only to authorized persons with proper identification.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 54 10

S201-ITB2, Volume 2 - SECTION 01 55 00 – Vehicular Access and Parking

PART 1 - GENERAL

1.01 RELATED DOCUMENT

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- B. Requirements for vehicular access to Work areas
- C. Requirements for construction parking

1.03 RELATED SECTIONS

- D. Section 01 11 00 Summary of the Work
- E. Section 01 52 50 Construction Staging Areas.
- F. Section 01 56 00 Temporary Barriers and Enclosures
- G. Section 01 57 00 Temporary Controls

1.04 PROTECTION OF EXISTING CONDITIONS

H. Protection of Adjacent Facilities: Contractor shall restrict Work to limits indicated on the Drawings and as specified in Section 01 11 00 - Summary of the Work. Contractor shall protect existing, adjacent facilities from damage, including soiling and debris accumulation.

1.05 SITE ACCESS

- A. Site Access: Use of designated existing on-site streets and driveways for construction traffic is permitted. Contractor shall review access routes with FORA Construction Manager and comply with FORA Construction Manager directions.
 - 1. Contractor shall ensure that tracked vehicles shall not use paved areas.
 - 2. Contractor shall provide unimpeded access for emergency vehicles. Contractor shall maintain 20-foot width driveways with turning space between and around combustible materials.
 - 3. Contractor shall provide and maintain access to fire hydrants free of obstructions.
 - 4. Contractor shall clean and restore paving and other site features after construction use.
- B. Traffic Control:
 - 1. Contractor shall comply with all traffic regulations, including speed limits. Contractor shall pay all parking and traffic fines.

- 2. Blockage of site roadways and access to site parking lots and parking structures shall be only with approval of FORA Construction Manager. Contractor shall comply with City of Seaside restrictions on blocking roadways and parking areas.
- 3. Contractor shall employ trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on vehicular and pedestrian traffic lanes.
- 4. Contractor shall provide signage, cones and other suitable devices to direct traffic. Contractor shall use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

1.06 TRAFFIC SIGNS AND SIGNALS

C. Traffic Signs and Signals: Contractor shall provide temporary signs and signals as required by authorities having jurisdiction and in compliance with City of Seaside's requirements transmitted through FORA Construction Manager. Contractor shall relocate signs and signals as necessary during construction.

1.07 CONSTRUCTION PARKING

- D. Construction Parking:
 - 5. Contractor shall not park on public roadways unless approved by police and fire authorities.
 - 6. Contractor shall maintain clear access ways and parking for emergency vehicles, as required by police and fire authorities.
 - 7. Contractor shall provide on-site parking for construction purposes.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01. MAINTENANCE OF PARKING AND ACCESS ROADS

- A. Maintenance: Contractor shall maintain traffic and parking areas in a sound condition. Contractor shall repair breaks, potholes, low areas, standing water and other deficiencies, to maintain paving and drainage in original or specified condition.
- B. Cleaning of Roadways and Parking Areas: Contractor shall keep public and private rights-ofway and parking areas clear of construction-caused soiling, dust and debris, especially debris hazardous to vehicle tires. Contractor shall perform cleaning as frequently as necessary. Contractor shall coordinate with requirements specified in Section 01 57 00 - Temporary Controls.

END OF SECTION 01 55 00

S201-ITB2, Volume 2 - SECTION 01 56 00 – TEMPORARY BARRIERS AND ENCLOSURES

PART 1 - GENERAL

- 1.01 RELATED DOCUMENTS
 - A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- B. Temporary construction barriers, enclosures and passageways.
 - 1. Dust and debris barriers.
 - 2. Security barriers.
 - 3. Temporary chain link fencing.
 - 4. Covered passageways.

1.03 RELATED SECTIONS

- C. Section 01 11 00 Summary of the Work
- D. Section 01 51 00 Temporary Utilities
- D. Section 01 52 50 Construction Staging Areas
- F. Section 01 54 10 Security
- G. Section 01 55 00 Vehicular Access and Parking
- H. Section 01 56 80 Tree and Plant Protection
- I. Section 01 57 00 Temporary Controls

1.04 CODES AND REGULATIONS

- A. California Building Code (CBC): Comply with California Building Code (CBC) Chapter 33, Section 3303, Protection of Pedestrians During Construction or Demolition.
- B. Fire Regulations: Comply with requirements of fire authorities having jurisdiction, including California Fire Code (CFC) Article 87 during performance of the Work.
- C. Safety Regulations: Comply with requirements of all applicable Federal, State and local safety rules and regulations. Contractor shall be solely responsible for jobsite safety.
- D. Barricades and Barriers: As required by governing authorities having jurisdiction, provide substantial barriers, guardrails and enclosures around Work areas and adjacent to embankments and excavations for protection of workers and the public.

1.05 PROTECTION OF EXISTING CONDITIONS

- A. Protection of Adjacent Facilities: Contractor shall restrict Work to limits indicated on the Drawings and as specified in Section 01 11 00 Summary of the Work: Protect existing, adjacent facilities from damage, including soiling and debris accumulation.
- B. Protection of Existing Fixtures and Equipment: As applicable, provide temporary enclosures, barriers and covers to protect existing fixtures and equipment remaining in Project area during construction.

1.06 MAINTENANCE OF CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

- C. Maintenance: Use all means necessary to maintain temporary barriers and enclosures in proper and safe condition throughout progress of the Work.
- D. Replacement: In the event of loss or damage, promptly restore temporary barriers and enclosures by repair or replacement at no change in the Contract Sum or Contract Time.

1.07 TEMPORARY BARRIERS, ENCLOSURES AND PASSAGEWAYS

- E. Temporary Barriers, General: Provide temporary fencing, barriers and guardrails as necessary to provide for public safety, to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
 - 5. Refer to temporary fencing and phasing plan in the Drawings. Comply with requirements indicated.
 - 6. Note requirements for continued occupancy and use of existing buildings and site areas during construction.
 - 7. Comply with applicable requirements of California Building Code (CBC) and authorities having jurisdiction, including industrial safety regulations.
 - 8. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fireprotection facilities, stairways, and other access routes for firefighting.
 - 9. Paint temporary barriers and enclosures with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard.
 - 10. Where appropriate and necessary, provide warning lighting, including flashing red or amber lights.
- F. Temporary Chain-Link Fencing: Provide temporary portable chain-link fencing. See Section 01 52 50 Staging Area for requirements for layout of fencing.
 - 1. Portable Chain-Link Fencing: Minimum 2-inches 11-gauge, galvanized steel, chain-link fabric fencing; minimum 8-feet high with galvanized steel pipe posts; minimum 2-3/8-inches OD line posts and 2-7/8-inches OD corner and pull posts, with 1-5/8-inches OD top and bottom rails.
 - a. Provide concrete or galvanized steel bases for supporting posts.
 - b. Provide protective barriers at bases to prevent tripping by pedestrians.

- C. Temporary Wood Fencing: Erect a structurally adequate, protective wood fencing in compliance with California Building Code (CBC) Chapter 33, Section 3303.7 Pedestrian Protection. Wood fencing shall be provided as required by Table 33-A.
 - 1. Materials: As required by CBC Section 3303.7.
 - 2. Finishes: As acceptable to FORA Construction Manager. Fence where exposed to public view shall receive minimum of one coat wood primer and one coat semi-gloss paint, color(s) as directed by FORA Construction Manager.
- D. Barricades, Warning Signs and Lights, General: Comply with standards and code requirements for erection of structurally adequate barricades. Paint barricades with appropriate colors, graphics and warning signs to inform personnel and the public when protecting them against a hazard. Where appropriate and needed provide lighting, including flashing red or amber lights.
- E. Guard Rails: Provide guard rails along tops of embankments and excavations. Along public walkways and areas accessible by the public, adjoining excavations, provide guardrails in addition to fencing.
 - 1. Guardrails shall be substantially and durably constructed of lumber, firmly anchored by posts embedded in concrete, and complying with Code requirements for temporary barriers.
 - 2. Guardrails shall comply with dimensional requirements and accommodate loads as prescribed by California Building Code (CBC) for permanent guardrails.
- F. Security Closures and Lockup: Provide substantial temporary closures of openings in exterior surfaces and interior areas as appropriate to prevent unauthorized entrance, vandalism, theft and similar violations of security.
 - 1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- G. Temporary Access, Passage and Exit Ways: Construct temporary stairs, ramps, and covered walkways, with related doors, gates, closures, guardrails, handrails, lighting and protective devices, to maintain access and exit ways to existing facilities to remain operational.
 - 1. Design and location of temporary construction shall be by Contractor, subject to review by FORA Construction Manager and authorities having jurisdiction.
 - 2. Provide temporary lighting, illuminated interior exit signage, non-illuminated directional and instructional signage, and temporary security alarms for temporary exits and exit passageways.
 - 3. Temporary measures shall suit and connect to existing building systems, and shall be approved by FORA Construction Manager and authorities having jurisdiction.

1.08 REMOVAL OF TEMPORARY BARRIERS AND ENCLOSURES

G. Removal of Temporary Barriers and Enclosures: Unless otherwise mutually agreed by FORA Construction Manager and Contractor, remove temporary materials, equipment, services, and construction prior to Contract Completion review. Coordinate removal with requirements specified in Section 01 51 00 - Temporary Utilities, Section 01 52 00 -

Construction Facilities, Section 01 55 00 - Vehicular Access and Parking and Section 01 56 0 - Temporary Barriers and Enclosures.

H. Cleaning and Repairs: Clean and repair damage, soiling and marring caused by installation or use of temporary barriers and enclosures.

PART 2 – PRODUCTS (NOT USED)

PART 3- PRODUCTS (NOT USED)

END OF SECTION 01 56 00

S201-ITB2, Volume 2 - SECTION 01 56 80 – TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENT

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Requirements for protection of existing landscape plant materials, including Trees, shrubs and ground covers. Contractor shall preserve, protect, and prune as necessary existing trees and shrubs, and other vegetation indicated to remain.

1.03 RELATED SECTIONS

- A. Section 01 56 00 Temporary Barriers and Enclosures
- B. Section 01 57 00 Temporary Controls

1.04 WORK DESCRIPTION

- A. Protection: All trees and plant materials to remain on site shall be protected from construction activities. Preserve, protect, and prune as necessary existing trees and shrubs and other vegetation indicated to remain.
- B. Maintenance: Until Contract closeout, Contractor shall irrigate, fertilize, prune and clean as necessary to maintain all existing trees, shrubs and ground covers in healthy condition, within and adjacent to Project area.

1.05 QUALITY ASSURANCE

- C. Arborist: Contractor shall engage and pay an Arborist who will be responsible for supervising implementation of tree and plant protection measures specified in this Section.
 - 1. Arborist shall be subject to acceptance by FORA Construction Manager.
 - 2. Arborist registered by the American Society of Consulting Arborists.
 - 3. Submit evidence contract with acceptable Certified Arborist prior to commencing site mobilization activities.

PART 2 - PRODUCTS

2.01 BARRIERS

A. Barriers: As specified in Section 01 56 00 - Temporary Barriers and Enclosures.

PART 3 - EXECUTION

3.01 PROTECTION

- A. Protection: Prior to construction activities, especially demolition and excavation, on the site, Contractor shall submit to FORA Construction Manager evidence of a contract with an Arborist who shall be responsible for supervising implementation of the following tree protection measures.
 - 1. Protect existing trees, shrubs and ground covers from stockpiling, material storage including soil, vehicle parking and driving within the tree drip line. Restrict foot traffic to prevent excessive compacting of soil over root systems.
 - 2. Protect root systems of existing trees, shrubs, and ground covers from damage due to chemically injurious materials in solution caused by runoff and spillage during mixing, placement of construction materials, and drainage from stored materials.
 - 3. Protect root system from flooding, erosion, excessive wetting and drying resulting from de-watering and other operations.
 - 4. Above-ground surface runoff shall not be directed into the tree canopy area from adjacent areas. Ensure that sidewalks or other construction do not trap water near the tree. Coordinate with requirements specified in Section 01 57 00 Temporary Controls.
 - 5. Protect existing trees from unnecessary cutting, breaking and skinning of roots and branches, skinning and bruising of bark.
 - 6. Use no soil sterilants under pavement near existing trees.
 - 7. Do not allow fires under and adjacent to existing trees or plants.

3.02 PRUNING

- A. Pruning: Arborist shall direct removal of branches from trees and large shrubs and correctional pruning and cabling of specified trees which are to remain in Project, if required to clear new construction and where indicated, and to direct tree root pruning and relocation Work. Procedure for each tree may vary and shall be subject to approval by Arborist and FORA Construction Manager prior to commencing Work.
 - 8. Where indicated by FORA Construction Manager, extend pruning operation to restore natural shape of entire tree using only Western Chapter, ISA Pruning Standards.
 - 9. Cut branches and roots with sharp pruning instruments. Do not break, chop, or mutilate.
 - 10. Pruning of existing trees shall be limited to removal of all dead wood 1/2-inch or greater in size and removal of vines and sucker growth. Tree cavities existing on all oak trees shall be cleaned of wood rot.
 - 11. Tree limbs shall be trimmed or removed only under direction of skilled and experienced supervisor, according to directions of Arborist.

3.03 EXCAVATION AROUND TREES

- A. Excavation Around Trees: Excavate within drip lines of trees only where indicated.
 - Where trenching for utilities is required within drip lines, tunnel under and around roots of 2-1/2 inches diameter or larger by hand digging. Do not cut main lateral roots that are two inches or larger. Cut smaller roots that are smaller than two inches that interfere with installation of new Work. Use sharp, approved pruning tools. Pipes shall be routed into alternate locations to avoid conflict with remaining tree roots.
 - 2. Where excavating for new construction is required within drip lines of trees, hand excavate to minimize damage to root systems. Use narrow tine spading forks and comb soil to expose roots. Relocate roots in backfill areas wherever possible. If large, main lateral roots are encountered, expose beyond excavation limits as required to bend and relocate without breaking.
 - 3. If encountered immediately adjacent to location of new construction and relocation is not practical, cut roots approximately six inches back from new construction. Treat and cover cut ends as directed by Certified Arborist.
 - 4. Do not allow exposed roots to dry out before permanent backfill is placed. Provide temporary earth cover, pack with wet peat moss or four layers of wet untreated burlap and temporarily support and protect roots from damage until permanently relocated and covered with backfill. Irrigate to eliminate voids and air pockets.
- B. Pruning: Thin branching structure in accordance with Western Chapter, ISA Pruning Standards to balance loss to root system caused by damage or cutting of root system. Thinning shall not exceed 30 percent of existing branching structure.

3.04 GRADING AND FILLING AROUND TREES

- A. Grading and Filling Around Trees: Maintain existing grade within drip line of trees unless otherwise indicated.
 - 1. Grade changes shall be limited to six inches of cut or fill from original grade and shall be accomplished by hand.
 - 2. Under all trees there shall be no grade change under at least the inner 50% of the tree canopy.
- B. Lowering Grades Around Trees: Where existing grade is above new finish grade shown around trees, carefully hand excavate within drip line to new grade. Cut roots exposed by excavation to approximately three inches below elevation of new finish grade.
- C. Raising Grades Around Trees: Permitted only as acceptable to Certified Arborist and FORA Construction Manager.
- D. Other Changes: If building pads or foundations are indicated to be constructed within Project area or if existing landscaping requires alteration due addition of fill or reduced by excavation, notify FORA Construction Manager for directions prior to starting Work. Measures as directed by FORA Construction Manager, such as addition of small retaining walls or subgrade aeration lines, may be required to mitigate construction procedures affecting tree.

3.05 REPAIR AND REMOVAL OF TREES

- A. Repair and Removal of Trees: Remove trees that may impede building removal work within 25 foot perimeter of building to be removed. Arborist or FORA Construction Manager will determine whether additional trees shall be restored or removed. Treat and restore trees damaged by construction operations in a manner acceptable to FORA Construction Manager. Perform restoration and pruning promptly after damage occurs to prevent progressive deterioration of damaged trees. If trees cannot be restored, equitable adjustment to Contract Sum shall be made to compensate FORA for loss, in accordance with the Contract General Conditions.
 - 1. Remove dead and damaged trees that are determined by Arborist to be incapable of restoration to normal growth pattern.
 - 2. Contractor shall be liable for all damage and necessary restoration actions to existing trees, including trunk, branches, or roots. Restoration shall be performed under direction of Certified Arborist.

END OF SECTION 01 56 80

S201-ITB2, Volume 2 - SECTION 01 57 00 – TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- B. Protection of existing conditions, including video record of existing conditions.
- C. Life safety and fire protection.
- D. Security.
- E. Runoff control.

1.03 RELATED SECTIONS

- F. Section 01 11 00 Summary of the Work
- B. Section 01 55 00 Vehicular Access and Parking
- C. Section 01 56 00 Temporary Barriers and Enclosures

1.04 CODES AND REGULATIONS

- G. Fire Regulations: Comply with requirements of fire authorities having jurisdiction, including California Fire Code (CFC) Article 87 during performance of the Work.
- H. Safety Regulations: Contractor shall be solely responsible for jobsite safety. Minimum requirements shall include the following.
 - 1. Comply with requirements of all applicable Federal, State and local safety rules and regulations.
- I. Barricades and Barriers: As required by authorities having jurisdiction, provide substantial barriers, guardrails and enclosures around Work areas and adjacent to embankments and excavations for protection of workers and the public. See Section 01 56 00 Temporary Barriers and Controls for additional requirements.

1.05 PROTECTION OF EXISTING CONDITIONS

- J. Protection of Adjacent Facilities: Contractor shall restrict Work to limits indicated on the Drawings and as specified in Section 01 11 00 Summary of the Work. Protect existing, adjacent facilities from damage, including soiling and debris accumulation.
- K. Video Record of Existing Conditions: Contractor shall produce video record of all existing conditions within and adjacent to Project area.

- 1. Video record shall made on DVD with sound to record comments to identify locations and describe conditions.
- 2. FORA Construction Manager will accompany Contractor during recording of existing conditions but will not direct recording process.
- 3. Video shall record state of existing features, including but not limited to:
 - a. Paving.
 - b. Landscaping.
 - c. Building surfaces.
 - d. Utilities.
 - e. Lighting standards, fencing, signage and other site appurtenances.
- 4. Contractor shall retain one copy and deliver one copy of video record to FORA Construction Manager within seven calendar days after the video record was produced.
- 5. Video record shall be used to verify restoration of existing conditions after completion of construction activities.
- 6. Existing feature not recorded shall be restored as directed by FORA Construction Manager, including reconstruction and refinishing as determined necessary by FORA Construction Manager.

1.06 FIRE PROTECTION

- L. Fire Protection Responsibility: Protection of Project from fire shall be solely Contractor's responsibility.
- M. Fire Protection Provisions, General: Maintain, at a minimum, the Work in conditions to minimize fire hazards and provide adequate fire protection devices, such as suitable fire extinguishers, blankets, warning signs and storage containers.
 - 7. Store combustible materials in containers in fire-safe locations.
 - 8. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
 - 9. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
- N. Special Fire Protection Provisions: During hazardous construction activities, maintain adequate fire protection devices immediately available for use at the location of such activities.
- D. Fire Extinguishers for Protection During Construction: Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.
 - 1. Provide hand carried, portable UL-rated, Class "A" fire extinguishers for temporary offices and similar spaces.
 - 2. In other locations, provide hand-carried, portable, UL-rated, Class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.

- E. Installation of Fire Extinguishers for Protection During Construction: Locate fire extinguishers in field offices, storage sheds, tool houses, other temporary buildings and throughout the Work site. Comply with directions of Fire Marshal having jurisdiction.
 - 1. In the area under construction, provide at least one fire extinguisher for each 5,000 square feet of building floor area.
 - 2. Locate fire extinguishers no greater than 100 feet travel distance apart.

1.07 SECURITY

- A. Security Responsibility: Security of the Project area shall be solely the Contractor's responsibility until completion of the Work.
- B. Security Provisions, General: Provide security program and facilities to protect Work from unauthorized entry, vandalism, and theft.
- C. Guard Service: At Contractor's discretion, employ guards to protect the site after working hours.

1.08 RUNOFF CONTROL

- A. Erosion and Sedimentation Control: Erosion and sedimentation control provisions shall meet or exceed minimum requirements of authorities having jurisdiction. When provisions are indicated on Drawings, they are minimum requirements. If no sedimentation control system is shown, then Contractor shall design and provide system to prevent siltation of adjacent property as required by authorities having jurisdiction. See Civil Drawings for additional requirements and details.
 - 1. Implement erosion and sedimentation control provisions prior to commencing site clearing, grading, backfilling and compacting or other construction activities which will expose soil to erosion and potential for sediment-laden runoff.
 - 2. Ensure that sediment-laden water does not enter drainage systems.
 - 3. Maintain erosion and sedimentation control provisions until Contract Completion review is completed for landscaping, or sooner if approved by authorities having jurisdiction.
 - 4. Implementation, maintenance, replacement and additions to erosion and sedimentation control provisions shall solely be the responsibility of the Contractor. As construction progresses and seasonal conditions dictate, more erosion and sedimentation controls may be required. If so, Contractor shall provide additional provisions over and above minimum requirements as necessary.
- B. Drainage: Grade site and other Work areas to drain.
 - 1. Provide temporary drainage ditches and diversion measures as necessary to protect construction.
 - 2. Provide erosion control measures as necessary and as required by authorities having jurisdiction. Comply with local water quality control requirements, as applicable.
- C. De-Watering: Maintain excavations free of water. Provide and operate pumping equipment as necessary.
 - 1. Removal of contaminated water from excavations, dewatering of contaminated

groundwater and discharging of contaminated soils via surface erosion is prohibited.

- 2. Dewatering of non-contaminated groundwater shall be performed only after Contractor obtains a National Pollutant Discharge Elimination System Permit from the State or Regional Water Quality Control Board having authority. Costs of such permit shall be included in the Contract Sum.
- D. Runoff Control: Storm water runoff and other waters may be encountered at various times during construction. Contractor, by signing the Agreement, acknowledges that risks arising from storm water runoff and other waters have been investigated and considered, and Contract Sum and Contract Time include all costs associated with runoff control.
 - 1. It shall be responsibility of Contractor to protect Work from detrimental effects of all waters encountered.
 - 2. It shall be responsibility of Contractor to protect Work from detrimental effects of runoff.
 - 3. Should damage to the Work due to surface or other water occur prior to acceptance of the Work by FORA Construction Manager, Contractor shall repair or replace Work at no change in Contract Time or Contract Sum.
- E. National Pollutant Discharge Elimination System: Contractor shall comply with requirements of environmental protection and storm drainage authorities having jurisdiction.
 - 1. Project Area and other areas affected by Work under the Contract shall be maintained in such condition that anticipated storm runoff does not carry wastes and other pollutants off the site.
 - 2. Discharges of material other than storm water will be allowed only when necessary for performance of the Work and where such discharge does not cause the following:
 - a. Cause or contribute to a violation of applicable water quality standard.
 - b. Cause or threaten to cause pollution, contamination or nuisance, as determined by Authorities having jurisdiction. Potential pollutants include but are not limited to:
 - 1) Solid or liquid chemical spills.
 - 2) Wastes from paints, stains, sealants, adhesives, limes, pesticides, herbicides, wood preservatives and solvents.
 - 3) Asbestos fibers, paint flakes or fragments of plaster and drywall.
 - 4) Fuels, lubricants, hydraulic fluids, coolants, battery electrolytes.
 - 5) Vehicle or equipment, degreasing, steam cleaning and wash water.
 - 6) Concrete, mortar and plaster mix and cleaning water.
 - 7) Detergents and floatable wastes.
 - 8) Superchlorinated potable water line flushings.
 - c. Contain hazardous substances in a quantity reportable under Federal Regulations 40 CFR Parts 117 and 302.
 - 3. During performance of the Work, disposal of such materials shall occur at a temporary onsite location, physically separated from potential storm water runoff, with ultimate disposal in compliance with all applicable local, regional, State and Federal requirements.

- 4. Contractor shall obtain and comply with Storm Water Pollution Prevention Plan (SWPPP). Contractor shall be responsible for payment of the permit and all fines for non-compliance with the SWPPP, at no change in Contract Sum.
- F. Pavement Clearing and Cleaning: Keep site accessways, parking areas and building access and exit facilities clear of mud.
 - 1. Remove mud, soil and debris and dispose in a manner which will not be injurious to persons, property, plant materials and site.
 - 2. Comply with runoff control requirements stated above and as required by authorities having jurisdiction.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 57 00

S201-ITB2, Volume 2 - SECTION 01 61 00- BASIC PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- B. General requirements for products used for the Work, including:
 - 1. General characteristics of products
 - 2. Product options
 - 3. System completeness
 - 4. Transportation and handling requirements
 - 5. Storage and protection of products
 - 6. Installation of products.

1.03 RELATED SECTIONS

- A. Section 01 33 00 Submittals Procedures
- B. Section 01 41 00 Regulatory Requirements
- C. Section 01 42 00 Reference Standards and Abbreviations
- D. Section 01 63 00 Product Substitution Requirements
- E. Section 01 65 00 Product Delivery Requirements
- F. Section 01 66 00 Product Storage and Handling Requirements

1.04 GENERAL PRODUCT REQUIREMENTS

- C. Products, General: "Products" include items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock, and include materials, equipment, assemblies, fabrications and systems.
 - 7. Named Products: Items identified by manufacturer's product name, including make or model designations indicated in the manufacturer's published product data.
 - 8. Materials: Products that are shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed or installed to form a part of the Work.
 - 9. Equipment: A product with operating parts that are motorized or manually operated and require connections such as wiring or piping.

- D. Specific Product Requirements: Refer to requirements of Section 01 45 00 Quality Control and individual product
- E. Minimum Requirements: Specified requirements for products are minimum requirements. Refer to general requirements for quality of the Work specified in Section 01 45 00 - Quality Control and elsewhere herein.
- F. Product Selection: Provide products that fully comply with the Contract Documents, are undamaged and unused at installation. Comply with additional requirements specified herein in Article titled "PRODUCT OPTIONS".
- G. Standard Products: Where specific products are not specified, provide standard products of types and kinds that are suitable for the intended purposes and that are usually and customarily used on similar projects under similar conditions. Products shall be as selected by Contractor and subject to review and acceptance by the FORA Construction Manager.
- F. Code Compliance: All products, other than commodity products prescribed by Code, shall have a current ICBO Evaluation Service (ICBO ES) Research Report or National Evaluation, Inc. Report (NER). Refer to additional requirements specified in Section 01 41 00 Regulatory Requirements.
- G. Interchangeability: To the fullest extent possible, provide products of the same kind from a single source. Products required to be supplied in quantity shall be the same product and interchangeable throughout the Work. When options are specified for the selection of any of two or more products, the product selected shall be compatible with products previously selected.
- H. Product Nameplates and Instructions:
 - 1. Except for required Code-compliance labels and operating and safety instructions, locate nameplates on inconspicuous, accessible surfaces. Do not attach manufacturer's identifying nameplates or trademarks on surfaces exposed to view in occupied spaces or to the exterior.
 - 2. Provide a permanent nameplate on each item of service-connected or power-operated equipment. Nameplates shall contain identifying information and essential operating data such as the following example:

Name of manufacturer

Name of product

Model and serial number

Capacity

Operating and Power Characteristics

Labels of Tested Compliance with Codes and Standards

3. For each item of service-connected or power-operated equipment, provide operating and safety instructions, permanently affixed and of durable construction, with legible machine lettering. Comply with all applicable requirements of authorities having jurisdiction and listing agencies.

1.05 PRODUCT OPTIONS

- H. Product Options: Provisions of Public Contract Code Section 03400 shall apply, as supplemented by the following general requirements.
- I. Products Specified by Description: Where Specifications describe a product, listing characteristics required, with or without use of a brand name, provide a product that has the specified attributes and otherwise complies with specified requirements.
- J. Products Specified by Performance Requirements: Where Specifications require compliance with performance requirements, provide product(s) that comply and are recommended by the manufacturer for the intended application. Verification of manufacturer's recommendations may be by product literature or by certification of performance from manufacturer.
- K. Products Specified by Reference to Standards: Where Specifications require compliance with a standard, provided product shall fully comply with the standard specified. Refer to general requirements specified in Section 01 42 00 Reference Standards and Abbreviations regarding compliance with referenced standards, standard specifications, codes, practices and requirements for products.
- L. Products Specified by Identification of Manufacturer and Product Name or Number:
 - 4. Sole, source, no other product shall be accepted: Provide the specified product(s) of the specified manufacturer.
 - 5. "Acceptable Manufacturers": Product(s) of the named manufacturers, if equivalent to the specified product(s) of the specified manufacturer, will be acceptable in accordance with the requirements specified herein in the Article titled "'OR EQUAL' PRODUCTS."
 - 6. Unnamed manufacturers: Products of unnamed manufacturers will be acceptable only as follows:
 - Unless specifically stated that equals will not be accepted or considered, the phrase "or equal" shall be assumed to be included in the description of specified product(s). Equivalent products of unnamed manufacturers will be accepted in accordance with the "or equal" provision specified herein, below.
 - b. If provided, products of unnamed manufacturers shall be subject to the requirements specified herein in the Article titled "'OR EQUAL' PRODUCTS."
 - 7. Quality basis: Specified product(s) of the specified manufacturer shall serve as the basis by which products by named acceptable manufacturers and products of unnamed manufacturers will be evaluated. Where characteristics of the specified product are described, where performance characteristics are identified or where reference is made to industry standards, such characteristics are specified to facilitate evaluation of products by identifying the most significant attributes of the specified product(s).
- M. Products Specified by Combination of Methods: Where products are specified by a combination of attributes, including manufacturer's name, product brand name, product catalog or identification number, industry reference standard, or description of product characteristics, provide products conforming to all specified attributes.
- N. "Or Equal" Provision: Where the phrase "or equal" or the phrase "or approved equal" is included, product(s) of unnamed manufacturer(s) may be provided as specified above in subparagraph titled "Unnamed manufacturers."

- 1. The requirements specified herein in the Article titled "'OR EQUAL' PRODUCTS" shall apply to products provided under the "or equal" provision.
- 2. Use of product(s) under the "or equal" provision shall not result in any delay in completion of the Work, including completion of portions of the Work for use by FORA or for work under separate contract by FORA.
- 3. Use of product(s) under the "or equal" provision shall not result in any costs to FORA, including design fees and permit and plan check fees.
- 4. Use of product(s) under the "or equal" provision shall not require substantial change in the intent of the design, in the opinion of the FORA Construction Manager. The intent of the design shall include functional performance and aesthetic qualities.
- 5. The determination of equivalence will be made by the FORA Construction Manager, and such determination shall be final.
- O. Visual Matching: Where Specifications require matching a sample, the decision by the FORA Construction Manager on whether a proposed product matches shall be final. Where no product visually matches, but the product complies with other requirements, comply with provisions for substitutions for selection of a matching product in another category.
- P. Selection of Products: Where requirements include the phrase "as selected from manufacturer's standard colors, patterns and textures", or a similar phrase, selections of products will be made by indicated party or, if not indicated, by the FORA Construction Manager. The FORA Construction Manager will select color, pattern and texture from the product line of submitted manufacturer, if all other specified provisions are met.

1.06 "OR EQUAL" PRODUCTS

- Q. "Or Equal" Products: Products are specified typically by indicating a specified manufacturer and specific products of that manufacturer, with acceptable manufacturers identified with reference to this "or equal" provision. If Contractor proposes to provide products other than the specified products of the specified manufacturer, provisions of any relevant Contract Agreement Article, and Public Contract Code section 3400 shall apply. Contractor shall submit if and when directed by FORA Construction Manager, complete product data, including drawings and descriptions of products, fabrication details and installation procedures. Include samples where applicable or requested.
 - 1. Submit a minimum of four copies. Form and other administrative requirements shall be as directed by the FORA Construction Manager.
 - 2. Include appropriate product data for the specified product(s) of the specified manufacturer, suitable for use in comparison of characteristics of products.
 - a. Include a written, point-by-point comparison of characteristics of the proposed equal product with those of the specified product.
 - b. If the proposed equal is accepted, Contractor shall include a detailed description in written or graphic form as appropriate, indicating all necessary changes or modifications to other elements of the Work and to construction to be performed by the FORA and others under separate contract with FOR A.
 - 3. "Or Equal" product submissions shall include a statement indicating the equal's effect on the Construction Schedule. Contractor shall indicate the effect of the proposed products

on overall Contract Time and, as applicable, on completion of portions of the Work for use by FORA for work under separate contract by FORA.

- 4. "Or Equal" product submissions shall include signed certification that the Contractor has reviewed the proposed products and has determined that the products are equivalent or superior in every respect to product requirements indicated or specified in the Contract Documents, and that the proposed products are suited for and can perform the purpose or application of the specified product indicated or specified in the Contract Documents.
- 5. "Or Equal" product submissions shall include a signed waiver by the Contractor for change in the Contract Time or Contract Sum because of the following:
 - a. "Or equal" product failed to perform adequately.
 - b. "Or equal" product required changes in on other elements of the Work.
 - c. "Or equal" product caused problems in interfacing with other elements of the Work.
- 6. If, in the opinion of the FORA Construction Manager, the "or equal" product request is incomplete or has insufficient data to enable a full and thorough review of the proposed products, the proposed products may be summarily refused and determined to be unacceptable.
- R. Product Substitutions: For products not governed by the "or equal" provision, comply with substitution provisions of Article 2 of the Contract Agreement and requirements specified in Section 01 63 00 Product Substitution Procedures.

1.07 SYSTEM COMPLETENESS

- S. System Completeness
 - 1. The Contract Drawings and Specifications are not intended to be comprehensive directions on how to produce the Work. Rather, the Drawings and Specifications are instruments of service prepared to describe the design intent for the completed Work.
 - 2. It is intended that all equipment, systems and assemblies be complete and fully functional even though not fully described. Provide all products and operations necessary to achieve the design intent described in the Contract Documents.
 - 3. Refer to related general requirements specified in Section 01 41 00 Regulatory Requirements regarding compliance with minimum requirements of applicable codes, ordinances and standards.
- T. Omissions and Misdescriptions: Contractor shall report to FORA Construction Manager immediately when elements essential to proper execution of the Work are discovered to be missing or misdescribed in the Drawings and Specifications or if the design intent is unclear.
 - 1. Should an essential element be discovered as missing or misdescribed prior to receipt of Bids, an Addendum will be issued so that all costs may be accounted for in the Contract Sum.
 - 2. Should an obvious omission or misdescription of a necessary element be discovered and reported after execution of the Agreement, Contractor shall provide the element as though fully and correctly described, and a no-cost Change Order shall be executed.
 - 3. Refer to related general requirements specified in Section 01 31 00 Coordination regarding construction interfacing and coordination.

1.08 TRANSPORTATION, DELIVERY AND HANDLING

- U. Transportation, Delivery and Handling, General: Contractor shall comply with manufacturer's instructions and recommendations for transportation, delivery and handling, in addition to the following.
- V. Transportation: Contractor shall transport products by methods to avoid product damage.
- W. Delivery:
 - 4. Contractor shall schedule delivery to minimize long-term storage and prevent overcrowding construction spaces. Contractor shall coordinate with installation to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
 - 5. Contractor shall deliver products in undamaged condition in manufacturer's original sealed container or packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
- X. Handling:
 - 1. Contractor shall provide equipment and personnel to handle products by methods to prevent soiling, marring or other damage.
 - 2. Contractor shall promptly inspect products on delivery to ensure that products comply with Contract Documents, quantities are correct, and to ensure that products are undamaged and properly protected.

1.09 STORAGE AND PROTECTION

- Y. Storage and Protection, General: Contractor shall store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible.
 - 3. Contractor shall periodically inspect to ensure products are undamaged, and are maintained under required conditions.
 - 4. Contractor shall remove and replace products damaged by improper storage or protection with new products at no change in Contract Sum or Contract Time.
 - 5. Contractor shall store sensitive products in weather tight enclosures.
- Z. Inspection Provisions: Contractor shall arrange storage to provide access for inspection and measurement of quantity or counting of units.
- AA. Structural Considerations: Contractor shall store heavy materials away from the structure in a manner that will not endanger supporting construction.
- BB. Weather-Resistant Storage:
 - 1. Contractor shall store moisture-sensitive products above ground, under cover in a weather tight enclosure or covered with an impervious sheet covering. Contractor shall provide adequate ventilation to avoid condensation.
 - 2. Contractor shall maintain storage within temperature and humidity ranges required by manufacturer's instructions.

- 3. For exterior storage of fabricated products, Contractor shall place products on raised blocks, pallets or other supports, above ground and in a manner to not create ponding or misdirection of runoff. Contractor shall place on sloped supports above ground.
- 4. Contractor shall store loose granular materials on solid surfaces in a well-drained area. Contractor shall prevent mixing with foreign matter.
- CC. Protection of Completed Work:
 - 1. Contractor shall provide barriers, substantial coverings and notices to protect installed Work from traffic and subsequent construction operations.
 - 2. Contractor shall remove protective measures when no longer required and prior to Contract Completion review of the Work.
 - 3. Contractor shall comply with additional requirements specified in Section 01 56 00 Temporary Barriers and Enclosures.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION

- 3.01 INSTALLATION OF PRODUCTS
 - A. Installation of Products:
 - 1. Contractor shall comply with manufacturer's instructions and recommendations for installation of products, except where more stringent requirements are specified and necessary due to Project conditions or are required by authorities having jurisdiction.
 - 2. Contractor shall anchor each product securely in place, accurately located and aligned with other Work.
 - 3. Contractor shall clean exposed surfaces and provide protection to ensure freedom from damage and deterioration at time of Contract Completion review. Contractor shall refer to additional requirements specified in Section 01 74 00 Cleaning Requirements and Section 01 56 00 Temporary Barriers and Enclosures.

END OF SECTION 01 61 00

S201-ITB2, Volume 2 - SECTION 01 63 00 – PRODUCT SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

B. General requirements applicable to substitutions of materials, products, equipment and systems.

1.03 1.1 SUBSTITUTION OF MATERIALS AND EQUIPMENT

- A. Substitutions, General: Catalog numbers and specific brands or trade names are used in materials, products, equipment and systems required by the Specifications to establish the standards of quality, utility and appearance required. Alternative products which are of equal quality and of required characteristics for the purpose intended may be proposed for use provided the Contractor complies with provisions of Article 2 of the Contract Agreement, subject to the following provisions.
 - 1. See Section 01 61 00 Basic Product Requirements for requirements regarding product options.
 - 2. Substitutions will only be authorized by properly executed Change Order or Field Instruction.
 - 3. Note: FORA has no obligation to entertain substitutions.
- B. Substitution Provisions:
 - 1. Documentation: Substitutions will not be considered if they are indicated or implied on shop drawing, product data or sample submittals. All requests for substitution shall be by separate written request from Contractor. See paragraph below for documentation required in the submission of request for substitution.
 - Cost and Time Considerations: Substitutions will not be considered unless a net reduction in Contract Sum or Contract Time results to FORA's benefit, including redesign costs, life cycle costs, plan check and permit fees, changes in related Work and overall performance of building systems.
 - 3. Design Revision: Substitutions will not be considered if acceptance will require substantial revision of the Contract Documents or will substantially change the intent of the design, in the opinion of the FORA Construction Manager. The intent of the design shall include functional performance and aesthetic qualities.
 - 4. Data: It shall be the responsibility of the Contractor to provide adequate data demonstrating the merits of the proposed substitution, including cost data and information regarding changes in related Work.

- 5. Determination by FORA Construction Manager: FORA Construction Manager and FORA consultants will determine the acceptability of proposed substitutions, and FORA Construction Manager will notify Contractor in writing of acceptance or rejection. The determination by the FORA Construction Manager regarding functional performance and aesthetic quality shall be final.
- 6. Non-Acceptance: If a proposed substitution is not accepted, Contractor shall immediately provide the specified product.
- 7. Substitution Limitation: Only one request for substitution will be considered for each product.
- C. Request for Substitution Procedures: Comply with provisions of Article 2 of the Contract Agreement and the following.
 - 1. Contractor shall prepare a request for substitution and submit the request to FORA's consultant through FORA Construction Manager for review and recommendation for acceptance. Acceptance and approval of substitutions shall be by FORA Construction Manager
 - a. Submit a minimum of four copies.
 - b. Present the request for substitution using form provided by FORA Construction Manager.
 - c. Comply with other administrative requirements shall be as directed by FORA Construction Manager.
 - 2. Substitution requests shall include complete product data, including drawings and descriptions of products, fabrication details and installation procedures. Include samples where applicable or requested.
 - 3. Substitution requests shall include appropriate product data for the specified product(s) of the specified manufacturer, suitable for use in comparison of characteristics of products.
 - a. Include a written, point-by-point comparison of characteristics of the proposed substitute product with those of the specified product.
 - b. Include a detailed description, in written or graphic form as appropriate, indicating all changes or modifications needed to other elements of the Work and to construction to be performed by the FORA and by others under separate contracts with FORA that will be necessary if the proposed substitution is accepted.
 - 4. Substitution requests shall include a statement indicating the substitution's effect on the Construction Schedule. Indicate the effect of the proposed substitution on overall Contract Time and, as applicable, on completion of portions of the Work for use by FORA or for work under separate contracts by FORA.
 - 5. Except as otherwise specified, substitution requests shall include detailed cost data, including a proposal for the net change, if any, in the Contract Sum.
 - 6. Substitution requests shall include signed certification that the Contractor has reviewed the proposed substitution and has determined that the substitution, in combination with the cost or time savings, represents an equivalent or superior condition in every respect to product requirements and value indicated or specified in the Contract Documents, and that the substitution is suited for and can perform the purpose or application of the specified product indicated or specified in the Contract Documents.

- 7. Substitution requests shall include a signed waiver by the Contractor for change in the Contract Time or Contract Sum because of the following:
 - a. Substitution failed to perform adequately.
 - b. Substitution required changes in on other elements of the Work.
 - c. Substitution caused problems in interfacing with other elements of the Work.
 - d. Substitution was determined to be unacceptable by authorities having jurisdiction.
- 8. If, in the opinion of the FORA Construction Manager, the substitution request is incomplete or has insufficient data to enable a full and thorough review of the intended substitution, the substitution may be summarily refused and determined to be unacceptable.
- D. Contract Document Revisions:
 - 1. Should a Contractor-proposed substitution or alternative sequence or method of construction require revision of the Contract Drawings or Specifications, including revisions for the FOR A's consultant who is the responsible design professional will make revisions as approved in writing in advance by FORA Construction Manager.
 - 2. Contractor shall pay for services of FORA's consultants, other responsible design professionals and FORA for researching and reporting on proposed substitutions or alternative sequence and method of construction when such activities are considered additional services to the design services contracts of FORA's consultant.
 - 3. Contractor shall pay for costs of services by FORA's consultants, other responsible design professionals and FORA. These costs may include travel, reproduction, long distance telephone and shipping costs reimbursable at cost plus usual and customary mark-up for handling and billing.
 - 4. Contractor shall pay such fees whether or not the proposed substitution or alternative sequence or method of construction is ultimately accepted by FORA and a Change Order is executed.

PART 2 – PRODUCTS (NOT USED)

PART 3– PRODUCTS (NOT USED)

END OF SECTION 01 63 00

S201-ITB2, Volume 2 - SECTION 01 65 00 – PRODUCT DELIVERY REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

B. Protect products scheduled for use in the work by means including, but not necessarily limited to, those described in this Section.

1.03 RELATED SECTIONS

- C. Section 01 61 00 Basic Product Requirements
- D. Section 01 66 00 Product Storage and Handling Requirements

1.04 QUALITY ASSURANCE

- E. Contractor's Quality Assurance: Contractor shall include within the Contractor's quality assurance program procedures as necessary to ensure protection of products upon delivery. Contractor shall be solely responsible for all products upon delivery to Work site and in off-site storage.
 - 1. Contractor shall schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Contractor shall coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Contractor shall inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- F. Manufacturer's Requirements: Contractor shall determine and comply with manufacturer's instructions and recommendations for product handling.
- G. Packaging: Contractor shall deliver products to Work site in manufacturer's original containers, with labels intact and legible.
 - 1. Products delivered to Work site shall be in undamaged condition, in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 2. Contractor shall maintain packaged materials with seals unbroken and labels intact until time of use.
 - 3. Products will be subject to rejection if they do not bear required identification or are unsuitably packaged.

- H. Delivery:
 - 1. Contractor shall address and deliver products to Project site. Do not deliver products to FORA. Address deliveries to Contractor and Project name. Do not address products "care of" FORA.
 - 2. FORA will not be responsible for misaddressed and misdelivered products, including claims for damage and delay.
- I. Damaged Products: In event of damage, Contractor shall promptly make replacements and repairs to packaging and contents, as acceptable to FORA Construction Manager, at no change in Contract Sum and Contract Time.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 65 00

S201-ITB2, Volume 2 - SECTION 01 66 00 – PRODUCT STORAGE AND HANDLING REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

B. Storage and protection requirements to ensure that products intended for use in the Work will not be damaged and will not deteriorate from time of delivery to time of incorporation into the Work.

1.03 RELATED SECTIONS

- C. Section 01 52 00 Construction Facilities
- D. Section 01 52 50 Construction Staging Areas
- E. Section 01 56 00 Temporary Barriers and Enclosures
- F. Section 01 61 00 Basic Product Requirements
- G. Section 01 65 00 Product Delivery Requirements

1.04 QUALITY ASSURANCE

- H. Contractor's Quality Assurance: Contractor shall include within the Contractor's quality assurance program procedures as necessary to ensure protection of products after delivery to Work site. Contractor shall be solely responsible for all products stored on site and in off-site storage.
 - 1. Contractor shall protect stored products from damage.
 - 2. Contractor shall store products to allow for inspection and measurement of quantity or counting of units.
 - 3. Contractor shall store materials in a manner that will not endanger Project structure.
 - 4. Contractor shall store products that are subject to damage by the elements, under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
- I. Manufacturer's Handling Requirements: Contractor shall determine and comply with product manufacturer's written instructions for handling products.
- J. Manufacturer's Storage Requirements: Contractor shall determine and comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.

- K. Storage: Contractor shall provide secure locations and enclosures at Project site for storage of materials and equipment. Contractor shall coordinate location with Contractor storage and staging areas. Refer to Section 01 52 00 - Construction Facilities and Section 01 52 50 -Construction Staging Areas.
 - 1. Contractor shall maintain packaged materials with seals unbroken and labels intact until time of use.
 - 2. Products will be subject to rejection if they do bear required identification or are unsuitably packaged.
- L. Damaged Products: In event of damage, Contractor shall promptly make replacements and repairs to packaging and contents, as acceptable to FORA Construction Manager, at no change in Contract Sum and Contract Time.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 66 00

S201-ITB2, Volume 2 - SECTION 01 72 00 – PREPARATION REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Requirements for preparation prior to installing, applying and placing products to determine acceptable conditions for the Work.
- B. Layout of the Work and other engineering services necessary to accomplish the Work.

1.03 RELATED SECTIONS

- A. Section 01 3 10 Coordination
- B. Section 01 31 20 Project Meetings
- C. Section 01 32 10 Construction Progress Schedules
- D. Section 01 73 20 Cutting and Patching
- E. Section 01 77 00 Contract Closeout Procedures
- F. Section 01 78 10 Survey and Layout Data.
- G. Selective Demolition: Removal of existing construction in preparation of performance of specified Work, as represented on drawings.
- H. Section 02225 Removals and Relocations: Removal of products in preparation for the Work.

1.04 LAYOUT OF WORK

- I. Surveyor: Contractor shall select and pay for services of a land surveyor, registered in the State of California, for proper performance of the Work.
 - 1. Services of surveyor shall be suitable for layout and verification of location of buildings and site elements.
 - 2. For the Project record, Contractor shall submit the name, address and telephone number of land surveyor before starting survey Work.
- PART 2 PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PREPARATION

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- A. Manufacturer's Requirements: Contractor shall determine product manufacturer's requirements and recommendations prior to commencing Work.
- B. Preparations: Contractor shall perform preparation actions according to manufacturer's instructions and recommendations and according to specified procedures.
 - 1. Contractor shall perform surface preparation as necessary to create suitable substrates for application, installation and placement of products.
 - 2. Contractor shall notify FORA Construction Manager in writing of unsuitable conditions preventing proper performance of the Work.
- C. Existing Utility Information: Contractor shall furnish information to serving utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Contractor shall coordinate with FORA Construction Manager and with authorities having jurisdiction.
- D. Existing Utility Interruptions: Contractor shall not interrupt utilities serving facilities occupied by others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Contractor shall notify FORA Construction Manager not less than two working days in advance of proposed utility interruptions.
 - 2. Contractor shall not proceed with utility interruptions without written permission from FORA Construction Manager.
- E. Field Measurements: Contractor shall take field measurements as required to fit the Work properly. Contractor shall recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, Contractor shall verify dimensions of other construction by field measurements before fabrication. Contractor shall coordinate fabrication schedule with construction progress to avoid delaying the Work.
- F. Space Requirements: Contractor shall verify space requirements and dimensions of items shown diagrammatically on Drawings.
- G. Review of Contract Documents and Field Conditions: Immediately upon discovery of the need for clarification of the Contract Documents, Contractor shall submit a Request for Interpretation (RFI) to FORA Construction Manager. Contractor shall include a detailed description of problem encountered, together with recommendations for changing the Contract Documents. Contractor shall submit requests in accordance with requirements specified in Section 01 31 13.1 - Requests for Interpretation (RFI), using form as directed by FORA Construction Manager.
- H. Verification of Construction Layout: Before proceeding to lay out the Work, Contractor shall verify layout information shown on Drawings, in relation to the property survey and existing benchmarks, and locate survey reference points. If discrepancies are discovered, Contractor shall promptly notify FORA Construction Manager.

3.02 FIELD ENGINEERING

A. Examination: Contractor shall verify locations of survey control and reference points prior to starting Work. If discrepancies are discovered, Contractor shall promptly notify FORA Construction Manager.

- B. Survey Control and Reference Points: Contractor shall locate and protect survey control and reference points. Control datum for survey shall be as indicated on Civil Drawings. Notwithstanding the data on Civil Drawings, Contractor shall use NAD 83 State Plane Coordinate System for survey control and reference points.
 - 1. Business and Professions Code section 8771 provides for the preservation of Survey Monuments in construction projects. This legislation mandates that, prior to construction, monuments shall be referenced in the field and "Corner Records" shall be prepared for filing in the Office of the County Surveyor. Contractor shall ensure that these shall be performed prior to Contract Completion of the Work.
 - 2. Contractor shall comply with requirements of authorities having jurisdiction for survey monumentation preservation on capital improvement projects where monumentation points are present.
 - 3. Contractor shall be responsible for preparing and submitting proper documentation to the Office of the County Surveyor in compliance with Business and Professions Code section 8771.
 - 4. Contract Completion and release of retainage shall be contingent upon obtaining documentation from Contractor's project surveyor or engineer that monuments have been set or restored and that Corner Records have been filed with and to the satisfaction of the County Surveyor.
 - 5. All costs and actions necessary for compliance with Business and Professions Code section 8771 shall be included in the Contract Sum and Contract Time.

3.03 SURVEYING AND FIELD ENGINEERING SERVICES

- C. Surveying and Field Engineering Services: Contractor shall provide surveying and field engineering services as necessary for performance of the Work.
 - 1. Contractor shall be responsible for the accuracy and adequacy of surveying and field engineering services.
 - 2. Contractor shall utilize recognized engineering practices.
 - 3. Contractor shall check the location, level and plumb, of every major element as the Work progresses.
 - 4. Contractor shall preserve construction survey stakes and marks for the duration of their usefulness.
 - 5. If construction survey stakes are lost or disturbed, and require replacement, Contractor shall perform replacement at no change in Contract Sum and Contract Time.
 - 6. Contractor shall excavate all holes necessary for line and grade stakes.
- D. Surveying for Layout and Control of the Work: Contractor shall establish elevations, lines and levels for all Work under the Contract. Contractor shall locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements, including pavements, curbs, headers, sewers, storm drains, structures, and paving. Note on Project Record Drawings utility locations, slopes and invert elevations.

- 2. Stakes for cutting, filling, grading and topsoil placement, to establish finished grade or flow line indicated on Contract Drawings.
 - a. Contractor shall preserve construction survey stakes and marks for the duration of their usefulness.
 - b. If construction survey stakes are lost or disturbed, and require replacement, Contractor shall perform replacement at no change in Contract Sum and Contract Time.
 - c. Contractor shall excavate all holes necessary for line and grade stakes.
- 3. Grid or axis for structures, building foundation, column locations and ground floor elevations.
- 4. Contractor shall establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
- 5. Contractor shall establish dimensions within tolerances indicated. Contractor shall not scale Drawings to obtain required dimensions.
- 6. Contractor shall inform installers of lines and levels to which they must comply.
- 7. When deviations from required lines and levels exceed allowable tolerances, Contractor shall notify University's Representative, Architect and Project Inspector.
- 8. Contractor shall close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- E. Monuments: Contractor shall establish a minimum of two permanent monuments on site, referenced to established control points. Contractor shall record locations, with horizontal and vertical data, on Project Record Drawings.
 - 1. In accordance with Business and Professions Code section 8772, any monument set by a licensed land surveyor or registered civil engineer to mark or reference a point on a property or land line shall be permanently and visibly marked or tagged with the certificate number of the surveyor or civil engineer setting it, each number preceded by the letters "L.S." or "R.C.E." respectively, as the case may be, or, if the monument is set by a public agency, it shall be marked with the name of the agency and the political subdivision it serves.
 - 2. Nothing in this Section shall prevent the inclusion of other information on the tag which will assist in the tracing or location of survey records which relate to the tagged monument.
 - 3. Contractor shall ensure that centerline ties filed with the County Surveyor will be checked for compliance with this law.
- F. Site Grading Verification: Upon completion of grading, Contractor shall survey graded areas and establish that elevations are correct and within acceptable tolerances for paving and finish grading.
- G. Verification of Work: Contractor shall periodically verify layout and completed conditions of the Work by same means.

END OF SECTION 01 72 00

S201-ITB2, Volume 2 - SECTION 01 66 00 – EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- B. General requirements for installing, applying and placing products.
- C. General requirements for correction of defective Work.

1.03 RELATED SECTIONS

D. Section 01 31 20 - Project Meetings: Pre-installation and coordination conferences where procedures for installing, applying and placing products prior to performance of the Work.

1.04 EXECUTION

- E. Manufacturer's Requirements: Contractor shall determine product manufacturer's requirements and recommendations prior to commencing Work.
- F. Execution: Contractor shall perform installation, application and placement actions according to manufacturer's instructions and recommendations and according to specified procedures.
 - 1. Contractor shall perform surface preparation as necessary to create suitable substrates for application, installation and placement of products.
 - 2. Contractor shall notify FORA Construction Manager in writing of unsuitable conditions preventing proper performance of the Work.

PART 2 – PRODUCTS (NOT USED

PART 3 – EXECUTION (NOT USED)

3.1 INSTALLATION, APPLICATION AND PLACEMENT OF PRODUCTS

- A. Manufacturer's Instructions: Contractor shall comply with manufacturer's written instructions and recommendations for installing, applying, placing and finishing products.
- B. Installation, Application and Placement, General: Contractor shall locate the Work and components of the Work accurately, in correct alignment, orientation and elevation, as indicated.
 - 1. Contractor shall make vertical work plumb and make horizontal work level.

- 2. Where space is limited, Contractor shall install components to maximize space available for maintenance and ease of removal for replacement.
- 3. Contractor shall conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
- 4. Contractor shall maintain minimum headroom clearance of 8 feet in spaces without a suspended ceiling, unless otherwise directed.
- 5. Contractor shall install products at the time and under conditions that will ensure the best possible results. Contractor shall maintain conditions required for product performance until acceptance of the Work.
- 6. Contractor shall conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- C. Tools and Equipment: Contractor shall not use tools or equipment that produce harmful noise levels.
- D. Anchors and Fasteners: Contractor shall provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, Contractor shall mount components at heights directed by Architect.
 - 2. Contractor shall allow for building movement, including thermal expansion and contraction.
- E. Joints: Contractor shall make joints of uniform width. Where joint locations in exposed work are not indicated, Contractor shall arrange joints for the best visual effect. Contractor shall fit exposed connections together to form hairline joints.
- E. Hazardous Materials: Contractor shall use products, cleaners, and installation materials that are not considered hazardous.
- F. Cleaning: Contractor shall comply with requirements specified in Section 01 74 00 Cleaning Requirements. See individual product Specifications Sections for specific cleaning procedures to be performed.
- G. Protection: Contractor shall provide barriers, covers and other protective devices as recommended by manufacturer and complying with general requirements specified in Section 01 56 00 Temporary Barriers and Enclosures.
 - 1. Contractor shall comply with manufacturer's written instructions for temperature and relative humidity.
 - 2. See individual product Specifications Sections for specific protective measures to be provided.
 - H. Limiting Exposures: Contractor shall supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.2 OWNER-INSTALLED PRODUCTS

- A. Site Access: Contractor shall provide access to Project site for FORA's construction forces and those performing work for FORA under separate contracts. Contractor shall coordinate with requirements specified in Section 01 55 00 Vehicular Access and Parking.
- B. Coordination: Contractor shall coordinate construction and operations of the Work with work performed by FORA by separate contract or with FORA's construction forces.
 - 1. Construction schedule: Contractor shall inform FORA Construction Manager of Contractor's preferred construction schedule for FORA-installed work. Contractor shall adjust construction schedule based on a mutually agreeable timetable. Contractor shall notify FORA Construction Manager if changes to schedule are required due to differences in actual construction progress.
 - 2. Pre-installation and coordination conferences: Contractor shall include FORA's construction forces at pre-installation and coordination conferences covering portions of the Work that are to receive FORA-installed work. If portions of the Work depend on FORA-installed products, Contractor shall attend pre-installation conferences conducted by University's construction forces.

3.3 CORRECTION OF THE WORK

- A. Correction of the Work, General: Contractor shall repair or remove and replace defective construction. Contractor shall restore damaged substrates and finishes to match original a-nd new surrounding construction.
 - 1. Contractor shall comply with requirements in Section 01732 Cutting and Patching Procedures.
 - 2. Repairing shall include replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
 - 3. Contractor shall remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
 - 4. Contractor shall repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
 - 5. Contractor shall remove and replace chipped, scratched, and broken glass.
- B. Restoration of Existing Conditions: Contractor shall restore permanent facilities used during construction to their original condition or to match new construction.

END OF SECTION

S201-ITB2, Volume 2 - SECTION 01 73 20 – CUTTING AND PATCHING REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- B. Requirements and procedural requirements for cutting and patching, including:
 - 1. Cutting and patching not required to be performed as part of the Work specified in other Sections.
 - 2. Cutting and patching existing construction altered or disturbed to accommodate Work.
 - 3. Cutting and patching existing construction damaged or defaced during Work as required to restore to existing or better condition at the time of award of Contract.
 - 4. Cutting and patching required to:
 - a. Install or correct non-coordinated Work.
 - b. Remove and replace defective and non-conforming Work.
 - c. Remove samples of installed Work for testing.
- C. Refer to other Sections and drawings for specific requirements of the extent and limitations applicable to cutting and patching, demolishing, or altering existing construction of individual parts of the Work.

1.03 RELATED SECTIONS

- D. Section 01 11 00 Summary of the Work
- E. Section 01 56 00 Temporary Barriers and Enclosures
- F. Section 01 74 00 Cleaning Requirements
- G. Selective Demolition: Cutting and removal of existing construction, as represented on drawings

1.04 SUBMITTALS

- H. Written Requests for Cutting and Alteration: Coordinate with requirements as specified on drawings
 - 1. Contractor shall submit written request in advance of cutting or alteration which affects:

- a. Work by FORA's construction forces or by others under separate contract with FORA.
- b. Existing construction not otherwise indicated to be revised by Work under the Contract.
- 2. Contractor shall include in requests for cutting and alteration:
 - a. Identification of Project.
 - b. Location and description of affected Work. Include shop drawings as necessary to identify locations and communicate descriptions.
 - c. Explanation of necessity for cutting and patching.
 - d. Description of proposed Work and products to be used.
 - e. Alternatives to cutting and patching.
 - f. Effect on existing construction.
 - g. Effect on work by FORA's construction forces or by separate contractors performing work for FORA.
- 3. Contractor shall include written evidence that those performing work under separate contract for FORA have been notified and acknowledge that cutting and patching work will be occurring. Contractor shall include written permission for intended cutting and patching, included scheduled times.
- 4. Contractor shall indicate date and time cutting and patching Work will be performed, including duration.
- 5. Contractor shall describe the extent of cutting and patching required and how it is to be performed.
- 6. Contractor shall describe anticipated results in terms of changes to existing construction; include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
- 7. Contractor shall list products to be used and firms or entities that will perform work.
- 8. Contractor shall list utilities that will be disturbed or affected, including those that will be relocated and those that will be temporarily out-of-service. Contractor shall indicate how long service will be disrupted.
- 9. Where cutting and patching involves addition of reinforcement to structural elements, Contractor shall submit details to show how reinforcement is integrated with the original structure.
- 10. Approval by the FORA Construction Manager to proceed with cutting and patching does not waive the FORA Construction Manager right to later require complete removal and replacement of a part of the Work found to be unsatisfactory.
- 11. Contractor shall minimize effects on FORA operations and on concurrent operations construction by other contractors.

PART 2 - PRODUCTS

2.01 PATCHING MATERIALS

A. Patching at Paving: At portland cement concrete paving, Contractor shall use concrete mix with maximum 3/8-inch aggregate and minimum 3000 psi 28-day compressive strength. Contractor shall provide dowels to existing paving and reinforce new paving with minimum No. 3 reinforcing steel bars at 16-inches on center each way. Welded wire fabric reinforcement will not be acceptable.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examination, General: Before cutting existing surfaces, Contractor shall examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Contractor shall take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered. Contractor shall inspect existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.
 - 1. Before proceeding, Contractor shall meet at the site with parties involved in cutting and patching, including asbestos abatement, mechanical and electrical trades. Contractor shall review areas of potential interference and conflict. Contractor shall coordinate procedures and resolve potential conflicts before proceeding.
 - 2. Beginning of cutting or patching shall be interpreted to mean that existing conditions were found by Contractor to be acceptable.
 - 3. After uncovering existing Work, Contractor shall inspect conditions affecting proper accomplishment of Work.

3.02 PREPARATION

- A. Protection: Contractor shall protect existing facilities during cutting and patching to prevent damage. Contractor shall provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- B. Contractor shall avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- C. Contractor shall take all precautions necessary to avoid cutting existing pipe, conduit or ductwork serving the building lateral.
- D. Weather Protection: Contractor shall provide protection from elements for areas which may be exposed by uncovering Work. Contractor shall maintain excavations free of water.

3.03 **CUTTING AND PATCHING**

A. Cutting and Patching, General: Contractor shall execute cutting, fitting, and patching, excavation and fill, as necessary to complete the Work. Contractor shall employ skilled workers to perform cutting and patching. Contractor shall proceed with cutting and patching at the earliest feasible time and complete without delay. Contractor shall:

- 4. Coordinate installation or application of products for integrated Work. Avoid having to cut and patch new substrates and finishes.
- 5. Uncover completed Work as necessary to install or apply products out of sequence.
- 6. Cut, remove and replace defective and non-conforming Work.
- 7. By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
- B. Cutting: Contractor shall:
 - 1. Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review proposed procedures with the original installer; comply with the original installer's recommendations. Provide appropriate surfaces to receive final finishing.
 - 2. Execute cutting and patching of weather-exposed, moisture-resistant elements and surfaces exposed to view by methods to preserve weather, moisture and visual integrity.
- C. Patching: Contractor shall inspect and test patched areas to demonstrate integrity of the installation.

3.04 CLEANING

A. Cleaning: Contractor shall thoroughly clean areas and spaces where cutting and patching is performed or used as access. Contractor shall remove completely paint, mortar, oils, putty and items of similar nature. Contractor shall thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Contractor shall restore damaged pipe covering to its original condition.

END OF SECTION 01 73 20

S201-ITB2, Volume 2 - SECTION 01 74 00 – CLEANING REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Cleaning during construction.
- B. Cleaning for Contract Completion review and final acceptance of the Work.

1.03 RELATED SECTIONS

A. Additional Requirements: Cleaning for specific products or elements of Work are described in individual product Specification Sections as represented on drawings.

1.04 SUBMITTALS

- A. Product List: Contractor shall submit complete list of all cleaning agents and materials for FORA Construction Manager's review and approval.
- B. Cleaning Procedures: Contractor shall submit description of cleaning processes, agents and materials to be used for final cleaning of the Work. Processes and degree of cleanliness shall be as directed by FORA Construction Manager. All cleaning processes, agents and materials shall be subject to FORA Construction Manager's review and approval.

1.05 QUALITY ASSURANCE

- A. Cleaning and Disposal Requirements, General: Contractor shall conduct cleaning and disposal operations in compliance with all applicable codes, ordinances and regulations, including environmental protection laws, rules and practices.
- B. Cleaning Workers: Contractor shall employ experienced workers or professional cleaners for final cleaning. Contractor shall clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Contractor shall comply with manufacturer's instructions.

PART 2 - PRODUCTS

- 2.01 MATERIALS
 - A. Cleaning Agents and Materials: Contractor shall use only those cleaning agents and materials which will not create hazards to health or property and which will not damage or degrade surfaces. Contractor shall:

- 1. Use only those cleaning agents, materials and methods recommended by manufacturer of the material to be cleaned.
- 2. Use cleaning materials only on surfaces recommended by cleaning agent manufacturer.

PART 3 - EXECUTION

3.01 CLEANING DURING CONSTRUCTION

- A. Garbage Control: Contractor shall control accumulation of debris, waste materials and rubbish. Periodically, Contractor shall dispose of debris, waste and rubbish off-site in a legal manner.
- B. Cleaning, General: Contractor shall clean sidewalks, driveways and streets frequently to maintain public thoroughfares free of dust, debris and other contaminants.
- C. Parking Area Cleaning: Contractor shall keep parking areas clear of construction debris, especially debris hazardous to vehicle tires.
- D. Thoroughfare Clearing and Cleaning: Contractor shall keep site accessways, parking areas and building access and exit facilities clear of mud, soiling and debris. Contractor shall:
 - 1. Remove mud, soil and debris and dispose in a manner which will not be injurious to persons, property, plant materials and site.
 - 2. Comply with runoff control requirements stated above and as required by governing authorities having jurisdiction.
- C. Cleaning Frequency: At a minimum, Contractor shall clean Work areas daily.
- D. Failure to Clean: Should cleaning by Contractor not be sufficient or acceptable to FORA Construction Manager cleaning and deduct costs for such cleaning from sums owed to Contractor.

3.02 CONTRACT COMPLETION REVIEW CLEANING, GENERAL

- A. Contract Completion Review Cleaning, General: Contractor shall execute a thorough cleaning prior to Contract Completion review by FORA Construction Manager. Contractor shall complete final cleaning before submitting final Application for Payment. Contractor shall:
 - 1. Conduct cleaning in compliance with regulations of authorities having jurisdiction and industrial safety standards for cleaning.
 - 2. Employ professional building cleaners to thoroughly clean building.
 - 3. Complete cleaning operations specified below before requesting inspection for Certification of Completion. Contractor shall clean the site, including landscape development areas, of rubbish, litter and foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits.
- B. Waste Disposal, Contractor shall:
 - 1. Remove waste materials from the site and conduct disposal in a lawful manner.
 - 2. Do not burn waste materials.

- 3. Do not bury debris or excess materials on the Project Site.
- 4. Do not discharge volatile, harmful or hazardous materials into drainage systems.
- 5. Where extra materials of value remaining after completion of associated work have become the FORA's property, arrange for disposition of these materials as directed.

3.03 EXTERIOR CLEANING

- A. Site Cleaning: Contractor shall broom clean exterior paved surfaces. Contractor shall rake clean other surfaces of the grounds. Contractor shall:
 - 6. Wash down and scrub where necessary all paving soiled as a result of construction activities. Thoroughly remove mortar droppings, paint splatters, stains and adhered soil.
 - 7. Remove from the site all construction waste, unused materials, excess soil and other debris resulting from the Work. Legally dispose of waste.

3.04 PEST CONTROL

- A. Pest Control: Contractor shall engage an experienced, licensed exterminator to inspect and rid the project area of insects, rodents and other pests.
 - 1. Exterminator shall prepare and submit report of inspection and extermination.
 - 2. Extermination materials shall comply with applicable pest control regulations and not leave toxic residue harmful to humans.

3.05 CLEANING INSPECTION

- A. Cleaning Inspection: Prior to Final Payment or acceptance by FORA for partial occupancy or beneficial use of the premises, Contractor and FORA Construction Manager shall jointly conduct an inspection of interior and exterior surfaces to verify that entire Work is acceptably clean.
- B. Inadequate Cleaning: Should final cleaning be inadequate, as determined by FORA Construction Manager, and Contractor fails to correct conditions, FORA may engage cleaning service under separate contract and deduct cost from Contract Sum.

END OF SECTION 01 74 00

S201-ITB2, Volume 2 - SECTION 01 78 90 – PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.
- 1.02 SECTION INCLUDES
 - B. Requirements for Project Record Documents to be submitted for Contract closeout.
- 1.03 PROJECT RECORD DOCUMENTS
 - A. Project Record Documents, General: Contractor shall not use Record Documents for construction purposes. Contractor shall protect from deterioration and loss in a secure, fire-resistive location
 - B. Record Drawings: Contractor shall record information continuously as Work progresses. Contractor shall not conceal Work permanently until all required information is recorded. Contractor shall:
 - 1. Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual cut & cap of utilities as accurately as possible.
 - 2. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
 - 3. Legibly and to scale, mark record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the work.
 - 4. Note related Change Order numbers where applicable.
 - 5. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
 - 6. Store Record Documents separate from documents used for construction.
 - C. Submission:
 - 1. Contractor shall keep Project Record Documents current, as they will be reviewed for completeness by Architect, Inspector, and University's Representative as condition for certification of each Progress Payment Application.
 - 2. Prior to the date of the Notice of Completion, Contractor shall submit marked Record Documents to Architect for review, approval and further processing.

PART 2 – PRODUCTS (NOT USED)

PART 3– PRODUCTS (NOT USED)

END OF SECTION 01 78 90

S201-ITB2, Volume 2 - SECTION 02 41 16 – DEMOLITION AND REMOVAL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Demolition of buildings
- B. Removal of construction debris

1.03 RELATED SECTIONS

- A. Section 01 11 00 Summary of Work
- B. Section 01 14 00 Work Restrictions
- C. Section 01 33 30 Submittals
- D. Section 01 33 55 Safety and Health Procedures
- E. Section 01 56 00 Temporary Barriers and Enclosures

1.04 SUMMARY

- A. The Contractor shall furnish all tools, equipment, materials, transportation and supplies and shall perform all labor necessary to complete demolition, removal, salvage, and disposal of the Surplus II buildings and all building components, mechanical and electrical components, and structural elements as shown on the Drawings and required by these Specifications.
- B. Section Includes:
 - In general, work will consist of the demolition of ten (10) three story, concrete, surplus military structures (nicknamed Rolling pins) one (1) Cafeteria, one (1) Gym with ancillary building, two (2) Armories, and two (2) Administrative buildings located within the area called Surplus II. Demolition includes but is not limited to, roofing, roof framing, purlins, parapets, trusses, girders, cladding, siding, columns, bracing, foundations, steel grates, mechanical supports, concrete floors, utilities, piping, lighting, flooring, conductors, conduit, and other miscellaneous building elements.
 - 2. All components, equipment, pipelines, attached appurtenances, and utilities within and attached to the interior or exterior of the structures listed above shall be removed, unless directed otherwise. All underground utilities serving the structures shall be cut off or disconnected below the pavement surface a minimum of ten (10) feet from the building foundation, unless directed otherwise.
 - 3. Design and installation of temporary shoring as needed.

- C. Refer to statutory definitions as required by state or local agencies or use the definitions below.
 - 1. Remove: Remove and legally dispose of items, except those identified for use in recycling, re-use, and salvage programs.
 - 2. Demolition: Dismantle, demolish, remove and disposal of all building materials.
 - 3. Dismantle: The process of removing building components and structural framing members by method suitable to avoid free fall and to prevent ground impact or dust generation.
 - 4. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled

1.05 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain property of Owner or FORA, demolished materials shall become the Contractor's property and shall be removed, recycled, or disposed from Project site in an appropriate and legal manner.
- B. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.06 MEETINGS

- A. Pre-demolition Conference: Conduct conference at Project site at least 3 weeks prior to start of demolition.
 - 1. Discuss demolition removal, and finalize disposal plan.
 - 2. Review and finalize demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 3. Review truck route to and from legal disposal site.

1.07 SUBMITTALS

- A. All submittals shall be prepared in accordance with SECTION 01 33 00 SUBMITTAL PROCEDURES.
- B. Submittals for Demolition phase:
 - 1. Demolition Work Plan. Submit proposed demolition and removal plan to FORA and obtain approval before work is started. The Demolition Work Plan shall include the proposed demolitions, removal, salvage, hazardous material handling, and disposal procedures. The following is required:
 - a. Structural Dismantle Plan. Provide plans and narrative on process that will be used to ensure demolition and removal of all building components will be accomplished in a safe and controlled manner.

- b. Procedures for erection and maintenance of temporary structural shoring, scaffolding, removal and disposition of materials. Provide description of structural stabilization during construction and non-work periods. Structural shoring plans shall be signed by a civil or structural engineer licensed in the State of California.
- c. Proposed Protection Measures. Submit report, including drawings, that indicates the measures proposed for protecting individuals and property for environmental protection, for dust control, and for noise control. Indicate proposed locations and construction of barriers.
- d. Detailed sequence of demolition and removal work, including start and end dates for each activity.
- e. Interruption of utility services. Provide utility sequencing and comply with restriction in other sections of specifications. Indicate how long utility services will be interrupted.
- f. Coordination for shutoff, capping, and continuation of utility services. Submit on methods to cap existing utilities.
- 2. Traffic control shall be in accordance with the traffic control plan.

1.08 DOCUMENTS AND PUBLICATIONS

- A. American National Standards Institute (ANSI).
 - 1. ANSI A10.6 1990 Safety Requirements for Demolition Operations

1.09 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with all OSHA, CAL-OSHA, and other applicable federal, state, and local regulations, including air pollution, environmental, health, safety, hauling, and disposal regulations. In the event of conflict between these requirements, the most stringent provisions shall govern.
- B. Daily Reports. Prepare and maintain a Daily Report of demolition and Debris Removal indicating extents, locations and operations. Furnish a copy thereof to the Engineer at the inclusion of each week's work. At a minimum, the Daily Report shall include date, period covered by the report, equipment used, description of activity, types and quantities of demolition materials removed each day and to-date, and other comments relative to the operations.

1.10 PROTECTION

A. Existing Improvements. Protect existing improvements to remain in place in accordance with SECTION 01 14 00 - WORK RESTRICTIONS. Restoration work necessitated by damage

incurred during construction shall be performed at no additional cost to FORA. Restored work shall be subject to final approval by the FORA Construction Manager.

- B. The Contractor shall notify USA at 811 at least two (2) days prior to starting work and shall coordinate all work with utility company representatives. The existence and locations of existing underground facilities shown on the Drawings were obtained from a search of available records. The Contractor shall take precautionary measures to protect any existing facilities shown on the Drawings, and any other which is not of record or not shown on the Drawings.
- C. Protection of Existing Improvements and Facilities: All surface and subsurface existing improvements and facilities within the project limits which are to remain in place and shall be protected from damage from Contractor operation, in accordance with SECTION 01 14 00 Work Restrictions. All active utility services, including water and sewer systems, shall be kept operational at all times.

1.11 SAFETY DURING CONSTRUCTION

- A. The Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of the Project, including safety of all persons and property. This requirement shall be made to apply continuously and not be limited to normal working hours.
- B. Where pedestrian and driver safety is endangered in the work of demolition and removal, and disposal of work, including protecting and restoring existing improvements, use traffic barriers with flashing lights and other approved safety devices. Notify the FORA Construction Manager prior to beginning any such work.
- C. Comply with federal, state, and local hauling and disposal regulations. Conform to ANSI 10.6.
- D. Comply with Health and Safety Plans and Requirements per SECTION 01 41 50 HEALTH AND SAFETY REQUIREMENTS.

PART 2 - PRODUCTS

2.01 PEFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA and Monterey Bay Unified Air Pollution Control District notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and capped.

- B. Review record documents of existing construction. District does not guarantee that existing conditions are same as those indicated in record documents
- C. Survey existing conditions and correlate with requirements indicated to determine extent of demolition and recycling required.
- D. Survey condition of the building to determine whether removing any element might result in a structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during demolition. Retain a licensed and qualified civil or structural engineer to provide analysis, including calculations, necessary to ensure the safe execution of the demolition work.
- E. Perform surveys as the Work progresses to detect hazards resulting from demolition activities.
- F. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or preconstruction videotapes.

3.02 GENERAL

- A. Protect all facilities to remain.
- B. Comply with all applicable federal, state, and local hauling and disposal regulations, including air pollution and environmental regulations.
- C. Comply with all applicable traffic control requirements required by the District and those on the terminal.
- D. Prevent the spread of dust and debris, and avoid the creation of a nuisance or hazard in the surrounding area. Dust nuisance passing beyond the contractor construction limits shall not be allowed.
- E. Noise shall be kept at a reasonable level as related to specific items of equipment used, and their hours of use. Comply noise levels in Contract Agreement.
- F. Provide temporary construction fencing, in accordance with specifications and project Drawings per Section 01 56 00 Temporary Barriers and Enclosures.
- G. Demolition and removal of materials including debris shall be disposed of at legal sites outside Project Site in compliance with all federal, state, and local regulations, approved Materials Management and Disposal Plan, and in accordance with project Health and Safety Plan (HSP). All materials are required to be removed under this Contract. Contractor shall protect existing utilities to remain as shown on the Drawings and will be held responsible for damage resulting from Contractor's failure to protect these utilities.
- H. Blasting is not permitted.

3.03 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
 - 1. Comply with requirements for existing services/systems interruptions specified in Contract Agreement and 01 51 00 Temporary Utilities.

- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas.
 - 1. Coordinate shutoff with nearby occupied buildings.
 - 2. Arrange to shut off indicated utilities with utility companies.
 - 3. Disconnect and remove all interior lights, exterior lights, power control devices, circuitry, power control devices, and all electrical work in the buildings.
 - 4. Disconnect, demolish, and remove fire-suppression systems, plumbing, and associated components indicated to be removed.
 - a. All above ground piping is to be removed. Remove portion of piping indicated to be removed and cap remaining piping with same or compatible piping material. All others not shown shall be plugged with 6-inch thick plug of concrete placed securely in the pipe end to provide closure.

Drainage from waterlines shall be captured and disposed in sanitary sewer or shall be dechlorinated and disposed in the storm drain system.

- b. Equipment to Be Removed: Disconnect and cap services and remove equipment.
- c. All below grade piping is to be capped a minimum of 10 feet from the building footprint.
- d. Contractor shall contact Pacific Gas and Electric to determine best method to cap gas and electric, as required.

3.04 PREPARATION

- A. Site Access and Temporary Controls: Conduct demolition and debris-removal operations to ensure minimum interference with adjacent terminal traffic, vehicular traffic ways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 01.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent facilities and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of demolition
- D. Contractor shall mark locations of utilities to be protected in place, if applicable.

E. Contractor shall saw cut existing pavement to their full depth to provide a clean and smooth edge at limits of demolition.

3.05 EXPLOSIVES

A. Explosives: Use of explosives will not be permitted.

3.06 ENVIRONMENTAL CONTROLS

- A. Comply with federal, state and local regulations pertaining to water, air, solid waste, recycling, chemical waste, sanitary waste, sediment, and noise pollution.
- B. Protection of Natural Resources: Preserve the natural resources within the project boundaries or restore to an equivalent condition.
 - 1. Confine demolition activities to areas defined by work area limits indicated on the drawings.
 - 2. Water Resources: Comply with applicable regulations concerning the direct or indirect discharge of pollutants to underground and natural surface waters.
 - a. Storm Water Pollution Prevention Plan: Prepare implement and maintain Storm Water Pollution Prevention Plan (SWPPP).
 - b. Oily Substances: Prevent oily or other hazardous substances from entering the ground, drainage areas, or local bodies of water in such quantities as to affect normal use, aesthetics, or produce a measurable ecological impact on the area.
 - 1) Store and service construction equipment at areas designated for collection of oil wastes.
 - 3. Dust Control, Air Pollution, and Odor Control: Prevent creation of dust, air pollution and odors.
 - a. Use water suppression to prevent dust emissions.
 - b. If needed, use temporary enclosures and other appropriate methods to limit dust and dirt rising and scattering in air to lowest practical level.
 - b. Store volatile liquids, including fuels and solvents, in closed containers.
 - c. Properly maintain equipment to reduce gaseous pollutant emissions.
 - 4.

3.07 DISPOSAL PRACTICES AND WASTE HAULING

- A. Legally transport and dispose of materials that cannot be delivered to a sourceseparated or mixed recycling facility to a transfer station or disposal facility that can legally accept the materials for the purpose of disposal.
- B. Use waste hauler or Contractor's trucking services and personnel with certifications compliant with local, state and federal requirements. To confirm valid permitted status

of waste haulers, refer to the California Department of Toxic Substances Control (http://www.dtsc.ca.gov/database/Transporters/Trans000.cfm).

- C. Become familiar with the conditions for acceptance of new construction, excavation and demolition materials at recycling facilities, prior to delivering materials.
- D. Deliver to facilities that can legally accept new construction, excavation and demolition materials for purpose of re-use, recycling, composting, or disposal.
- E. Do not burn, bury or otherwise dispose of rubbish and waste materials on project site.

3.08 DEMOLITION

- A. D. Building Demolition: Demolish building components completely and remove from the site except where materials are to be reused, salvaged, or otherwise indicated to remain property of the Owner. Use methods required to complete Work within limitations of governing regulations and as follows:
 - 1. Locate demolition equipment throughout the building and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 2. Demolish concrete and masonry in sizes that will be suitable for acceptance at recycling, disposal facilities, or for crushing and reuse.
 - 3. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation dismantle in sizes suitable for acceptance for recycling or disposal facilities.
 - 4. Break up and remove building elements on grade in small sizes, , suitable for acceptance at recycling or disposal facilities.
- E. Damages: Promptly repair damages to adjacent facilities caused by demolition operations to FORA Construction Manager satisfaction and approval at no additional cost to FORA.

3.09 HANDLING OF DEMOLISHED MATERIALS

- A. General: Promptly transport, dispose, re-use, salvage, recycle demolished materials. Do not allow demolished materials to accumulate or be stored on-site for more than 15 calendar days, unless authorized by the FORA Construction Manager.
- B. Burning: Do not burn materials.
- C. Disposal: Transport demolished materials off project site and legally reuse, salvage, recycle, or dispose of materials.

END OF SECTION 02 41 16

S201-ITB2, Volume 2 - SECTION 31 14 00- STOCKPILING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Requirements for stockpiling construction wastes.

1.03 RELATED SECTIONS

- A. SECTION 01 41 50 HEALTH AND SAFETY REQUIREMENTS
- B. SECTION 01 57 00 TEMPORARY CONTROLS
- C. SECTION 01 33 00 SUBMITTAL PROCEDURES
- D. SECTION 31 10 00 SITE CLEARING
- E. SECTION 31 20 00 EARTH MOVING

1.04 SUMMARY

- A. Construction of lined stockpile areas for all potential impacted soil or waste materials requiring stockpiling.
- B. Movement, drying and monitoring of stockpiled materials.
- C. Management of wastes and soils in stockpiles, including temporary environmental controls and covers.
- D. Relocation or construction of additional stockpile areas to accommodate stockpiled materials or as necessary by the Contractor's phasing of the Work.
- E. Installation of erosion and sediment control measures around stockpile area.
- F. Demolition of stockpile areas including linings and any impacted soils underlying the stockpiles as a result of the failure of any such linings.

1.05 SUBMITTALS

- A. All submittals shall be prepared in accordance with Section 01 33 00 Submittal Procedures.
- B. Stockpiling plans showing locations and details for stockpiles
- C. Stockpile Management Plan, including phasing, equipment, storm water controls, odor and dust management, and demolition.
- D. Contractor shall obtain any necessary permits for stockpiling of construction materials.

PART 2 – PRODUCTS

2.01 GEOMEMBRANE LINERS AND COVERS

A. Geomembrane liners and covers shall be either high density polyethylene (HDPE) or linear low density polyethylene (LLDPE) with a minimum thickness of 10mm.

2.02 EQUIPMENT

A. General

- 1. Equipment used in performing the Work shall be in good working order and shall be operated in accordance with manufacturer's instructions and recommendations.
- 2. All the equipment used in management of stockpiles shall be cleaned properly prior to leaving stockpile areas.
- 3. Any soils contaminated by discharge of fluids from leaky or faulty equipment or stockpile environmental control and containment systems shall be removed and properly disposed. The contaminated area shall be backfilled with clean soil, at no additional cost to the project.

PART 3 - EXECUTION

3.01 STOCKPILE LINER DESIGN

- A. Minimum Stockpile Liner Design shall include use of geomembrane to protect against contamination of underlying soil. Geomembrane shall be either high density polyethylene (HDPE) or linear lowdensity polyethylene (LLDPE) as described in Part 2 and shall be anchored in anchor trenches outside the limits of the stockpile footprint.
- B. Stockpile liners shall be placed on a graded surface in a manner to control and contain storm water run-off from a 100-year 24-hour storm event.

3.02 STORM WATER MANAGEMENT

- A. Storm water management includes handling, storage and disposal of surface water generated within stockpile areas during construction.
- B. Storm water that comes into contact with stockpiles shall be discharged according to the Storm Water Pollution Prevention Plan (SWPPP).
- C. All stockpiled materials shall be placed and stored in accordance with the requirements of the Storm Water Pollution Prevention Plan.
- D. Contractor shall take measures to prevent run off of storm water and waste, including but not limited to use of berms, tarps and grading.

3.03 STOCKPILE CONSTRUCTION AND MANAGEMENT

A. No materials shall be stockpiled on site for more than 5 days unless approved by FORA.

- B. Storage of wastes within stockpiles shall be minimized to the extent possible. After the Contractor has identified the disposition of stockpiled materials, the Contractor shall load and haul the materials to the final disposal location within five (5) working days.
- C. Contractor shall maintain stockpiles until the stockpiled material is transported off site for disposal or is classified and accepted by the Engineer to be reused as fill. Import granular fill stockpiles shall be maintained and kept segregated from other materials until the material is placed in designated excavation areas.
- D. Management of stockpiles, including location within the work area, phasing of their construction, and abandonment shall be at the sole discretion of the Contractor, provided adequate measures for drainage, storm water control and environmental protection are implemented as approved by the Engineer.
- E. Stockpiles shall be located such that they will not interfere with other operations or designated traffic routes. Separate stockpiles shall be maintained for materials as directed by the Engineer.
- F. The ground surface at stockpile locations shall be cleared, grubbed and proof-rolled prior to stockpiling. The ground surface at the stockpile location following disposal shall be smoothed and leveled. Stockpiles shall be protected from contamination that may affect the suitability of material for backfill.
- G. Stockpiles shall be constructed at slopes no steeper than 2:1 (horizontal: vertical) and graded to drain.
- H. Stockpiles shall not be located close to the edge of steep slopes, where the stockpiles could cause slope instability as determined by the Engineer.
- I. Stockpiled wastes shall be covered at the end of each day or prior to a predicted wind or rain event.

END OF SECTION 31 14 00

S201-ITB2, Volume 2 - 31 40 00 – SHEETING SHORING AND BRACING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Construction Drawings, Technical Specifications, Addenda, and Contact Agreement, including any Addenda, including other Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Sheeting and shoring for basement and utility excavations.

1.03 RELATED SECTIONS

- A. Section 01 11 00 Summary of Work
- B. Section 01 33 30 Submittals
- C. Section 01 51 00 Temporary Utilities
- D. Section 02 41 16 Demolition and Removal

1.04 DESCRIPTION

- A. Provide protective installation consisting of shores, wales, braces, posts, piling, sheeting, anchorages and fastenings, both temporary and permanent, for accomplishment and protection of work including, but not limited to, the following:
 - 1. Temporary shoring and sheeting for removal of basement, buried pipelines, and other structure excavations.

1.05 SUBMITTALS

- A. Sheet and Shoring Plan. The Contractor, prior to beginning any trench or structure excavation 5 feet deep or over shall submit to the District's Representative and shall be in receipt of the FORA Construction Manager written acceptance of the Contractor's detailed plan showing design of all shoring, bracing, sloping of the sides of excavation, or other provisions for worker protection against the hazard of caving ground during the excavation of trenches or structures. Submit complete calculations of the sheeting system including sheeting size, wales, rakers, anchor system, struts, earth anchors, anchor piles, tie rods or any other components pertinent to the design prior to the start of any work involving sheeting and bracing. The plans shall be prepared by a Civil or Structural Engineer licensed in the State of California.
 - 1. As a part of the plan, a note shall be included stating that the registered civil or structural engineer certifies that the plan complies with the CALOSHA Construction Safety Orders. Each copy of the plan shall have an original seal and "wet" signature of a Civil or Structural Engineer registered in the State of California across the seal.

- 2. If the Contractor's trench protection system includes the use of a shield, the shield design shall be approved by the Division of Industrial Safety. Structural details shall indicate the maximum pressure the shield can safely withstand, the trench configuration and supporting calculations indicating the maximum pressure against the shield.
- 3. The plan shall include surcharge loads for nearby embankments and structures, for spoil banks, and for construction equipment and other construction loadings. The plan shall indicate for all trench conditions the minimum horizontal distances from the side of the trench at its top to the near side of the surcharge loads.
- 4. The Sheeting and Shoring Plan is submitted for record purposes only. The acceptance of the plan only indicates the submission of plan and does not imply approval of the plan or relieve registered engineer responsibility for the plan. Nothing contained in the section shall be construed as relieving the Contractor of the full responsibility for providing shoring, bracing, sloping, or other provisions which are adequate for worker protection.
- 5. Nothing in this section is intended to relieve the Contractor of his responsibility to carefully examine the contract documents and the site where the Work is to be performed; to familiarize himself with all the local conditions and federal, state, and, local laws, ordinances, rules, and regulations that may affect the performance of any Work; to study all surveys and investigation reports about subsurface and latent physical conditions pertaining to the site; to perform any additional surveys, pot-holing and investigations as the Contractor deems necessary to complete the Work at his bid price; and to correlate the results of all such data with the requirements of the contract documents.

1.06 ALTERNATIVES

A. The use or application of alternative methods and materials, and the employment of proprietary systems under lease or franchise in lieu of that specified herein, may be allowed. Demonstration of suitability and compliance with these Specifications to the satisfaction of FORA will be required.

1.07 SAFETY

- A. Except as otherwise indicated, the following codes apply to the Work of this Section:
 - 1. Title 8, California Administrative Code, Chapter 4, Subchapter 4, Construction Safety Orders, Article 6, Excavations, Trenches, Earthwork, Section 1542, Shafts.

PART 2 - MATERIALS

2.01 PRODUCTS

- A. Use new or used materials complying with provisions of an approved shoring, bracing and sheeting design drawings. Materials shall meet the appropriate specification and be free from defects and damage that might in any way impair their protective function.
- PART 3 EXECUTION
- 3.01 GENERAL

- A. The support system shall extend the main excavation bottom elevation to a depth adequate to prevent lateral movement and to adequately support applied vertical loads. In areas where additional excavation is required below the main excavation subgrade provisions shall be made to prevent movement of main excavation supports. Damage to existing utilities during installation of excavation support system shall be avoided. In flow of ground water shall be prevented and the base of the excavation subgrade shall be maintained in a stable, intact state.
- 3.02 REMOVAL OF SUPPORT SYSTEMS
 - A. Where removal is required wholly or in part, such removal shall be performed in a manner that will not disturb or damage adjacent new or occupied buildings or utilities. Fill all voids immediately by engineer approved means.
 - B. All elements of support systems shall be removed to a minimum depth of 6-feet below final ground surface.
 - C. All damage to property resulting from removal shall be promptly repaired at no cost to FORA. The Contractor's Engineer, in coordination with FORA, shall be the judge as to the extent and determination of the materials and methods for repair.

END OF SECTION 31 40 00 – SHEETING, SHORING, AND BRACING