April 2, 2021

TO: All Bidders  
FROM: Mark Graham  
PROJECT: Bonnie Oehl Elementary School Modernization  
SUBJECT: Addendum 2  
DSA: 04-118651 / 36-55

The following changes, omissions, and/or additions to the Project Manual and/or Drawings shall apply to proposals made for and to the execution of the various parts of the work affected thereby, and all other conditions shall remain the same.

Careful note of the Addendum shall be taken by all parties of interest so that the proper allowances may be made in strict accordance with the Addendum, and that all trades shall be fully advised in the performance of the work which will be required of them.

Bidder shall acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

In case of conflict between Drawings, Project Manual, and this Addendum, this Addendum shall govern.

2 PROJECT MANUAL

2.1 ASBESTOS ABATEMENT SPECIFICATIONS

A. Add the attached asbestos specification in its entirety.

DRAWINGS

Architectural

2.2 DRAWING A1.0 - DEMO OVERALL SITE & FLOOR PLAN

A. Replaced DSA approved Drawing A1.0 with the attached revised Drawing A1.0 in its entirety.

1. REFERENCE NOTES

a. Revised Keynote 0118 by adding 'AND FOOTING'.

b. Revised Keynote 0132 detail reference to '9/10.1'.
c. Revised Keynote 0154 detail reference to '19/10.1'.

d. Revised Keynote 0172 indicating, 'PATCH (E) FLOOR FINISH AS NECESSARY'.

2. DETAIL 1

a. Removed Keynote 0104 from front entry gate that should be removed.

b. Removed Keynote 0132, adjacent from the parking lot, indicating the removal of existing accessible route sign.

3. DETAIL 2

a. Revised Keynote 0152 to Keynote 0153 to 'DEMO (E) ACCESSIBLE PARKING SIGN'.

2.3 DRAWING A1.1 - NEW OVERALL SITE & FLOOR PLAN

A. Replaced DSA approved Drawing A1.1 with the attached revised Drawing A1.1 in its entirety.

1. REFERENCE NOTES

a. Added Keynote 0201 indicating '(N) NO ACCESSIBLE ROUTE SIGN, REF 9/10.1'

2. DETAIL 1

a. Added Room Number 'B13'.

b. Revised scope of work boundaries at eastern exterior work.

c. Added (E) STAFF PARKING LOT tag.

d. Removed Keynote 0010 from western route of travel.

3. DETAIL 2

a. Added Keynote 0201 along path of travel indicating '(N) NON-ACCESSIBLE ROUTE SIGN'.

b. Added dimension string on the firelane lettering and stall striping.

c. Added Keynote 0207 at the firelane indicating, '(N) 4" ACCESSIBLE BLUE PARKING STALL STRIPE'.
2.4 DRAWING A1.2 - DEMO AND NEW ENLARGED SITE PLAN

A. Replaced DSA approved Drawing A1.2 with the attached revised Drawing A1.2 in its entirety.

1. REFERENCE NOTES
   a. Added Keynote 0025 indicating '(E) 4" WIDE WHITE PARKING STRIPES TO REMAIN, PROTECT IN PLACE'.

2. LEGEND
   a. Revised 'DEMO EXISTING CONCRETE SLAB AND RAMP' to 'DEMO EXISTING CONCRETE PAVING'
   b. Revised control joints and expansion joints detail reference from '2/2.1' to '10/10.2'.

3. DETAIL 1
   a. Added 'TYP' and 'OF 4' at keynotes.
   b. Added Keynote 0025 indicating, '(E) 4" WIDE WHITE PARKING STRIPES TO REMAIN, PROTECT IN PLACE'.

4. DETAIL 2
   a. Added dimension string onto parking access sign.
   b. Added Keynote 0208 onto parking access sign.
   c. Added detail reference callout '6/10.2'.

5. DETAIL 5
   a. Relocated keynote arrow to correct gate.

2.5 DRAWING A1.3 - DEMO AND NEW ENLARGED SITE PLAN

A. Replaced DSA approved Drawing A1.3 with the attached revised Drawing A1.3 in its entirety.

1. REFERENCE NOTES
   a. Added Keynote 0132 indicating, 'REMOVE (E) ACCESSIBLE ROUTE SIGN ... REF DTL 9/10.1'.
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b. Added Keynote 0201 indicating '(N) NON-ACCESSIBLE ROUTE SIGN, REF 9/10.1'.

2. LEGEND
   a. Removed irrelevant information from the legend.

3. DETAIL 1
   a. Added Keynote 0132 along non-accessible path of travel.
   b. Added Keynote 0024 at 6" curb.
   c. Added north arrow on plan.

4. DETAIL 2
   a. Added Keynote 0201 indicating '(N) NON-ACCESSIBLE ROUTE SIGN'.
   b. Added north arrow on plan.

5. DETAIL 3
   a. Added dimension string to enlarged site plan.
   b. Revised Keynote 0024 to 0069 indicating, (E) PLANTER SEAT WALL TO REMAIN'.
   c. Called out concrete to align with edge of seat wall.
   d. Added north arrow on plan.

6. DETAIL 4
   a. Added north arrow on plan.

2.6 DRAWING A2.0 - DEMO FIRST FLOOR & CODE PLAN

A. Replaced DSA approved Drawing A2.0 with the attached revised Drawing A2.0 in its entirety.

1. REFERENCE NOTES
   a. Added Keynote 0111 indicating 'DEMO (E) COUNTERTOP'.
   b. Revised Keynote 0115 to 'REMOVE WITH BEST CARE (E) LEARNING WALL AND RETURN TO DISTRICT FOR THEIR USE'.
   c. Revised Keynote 0156 to 'DEMO AND DISPOSE (E) PARTITION WALL'.

d. Added Keynote 0177 indicating, ‘REMOVE AND RETURN TO DISTRICT (E)
PROJECTOR SCREEN.’

2. DETAIL 1

a. Added room tag at ‘NURSE AID B13’ and ‘EXTERIOR MECHANICAL ROOM’.
b. Added room tag at ‘CLASSROOMS A1, B1, B2, B3, B4, B5, B6 and B7’.
c. Revised Keynote 0115 to Keynote 0111 at countertop.
d. Added Keynote 0122 within the ‘TEACHERS WORKROOM’.
e. Added Keynote 0029 at existing doors to remain.
f. Added Keynote 0177 at projector screen on the learning wall.
g. Added TYP on Keynote 0114.
h. Added Keynote 0156 at southern partition wall.
i. Added Keynote 0028 at southern wood column.

2.7 DRAWING A2.1 - NEW FIRST FLOOR & CODE PLAN

A. Replaced DSA approved Drawing A2.1 with the attached revised Drawing A2.1 in its entirety.

1. REFERENCE NOTES

a. Revised Keynote 0911 indicating ‘(N) DEKO MARKERBOARD, COLOR TO BE
SELECTED BY ARCHITECT, REF SPECS’.
b. Revised Keynote 1604 adding ‘WIRE MOLD TO BE PAINTED, COLOR TO BE
SELECTED BY ARCHITECT’.

2. LEGEND

a. Revised interior concrete legend description to ‘PATCH BACK CONCRETE SLAB,
REF DTL 6/10.3’.

3. DETAIL 1

a. Added door tag and room tag at ‘NURSE AID OFFICE, B13’.
b. Removed Keynote 0122 within the Teachers Workroom.

d. Added room tag at 'EXTERIOR MECHANICAL ROOM'.

e. Added room tag at 'CLASSROOMS A1, B1, B2, B3, B4, B5, B6 and B7'.

f. Added Keynote 0912 within 'READING ROOM'

g. Removed section detail call out from floor plan.

h. Remove portion of casework from plan.

i. Added Keynote 1025 at southern fire extinguisher within the 'LIBRARY'.

j. Added Keynotes 0906 and 0909 within 'CLASSROOM B7'.

2.8 DRAWING A2.2 - DEMO AND NEW ENLARGED FIRST FLOOR PLAN

A. Replaced DSA approved Drawing A2.2 with the attached revised Drawing A2.2 in its entirety.

1. REFERENCE NOTES

   a. Revised Keynote 0034 reference detail FROM '7/10.1' TO 8/10.1'.

   b. Revised Keynote 0109 to indicate 'DEMO AND DISPOSE (E) DOOR'.

   c. Revised Keynote 0129 reference detail from '13/2.1' to '12/10.2'.

   d. Revised Keynote 0130 to 'DEMO (E) DOOR IDENTIFICATION SIGNAGE'.

   e. Revised Keynote 0140 to indicate 'REMOVE AND DISPOSE'.

   f. Revised Keynote 0171 to indicate 'REMOVE AND DISPOSE'.

   g. Added Keynote 1002 indicating '(N) WOMAN/GIRLS RESTROOM DOOR SIGN, SEE 3/10.1'.

   h. Added Keynote 1004 indicating, (N) MEN/BOYS RESTROOM DOOR SIGN, SEE 7/10.1'.

2. DETAIL 1

   a. Added room tag.
3. DETAIL 2
   a. Added room tag.
   b. Added Keynote 0109 at restroom door.

4. DETAIL 4
   a. Added room tag.
   b. Added Keynote 2203 at restroom water closet.
   c. Added Keynote 1004 at door.

5. DETAIL 5
   a. Added room tag.
   b. Revised Keynote 1028 to 1002.
   c. Added Keynote 2203 at restroom water closets.

6. DETAIL 11
   a. Removed door tag and grab bar from view.

2.9 DRAWING A3.1 - DEMO FIRST FLOOR RCP

A. Replaced DSA approved Drawing A3.1 with the attached revised Drawing A3.1 in its entirety.

1. REFERENCE NOTES
   a. Added Keynote 0176 indicating 'REMOVE AND RELOCATE (E) PROJECTOR'.
   b. Added Keynote 0178 indicating 'REMOVE AND RETURN TO DISTRICT (E) PROJECTOR'.

2. GENERAL NOTES
   a. Corrected spelling with Note 4.

3. DEMO LEGEND
   a. Revised ACT Note to, 'REF GENERAL NOTES'.
   b. Added hatch and description to 'EXISTING GLULAM BEAM TO REMAIN'
4. DETAIL 1
   a. Added existing projectors and Keynotes 0178 and 0176 to plan.

2.10 DRAWING A3.2 - NEW FIRST FLOOR RCP
   A. Replaced DSA approved Drawing A3.2 with the attached revised Drawing A3.2 in its entirety.
   
   1. REFERENCE NOTES
      a. Added Keynote 1607 indicating, '(E) CEILING MOUNTED PROJECTOR TO BE CENTERED WITH PROJECTOR SCREEN AND LIGHT FIXTURES, REF DTL 5/10.2 & ELECTRICAL DRAWINGS.'

   2. NEW LEGEND
      a. Revised gypsum board detail reference to 'REF 4/9.1 & STRUCT DWGS.'

3. DETAIL 1
   a. Added projector and Keynote 1607 within 'COMPUTER ROOM'.
   b. Added note 'CENTER LIGHT TO ALIGN TO EXISTING' within corridor.
   c. Revised ceiling plan to depict soffit and soffit height.

2.11 DRAWING A6.1 - INT. ELEV. AND SECTIONS
   A. Replaced DSA approved Drawing A6.1 with the attached revised Drawing A6.1 in its entirety.
   
   1. REFERENCE NOTES
      a. Revised Keynote 0031 adding, 'BEAM TO BE PRIMED & PAINTED, COLOR TO BE SELECTED BY ARCHITECT'
      b. Revised Keynote 0911 to indicate '(N) DEKO MARKERBOARD ... REF SPECS'.
      c. Revised Keynote 1301 adding, 'COLOR AND FONT TO BE SELECTED BY ARCHITECT'.

   2. NEW LEGEND
      a. Added general note; 'NOTE: ... ARCHITECT'
3. DETAIL 1
   a. Added dual marker boards and projector screen.

4. DETAIL 2
   a. Wrote 'TYP OF.' on vinyl lettering.
   b. Revised the location of the aluminum letterings.

5. DETAIL 3
   a. Called out glulam 'TO BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT.'

6. DETAIL 4
   a. Visibly shown signage.

7. DETAIL 5
   a. Shown corridor beyond.

8. DETAIL 12
   a. Called out what area is within the foreground and background.

2.12 DRAWING 8.1 - DOOR AND FRAME SCHEDULE

A. Replaced DSA approved Drawing 8.1 with the attached revised Drawing 8.1 in its entirety.

1. WINDOW SCHEDULE
   a. Added remarks and legend to window schedule.

2. DETAIL 4
   a. Flipped the window section to match the plans.

3. DETAIL 6
   a. Added detail header section callout 15/8.1 on 'FRAME TYPE 2.'
   b. Revised detail jamb section callout to 4/8.1 and 1/8.1 on 'FRAME TYPE 3.'

4. DETAIL 13
   a. Revised the door schedule to match the plans.
b. Added remark 14 to legend which called out ‘INTERIOR DOOR & FRAME TO BE ... BY ARCHITECT’

5. ‘DETAIL 15
   a. Added ‘WHERE OCCURS’ on section detail.

2.13 DRAWING 8.2 - DOOR AND FRAME DETAILS
   A. Replaced DSA approved Drawing 8.2 with the attached revised Drawing 8.2 in its entirety.
      1. DETAIL 7
         a. Added door jamb to detail to match plan.

2. MATERIAL LEGEND
   a. Added Note 7 to material legend calling out ‘REWORK CEILING GRID ... REF 2.60/9.4’.
   b. Added ‘W/ VINYL GRAPHIC ON GLASS’ to storefront wall abbreviations.

3. FINISH SCHEDULE
   a. Added ‘CLASSROOM B7’ to finish schedule.
   b. Revised ‘TEACHER’S WORKROOM’ ceiling material.

2.14 DRAWING 9.2 - ROOM FINISH
   A. Replaced DSA approved Drawing 9.2 with the attached revised Drawing 9.2 in its entirety.
      1. REFERENCE NOTES
         a. Revised Keynote 0911 to indicate, ‘(N) DEKO MARKERBOARD... REF SPECS’.
         b. Added Keynote 1604 indicating, ‘(N) WIREMOLD PER ELEC... COLOR TO BE SELECTED BY ARCHITECT’.

2. LEGEND
   a. Reworded the vinyl graphic that will be placed on the glass description to ‘VINYL GRAPHIC ON GLASS, IMAGE...’
   b. Called out ‘REF DETAILS 18, 19, & 20/10.3 COLOR 1 & 2. COLORS TO BE SELECTED BY ARCHITECT’ within the tackable wall portion.
c.  Revised the VCT to LVT.

3.  DETAIL 1
   a.  Added adjacent room tags on plans.
   b.  Removed irrelevant keynote within the 'TEACHERS WORKROOM'.
   c.  Added dimensions and description to 'ALIGN W/ COLUMN FINISH' where the flooring meets the column.

4.  DETAIL 2
   a.  Revised elevation to show two markerboards and projector screen.

5.  DETAIL 3
   a.  Added wiremold and Keynote 1604.
   b.  Added dimension string to the fire extinguisher.

6.  DETAIL 4
   a.  Revised wall finish to tackable wallboard.

7.  DETAIL 5
   a.  Added casework tags.

8.  DETAIL 6
   a.  Revised wall finish to tackable wallboard.
   b.  Added casework tags.

9.  DETAIL 7
   a.  Revised verbiage to 'VINYL GRAPHIC ON GLASS'

10. DETAIL 8
   a.  Added casework tags.
   b.  Added vinyl graphic hatch over storefront glass.
2.15 DRAWING 9.3 - ROOM FINISH

A. Replaced DSA approved Drawing 9.3 with the attached revised Drawing 9.3 in its entirety.

1. REFERENCE NOTES
   a. Revised Keynote 0031 to include, ‘BEAM TO BE PRIMED AND PAINTED, COLOR TO BE SELECTED BY THE ARCHITECT’.
   b. Revised Keynote 0914 to include, ‘PRIMED AND PAINTED’.

2. LEGEND
   a. Revised tackable wallboard description to include, ‘REF DETAILS 18, 19 & 20/10.3 COLOR 1 & 2, COLORS TO BE SELECTED BY ARCHITECT’.

3. DETAIL 1
   a. Wrote 'TYP OF.' on vinyl lettering.
   b. Revised the location of the aluminum letterings.

4. DETAIL 3
   a. Added door tags to elevation.
   b. Called on which elevation is in the foreground and background.

5. DETAIL 4
   a. Added door tag to elevation.
   b. Added glass distinction to glass.
   c. Called out which elevation is in the foreground and background.
   d. Added Keynote 0909 to the wall base.

6. DETAIL 5
   a. Added Keynote 0909 to the wall base.
   b. Called out 'TYP OF' on the wall hooks.
   c. Added section detail.
7. DETAIL 6  
   a. Added vinyl graphic hatch on B8A storefront.

2.16 DRAWING 10.1 - SPECIALTY DETAILS

   A. Replaced DSA approved Drawing 10.1 with the attached revised Drawing 10.1 in its entirety.

   1. SIGNAGE SCHEDULE
      a. Revised detail reference on the 'STUDENT DROP OFF SIGN' to 19.10.1.
      b. Revised detail reference on the 'NON-ACCESSIBLE ROUTE' to 9/10.1.

   2. DETAIL 9
      a. Added new detail in its entirety.

   3. DETAIL 19
      a. Added new detail in its entirety.

2.17 DRAWING 10.2 - SPECIALTY DETAILS

   A. Replaced DSA approved Drawing 10.2 with the attached revised Drawing 10.2 in its entirety.

   1. DETAIL 5
      a. Removed irrelevant detail and replaced in its entirety.

   2. DETAIL 6
      a. Added where specific items are located with the detail, either exterior or interior only.

   3. DETAIL 7
      a. Revised font note to indicate 'FONT TO BE CENTURY GOTHIC ... CHOSEN BY THE ARCHITECT'.

   4. DETAIL 18
      a. Revised header blocking.
2.18 DRAWING 10.3 - SPECIALTY DETAILS
   A. Replaced DSA approved Drawing 10.3 with the attached revised Drawing 10.3 in its entirety.
      1. DETAIL 18
         a. Added new detail in its entirety.
      2. DETAIL 19
         a. Added new detail in its entirety.
      3. DETAIL 20
         a. Added new detail in its entirety.

Electrical

2.19 DRAWING E2.2 - DEMO & NEW POWER FLOOR PLANS
   A. Replaced DSA approved Drawing E2.2 with the attached revised Drawing E2.2 in its entirety.
      1. Revised Keynotes 8, 9, and 10 from "CAT-6" cable to "CAT-6A" cable.
      2. Added Keynote 8 to "WAP" in Room B9.
      3. Added existing "Existing Relocated" projector to Room B9.
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Mechanical

2.20 DRAWING M2.1 - MECH. DEMO & NEW ENLARGED FIRST FLOOR PLAN

A. Replaced DSA approved Drawing M2.1 with the attached revised Drawing M2.1 in its entirety.

1. Relocated the existing thermostats.

END OF ADDENDUM 2

Submitted by,

MARK GRAHAM
Architect, AIA
LEED™ GA
NOMA
Principal

Attachments: Asbestos Abatement Specifications
FIRE SAFETY DURING CONSTRUCTION

TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS.

IMPROVEMENTS

ENERGY CONSERVATION STANDARDS PROVIDED IT (THEY) IS PROPOSED BUILDING(S) WILL BE IN COMPLIANCE WITH THE REQUIREMENTS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS.

THE DESIGN INDICATED HEREIN COMPLIES WITH THE REQUIREMENTS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS.

STOP SYSTEMS SHALL BE AS SPECIFIED.

FIRE SYSTEMS ARE SHUT DOWN FOR ALTERATIONS IN THE PROVISIONS OF CHAPTER 33.

HYDRANTS OR FIRE APPLIANCES.

OF FIREFIGHTING SHALL BE PROVIDED. CONSTRUCTION PURPOSES AND SHALL BE WEATHERSTRIPPED (EXCEPT FOR UNFRAMED OPAQUE PORTIONS OF FRAMED WALLS (EXCEPT DOORS). VISIBILITY TO THE ENVELOPE THAT ARE POTENTIAL AND OBSERVABLE CONDITIONS WAS PREPARED FROM INFORMATION IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN RECIPROCITY OF THE WORK SHOWN ON THESE DRAWINGS AS EXISTING CONDITIONS.

ENGINEERING CALCULATIONS HAVE BEEN ACCEPTED AND FORMULATED.

THE DIVISION OF THE STATE ARCHITECT PRIOR TO THE INTERPRETATION OF REGULATION DOCUMENT IR A VALUE IN ACCORDANCE WITH THE NATIONAL FENESTRATION RATING COUNCIL'S INTERIM FORMULATED.

A COMPLIANT RESOLUTION WILL BE WRITTEN AND A COMPLIANT RESOLUTION WILL BE WRITTEN.

TACOMA, WASHINGTON 98402

IN 2019, THE STATE OF WASHINGTON PASSED BILL 652, WHICH ADDED ENFORCEABLE SAFETY REQUIREMENTS FOR CONSTRUCTION CONTRACTORS. THE BILL AMENDS THE WASH. CODE §§ 29.20.020 AND 29.20.030 TO REQUIRE CONSTRUCTION CONTRACTORS TO COMPLY WITH SAFETY STANDARDS TO AVOID INJURY TO WORKERS. CONSTRUCTION CONTRACTORS ARE LIABLE FOR VIOLATIONS MADE BY THE CONTRACTOR OR THEIR EMPLOYEES. THE BILL APPLIES TO CONTRACTORS ENGAGED IN CONSTRUCTION WORK FOR ANY PURPOSE IN ANY LOCATION INSIDE THE STATE OF WASHINGTON. THE BILL COMPLIES WITH THE REQUIREMENTS OF THE CONSTRUCTION CONTRACTORS' RESILIENCY REQUIREMENTS OF TITLE 24, PART 7, CALIFORNIA CODE OF REGULATIONS.

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE DIVISION IF THE CONTRACTOR BELIEVES ANY SAFETY VIOLATION HAS BEEN COMMITTED.

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SHOULD ANY UNIDENTIFIED CONDITIONS BE DISCOVERED. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE DIVISION IF THE CONTRACTOR BELIEVES ANY SAFETY VIOLATION HAS BEEN COMMITTED.

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**GENERAL NOTES**

**DEMO ENLARGED FIRST FLOOR PLAN - A1 & B**

**LEGEND**

1. **V.V.**
   - Walls to be demolished
   - Walls to be left in place
   - Ceilings to be removed
   - Walls to be sawn back to district
   - Hallway debris to remain

2. **H.H.**
   - Hallway to be left in place
   - Hallway to be sawn back to district
   - Hallway debris to remain

3. **F.F.**
   - Floor to be left in place
   - Floor to be sawn back to district
   - Floor debris to remain

4. **P.P.**
   - Plumbing to be left in place
   - Plumbing to be sawn back to district
   - Plumbing debris to remain

5. **E.E.**
   - Electrical to be left in place
   - Electrical to be sawn back to district
   - Electrical debris to remain

6. **S.S.**
   - Sanitary to be left in place
   - Sanitary to be sawn back to district
   - Sanitary debris to remain

7. **A.A.**
   - Air to be left in place
   - Air to be sawn back to district
   - Air debris to remain

8. **M.M.**
   - Mechanical to be left in place
   - Mechanical to be sawn back to district
   - Mechanical debris to remain

9. **L.L.**
   - Lighting to be left in place
   - Lighting to be sawn back to district
   - Lighting debris to remain

**REFERENCE NOTES**

**1. DEMOLITION NOTES:**
   - Contractor to remove all existing fixed furniture, fixtures, and equipment.
   - Contractor to sawn back all exterior walls.
   - Contractor to sawn back all interior walls.

**2. CONTRACTOR TO:**
   - Remove all existing fixed furniture, fixtures, and equipment.
   - Remove all existing exterior walls.
   - Remove all existing interior walls.

**3. WHEN DEMOLISHING SLAB:**
   - Review requirements with contractor.
   - Coordinate with contractor to install dowel bars for re-pour of concrete and sealing of vapor barrier.

**4. CONTRACTOR TO:**
   - Skim coat all existing interior walls.
   - Prime and paint with satin or semi-gloss wall paint.
   - Final finish to be selected by architect.

**5. CONTRACTOR TO REMOVE:**
   - All existing books from bookshelves.
   - All existing floor anchors.
   - All existing interior wall anchors.
   - All existing interior wall anchors.

**6. SAMPLING:**
   - Contractor to sample all existing materials for review.
   - Contractor to sample all existing materials for review.

**7. SPECIFICATION:**
   - Refer to specification for additional demolition requirements.
   - Refer to specification for additional demolition requirements.

**8. OTHER DISCIPLINES:**
   - Refer to other disciplines for work to be modified or to remain.
   - Refer to other disciplines for work to be modified or to remain.

**9. DEMO Welding, and all other items that interfere with new work.**
   - Refer to other disciplines for work to be modified or to remain.
   - Refer to other disciplines for work to be modified or to remain.

**10. CLIENT FOCUSED • PASSION DRIVEN**
   - Refer to other disciplines for work to be modified or to remain.
   - Refer to other disciplines for work to be modified or to remain.

**11. STANDARD:**
   - Refer to standard for additional demolition requirements.
   - Refer to standard for additional demolition requirements.

**12. MATERIALS:**
   - Refer to materials for additional demolition requirements.
   - Refer to materials for additional demolition requirements.

**13. CODE PLAN:**
   - Refer to code plan for additional demolition requirements.
   - Refer to code plan for additional demolition requirements.

**14. GENERAL:**
   - Refer to general for additional demolition requirements.
   - Refer to general for additional demolition requirements.

**15. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**16. PLAN:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**17. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**18. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**19. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**20. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**21. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**22. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**23. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR

**24. SEE DWG 1/A3.1 FOR:**
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**25. SEE DWG 1/A3.1 FOR:**
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**26. SEE DWG 1/A3.1 FOR:**
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**27. SEE DWG 1/A3.1 FOR:**
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**31. SEE DWG 1/A3.1 FOR:**
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**32. SEE DWG 1/A3.1 FOR:**
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**34. SEE DWG 1/A3.1 FOR:**
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**35. SEE DWG 1/A3.1 FOR:**
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**36. SEE DWG 1/A3.1 FOR:**
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**41. SEE DWG 1/A3.1 FOR:**
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**42. SEE DWG 1/A3.1 FOR:**
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**43. SEE DWG 1/A3.1 FOR:**
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**45. SEE DWG 1/A3.1 FOR:**
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**46. SEE DWG 1/A3.1 FOR:**
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**47. SEE DWG 1/A3.1 FOR:**
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**48. SEE DWG 1/A3.1 FOR:**
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**49. SEE DWG 1/A3.1 FOR:**
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   - SEE DWG 1/A3.1 FOR

**50. SEE DWG 1/A3.1 FOR:**
   - SEE DWG 1/A3.1 FOR
   - SEE DWG 1/A3.1 FOR
OCCUPANT LOAD FACTORS ARE ACCORDING TO CBC SECTION 1004, TABLE NO.

THE TOTAL NUMBER OF SEATS, BUT IN NO CASE LESS THAN TWO. 25% MINIMUM OF

1. ASSISTIVE-LISTENING SYSTEMS SHALL BE PROVIDED IN ACCORDANCE WITH CBC

2. DIMENSIONS ARE TO CENTER OF STUDS

3. ALL INTERIOR WALLS ARE ATTACHED TO ROOF STRUCTURE, REF WALL DETAIL

ASSISTIVE LISTENING NOTES:

1. REFER TO ROOM FINISH SCHEDULE, SHEET 9 SERIES, FOR INTERIOR FINISHES

2. WINDOW TAG, REF WINDOW SCHEDULE

3. POST TO BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT

4. WALL TO BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT

5. 5/8" GYPSUM BOARD, PAINTED, COLOR SELECTED BY ARCHITECT

6. CASEWORK, REF SHEET SERIES 6

7. ROOM IDENTIFICATION SIGN TO REMAIN, PROTECT IN PLACE

8. WALL MOUNTED HI-LOW DRINKING FOUNTAIN AND BOTTLE FILLER,

9. SCHEDULE AND HARDWARE GROUP

10. EXIT SIGN

11. RECESS FIRE EXTINGUISHER, REF DTL 21/10.2

12. ROOM IDENTIFICATION SIGN, SEE DTL 10/10.1

13. ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

14. POST TO BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT

15. EXIT SIGNAGE, REF DTL 21/10.1

16. WALL MOUNTED EXIT SIGN, REF 2/10.2

17. EXIT SIGNAGE, REF DTL 21/10.2

18. EXIT SIGNAGE, REF DTL 21/10.2

19. EXIT SIGNAGE, REF DTL 21/10.2

20. EXIT SIGNAGE, REF DTL 21/10.2

21. LIBRARY - READING ROOM 50

22. WORKROOM TYP

23. WORKROOM TYP

24. 900 = FLOOR AREA

25. A-3 100

26. B9 (N) WALL MOUNTED EXIT SIGN, REF 2/10.2

27. B6 (N) ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

28. B6 (N) ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

29. B6 (N) ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

30. ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

31. ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

32. ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

33. ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

34. ACCESSIBLE ENTRY SIGNAGE WITH ARROW, REF 1/.10.2

35. CORRIDOR 0

36. CLIENT FOCUSED • PASSION DRIVEN

4. 1/4" = 1'-0"

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT
NEW ENLARGED FIRST FLOOR PLAN - A1 & B
DEMO LEGEND

REFERENCE NOTES

GENERAL NOTES

CONTRACTOR SHALL USE EXTREME CARE IN REMOVING ITEMS THAT ARE TO BE REUSED OR MODIFIED FOR FUTURE USE.

CONTRACTOR SHALL CAREFULLY REMOVE ALL ITEMS ATTACHED TO THE CEILING THAT ARE NOT CALLED OUT TO BE DEMOLISHED. CLEAN, PROTECT AND REINSTALL ALL ITEMS ONTO NEW CEILING.

REUSE SPRAY WIRES IN COMPUTER LAB CEILING AREAS ONLY

REMOVE ALL CEILING TILES, CEILING GRIDS, HANGER AND SPRAY WIRES, COMPRESSION POSTS, PERIMETER TRIM AND PROVIDE ALL NEW PER SHEET 9.1

CONTRACTOR TO DEMOLISH CEILING AT GRID INTERSECTION WITHOUT DAMAGING CEILING GRID AND TILES WITHIN CLASSROOMS THAT ARE NOT WITHIN SCOPE OF NEW CONSTRUCTION,

DEMO DEMOLITION NOTES:

1. CONTRACTOR SHALL USE EXTREME CARE IN REMOVING ITEMS THAT ARE TO BE REUSED OR MODIFIED FOR FUTURE USE.

2. CONTRACTOR SHALL CAREFULLY REMOVE ALL ITEMS ATTACHED TO THE CEILING THAT ARE NOT CALLED OUT TO BE DEMOLISHED. CLEAN, PROTECT AND REINSTALL ALL ITEMS ONTO NEW CEILING.

3. REUSE SPRAY WIRES IN COMPUTER LAB CEILING AREAS ONLY

4. REMOVE ALL CEILING TILES, CEILING GRIDS, HANGER AND SPRAY WIRES, COMPRESSION POSTS, PERIMETER TRIM AND PROVIDE ALL NEW PER SHEET 9.1

5. CONTRACTOR TO DEMOLISH CEILING AT GRID INTERSECTION WITHOUT DAMAGING CEILING GRID AND TILES WITHIN CLASSROOMS THAT ARE NOT WITHIN SCOPE OF NEW CONSTRUCTION,

LIGHT FIXTURE TO BE DEMOLISHED REFER TO ELECTRICAL PLANS UNLESS NOTED OTHERWISE TO BE REMOVED AND RELOCATED

LOCAL FURNITURE TO BE DEMOLISHED REFER TO FURNITURE PLANS LOCAL FURNITURE TO BE REMOVED AND INDICATED

DEMO FIRST REFLECTED CEILING PLAN - A1 & B

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT
MODERNIZATION
2525 N PALM AVE, HIGHLAND, CA 92346

1/4" = 1'-0"
ANCHOR @ 18" O.C., 3" EMBED
ICC-ES ESR 2236, MIN MAX 6" FROM EDGE, 3/8" SIMPSON SDS SPECS SCHEDULE &
NEW SLIDING 1/2" MAX SLAB (E) CONC FINISH FLOOR, REF 9.1 1/4" TRANSITION STRIP TYP.
SLIDING DOOR DETAIL 1/4" MAX TYP SLIDING WALL SILL 4" 1 3/4" 1/2" 1 3/4" 4 1/2" 2 1/2" 2 1/4" 2 1/4"
WEDGE 1/4" TRANSITION 48 - - 0" 0" 0"
INT HEAD / JAMB VARIES 1 1/2" 1/4"
DEAD BOLT FLUSH PULL
#12 1.5" L. WOOD SCREW @ 12" O.C.
WD STUD ANCHOR TIES @ 24" OC
HM FRAME REF FIN SCHED FOR FIN HEADER WHERE OCCURS
1/2" PLYWOOD SHEATHING
5/8" GYP BD
2"
- 3/8"
- 3/8"
2" 1/16"
- -
- -
- -
- -
- -
- -
- -
7 6 5 2
4 3 2 1

SECTION VIEW
PLAN VIEW
SECTION VIEW
SECTION VIEW
SECTION VIEW
PLAN VIEW
SECTION VIEW
SECTION VIEW
SECTION VIEW
SECTION VIEW
SECTION VIEW
ASBESTOS ABATEMENT SPECIFICATIONS

Prepared For
San Bernardino City Unified School District
Facilities Management, Maintenance & Operations Department
956 West 9th Street
San Bernardino, CA 92411

Site Location
Bonnie Oehl Elementary School
2525 North Palm Avenue
Highland, CA 92346

Date: March 15, 2021
SECTION 02 82 00
ASBESTOS REMEDIATION

PART 1 – GENERAL

1.0 SCOPE OF WORK

1.1. Scope of Work

The scope of work for the abatement project will involve the abatement of Asbestos Containing Materials (ACM) prior to renovation activities at the subject property. The ACMs listed in the tables below are contained in the attached EFI Global Limited Asbestos, Lead & Hazardous Materials Assessment Report, dated December 21, 2018, prepared for the San Bernardino City Unifies School District, for Bonnie Oehl Elementary School, located at 2525 North Palm Avenue, Highland, CA 92346. This report details the specific materials that require special handling under this specification.

Note that the quantities listed in the below table are estimates only. It is the Contractor’s responsibility to quantify materials that are to be impacted by the scheduled renovation activities, as outlined in the construction contract documents prior to bid submittal, as part of the Contractor’s due diligence, and prior to initiating renovation activities.

Specific contractor responsibilities include, but are not limited to the following:

- The Contractor is responsible for the protection and decontamination of fixtures and equipment remaining in the work area, prior to, and after abatement.
- The Contractor shall furnish all labor, materials, services, insurance, equipment, and decontamination facilities to carry out the complete removal, and disposal of all ACM and ACCMs identified in these specifications that are to be impacted by the renovation activities.
- Work shall be performed in accordance with all applicable regulations, codes, ordinances, and standards of governing authorities having jurisdiction and the requirements specified herein. Where applicable state or local standards are more stringent than federal standards, the Abatement Contractor shall adhere to the most stringent standards.
- The Contractor shall extend full cooperation to the Owner in all matters involving the use of the Owner’s facilities. At no time shall the Contractor cause or allow there to be caused conditions that may cause risk or hazard to the general public or conditions that might impair safe use of the facility. The use of the facility’s electricity, water or like utilities by the Contractor shall be coordinated through the Owner.
- In addition, the Contractor shall furnish all labor, material, supervision, construction tools, and equipment necessary to perform the following work:
  - Removal of all identified ACM and ACCM prior to renovation activities.
  - Provision and maintenance of environmental and occupational safety protective measures, equipment, and procedures at the work site, including appropriate engineering controls.
  - Cleaning of the work site to completely remove all visually apparent asbestos and reduce airborne asbestos fiber concentrations.
  - If, in the course of removal of ACM and ACCMs from the site, the Contractor discovers any other ACMs or PACMs other than those described in plans, reports, and / or specifications, the
Contractor shall notify the Owner and/or Consultant in writing, and after receiving the Owner’s approval, the Contractor will remove and dispose of such item(s).

- With respect to available utilities, the Contractor shall coordinate access and use all utilities as needed for the duration of the project with the Owner. If utilities are unavailable, the Abatement Contractor will be required to provide the utilities at the Abatement Contractor’s own cost.
- The Abatement Contractor shall obtain all necessary permits from the Owner, City of San Bernardino, and other local agencies, and the South Coast Air Quality Management District (SCAQMD), and any other authorities having jurisdiction.
- Packaging, transport, and disposal of all asbestos to a disposal site approved by the applicable federal, state, and local authorities shall be the sole responsibility of the Contractor, including any certifications or statements of non-friability requires by the landfill.
- Cooperation with the Owner and/or Consultant with regards to air monitoring and observation of procedures.

Below are summary tables of specific materials that require special handling under this specification:

### Table 1: Homogenous Building Materials & Asbestos Content

<table>
<thead>
<tr>
<th>Homogenous Materials Number</th>
<th>Material Description</th>
<th>Location</th>
<th>Asbestos Content (% Weight)</th>
<th>Material Quantity</th>
<th>Friability **</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yellow Adhesive Associated with Multicolored Carpet</td>
<td>Room B8 Room B9</td>
<td>&lt;1.0% Chrysotile</td>
<td>2,850 SF</td>
<td>Non-Friable</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>2’x4’ Ceiling Tiles</td>
<td>Room B8 Room B9</td>
<td>None Detected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Drywall</td>
<td>Room B8 Room B9</td>
<td>None Detected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Drywall Joint Compound</td>
<td>Room B8 Room B9</td>
<td>None Detected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Fiberboard</td>
<td>Room B8 Room B9</td>
<td>None Detected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4” Black Base Cove and Mastic</td>
<td>Room B8 Room B9</td>
<td>None Detected</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* All quantities are approximations and should be verified by an abatement contractor.

** Non-friable materials may be rendered friable during removal by mechanical or other aggressive methods.

1.2. DEFINITIONS

1. **Abatement** – Procedures to control fiber release from Asbestos Containing Materials (ACM) or Asbestos Containing Construction Materials (ACCM). Includes removal, encapsulation, enclosures, repair, demolition, and renovation activities but does not include asbestos related disturbance.

2. **Aggressive Method** – Means removal or disturbance of building material by sampling, abrading, grinding, or method that breaks, crumbles, or disintegrates intact ACM.

4. Air filtration and ventilation system – A portable exhaust system, equipped with HEPA filtration, and capable of maintaining a constant air flow into a regulated area from adjacent areas and exhausted outside the regulated area.

5. Amended Water – Water to which a surfactant (wetting agent) has been added.

6. Area Sampling – Means sampling of asbestos fiber concentrations which approximates the concentrations of asbestos in the theoretical breathing zone but is not actually collected in the breathing zone of an employee.

7. ANSI – American National Standards Institute.

8. Asbestos – Means the asbestos form varieties of chrysotile, crocidolite, amosite, anthophyllite, tremolite and actinolite.

9. Asbestos Containing Construction Material (ACCM) – Means any manufactured construction material which contains more than one tenth of one percent (0.1%) asbestos by weight.

10. Asbestos Containing Material (ACM) – Means any material containing more than one-percent (1%) asbestos.

11. Asbestos Containing Waste (Non-Hazardous) – Non-friable asbestos containing material including, but not limited to: floor covering, roofing materials and cementitious materials requiring disposal.

12. Asbestos Containing Waste (Hazardous) – Friable asbestos containing materials and asbestos contaminated objects and debris requiring disposal.

13. Asbestos Related Disturbance – is the drilling, coring, removal or similar disturbance of ACCM or ACM not to exceed three (3) square feet in any one opening and not to disturb 100 square feet or greater cumulatively on any one project (contract).


15. Authorized Person – means any person authorized by the employer and required by work duties to be present in regulated areas.

16. Building ID Number or Code – A six-digit alphanumeric identification code assigned to each building on site.

17. Bulk Samples – Samples of building or other materials collected for analysis to determine the presence and quantities of asbestos.

18. Class I, II, III, and IV asbestos work has the meaning as defined in California Code of Regulations Title 8, Section 1529.

19. Class I Asbestos Work – Activities involving the removal of thermal system insulation (TSI) and surfacing ACM and PACM

20. Class II Asbestos Work – Activities involving the removal of ACM which is not TSI or Surfacing Material. This includes, but is not limited to, the removal of asbestos containing wallboard, floor tiles, and sheeting, roofing and siding shingles, and construction mastics.
21. Class II Asbestos Work – Repair and Maintenance operations where ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed.

22. Clean Room – An uncontaminated area of room, which is a part of the worker Decontamination Enclosure System with provisions for storage of worker’s street clothes and clean protective equipment.

23. Closely Resemble – Means the major workplace conditions, which have contributed to the levels of historic asbestos exposure, are no more protective than the conditions of the current workplace.

24. Competent Person – Has the same meaning as defined in the California Code of Regulations Title 8, as it relates to “Competent Person.”

25. Controlled Disturbance – an activity by which a contractor disturbs an asbestos containing material or an asbestos containing construction material using the work practices allowed for in this specification and in compliance with regulatory limitations.

26. Critical Barrier – One or more layers of plastic sealed over all openings into a work area or any other similarly places barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.

27. Curtained Doorway – A device to allow ingress and egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing two overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, securing the vertical edge of one sheet along one vertical side of the doorway and securing the vertical edge of the other sheet along the opposite vertical side of the doorway. Other effective designs may be submitted for review.

28. Decontamination – The process of eliminating asbestos contamination from building surfaces, objects, and property, by cloths, mops, or other utensils dampened with water and disposed of afterwards as asbestos contaminated waste.

29. Decontamination Enclosure System – Means an enclosed area, which is adjacent and connected to the regulated area, consisting of an Equipment Room, Shower Room, and Clean Room for the decontamination of workers, materials, and equipment contaminated with asbestos.

30. Demolition – The wrecking or taking out of any load supporting structural member of a facility together with any related handling operations.

31. Disturbance – Means contact that releases fibers from ACM or PACM or debris containing ACM or PACM.

32. DOSH – Division of Occupational Safety & Health or Cal/OSHA.

33. DOT – Department of Transportation

34. DTSC – Department of Toxic Substances Control.

35. Encapsulating Material – A liquid material applied to asbestos containing materials which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging agent) or by penetrating into the material and binding its components together (penetrating encapsulating material).

36. Encapsulation – The application of an encapsulating material to asbestos containing materials to prevent the release of asbestos fibers into the air.
37. Enclosure – The construction or application of an airtight, impermeable, permanent barrier around asbestos containing material to control the release of asbestos fibers into the air.

38. Equipment Room – A room within the worker decontamination enclosure system with provisions for storage of used clothing and equipment and for controlled transfer of materials and equipment into and out of the regulated area.

39. Facility Component – Means any part of a facility including equipment.

40. Fixed Object – A piece of equipment, furniture, or improvement in the work area, which cannot be removed from the work area.

41. Friable Asbestos – Asbestos containing material which, when dry, can be crumbled, pulverized or reduced to a powder by hand pressure or as defined by current regulations.

42. Glove Bag Technique – A method with limited applications for removing small amounts of asbestos containing material from short piping runs, valves, joints, elbows, and other non-planar surfaces in a work area. The glove bag assembly is a manufactured or fabricated device consisting of a glove bag (typically constructed of 6 mil fire-retardant polyethylene sheeting) two inward projecting long sleeve gloves, an internal tool pouch, and labeled for asbestos waste. The glove bag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all Asbestos fibers released during the process. All workers who are permitted to perform the glove bag technique shall be thoroughly trained, experienced, and skilled in this method.

43. Hazardous Waste – Means friable asbestos generated and prepared for waste disposal. Does not include non-friable material or materials containing one-percent or less of asbestos as determined by PLM and/or the point counting method.

44. HEPA Filter – Means a filtering system capable of trapping and retaining at least 99.97% of all mono-dispersed particles 0.3 microns in diameter or larger. For respirators this shall include NIOSH rated P-100 cartridges only.

45. HEPA Vacuum - Vacuum system furnished with HEPA filtration.

46. High Volume Vacuum – A vacuum system with the capacity to collect material through a four (4) inch diameter hose a minimum distance of 150 feet. This system shall e furnished with HEPA filter at the air exhaust port and water applicators within the hopper.

47. HVAC – Heating, Ventilation, and Air Conditioning System.

48. Lockdown – A material applied to surfaces where asbestos has been completely removed. The manufacturer shall determine the concentration of this material.

49. Member – A component part of a structure complete in itself.

50. Movable Object – A portable piece of equipment or furniture in the work area, which can be removed from the work area.


52. NIOSH – National Institute for Occupational Safety and Health.

53. Outside Air – Air outside of buildings and structures.
54. Owner’s Environmental Consultant – Refers to the firm, company or individual designated by the Owner (Orange County Sanitation District).

55. PCM – Phase Contrast Microscopy as it relates to clearance air, personnel exposure assessment, and ambient air monitoring. This procedure must follow the NIOSH Method 7400.

56. PLM – Polarized Light Microscopy used for bulk sample analysis with dispersion staining for the determination and quantifying of asbestos in bulk samples of building materials.

57. Regulated Area – Designated rooms, spaces or areas of the project in which asbestos abatement actions are to be performed or which may become contaminated as a result of abatement activities. A contained work area is a work area, which has been sealed and furnished with a decontamination enclosure system. A non-contained work area is an isolated or controlled access work area, which has not been sealed or furnished with a decontamination enclosure system.

58. Removal – Means all operations where all ACM and/or presumed ACM is removed or stripped from structures or substrates including demolition.

59. Renovation – Means the modifying of any existing structure, facility, or portion thereof.

60. SCAQMD – South Coast Air Quality Management District.

61. Shower Room – A room between the clean room and the equipment room in the worker decontamination enclosure system furnished with hot and cold running water controllable at the tap, and suitably arranged for complete showering during decontamination.

62. Staging Area – Areas near the waste transfer airlock where containerized asbestos waste is temporarily placed prior to permanent removal from the work area.

63. Surfactant – A chemical wetting agent added to water.

64. TEM – Transmission Electron Microscopy as defined for asbestos clearance air sampling. This procedure must follow the NIOSH Method 7402.

65. TSI – Thermal System Insulation as defined in AHERA.

66. USEPA or EPA – United States Environmental Protection Agency

67. Visible Emissions – Any emissions from a known or suspected asbestos containing material that is visually discernible.

68. Waste Transfer Airlock – A decontamination system provided for transferring containerized waste from inside to outside of the work area.

1.3. NOTIFICATIONS

Notification of asbestos abatement activities shall be provided by Contractor as requires and in accordance with all applicable federal, state, and local agencies prior to the start of abatement activities.

1.4. REGULATORY COMPLIANCE

Regulatory Requirements shall include, but not be limited to:
OSHA: U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

- Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite: Final Rules Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations
- Respiratory Protection: Title 29, Part 1910, Section 134 of the Code of Federal Regulations
- Construction Industry: Title 29, Part 1926.1101 of the Code of Federal Regulations
- Access to Employee Exposure and Medical Records: Title 29, Part 1910, Section 2 of the Code of Federal Regulations
- Hazard Communication: Title 29, Part 1910, Section 1200 of the Code of Federal Regulations
- Specifications for Accident Prevention Signs and Tags: Title 29, Part 1910, Section 145 of the Code of Federal Regulations

DOT: U.S. Department of Transportation (DOT), including, but not limited to:

- Hazardous Substance: Title 29, Part 171 and 172 of the Code of Federal Regulations

EPA: U.S. Environmental Protection Agency (EPA), including but not limited to:

- Asbestos Hazard Emergency Response Act (AHERA), 15 U.S.S. Section 2641
- Asbestos Abatement Projects: Worker Protection Rule, Title 40 Part 763, Subpart G of the Code of Federal Regulations

Cal-OSHA: Title 8, Article 4, California Code of Regulations Construction Industry Safety Orders, Section 1529 "Asbestos" or current revised California regulations.

SCAQMD: South Coast Air Quality Management District, Rule 1403 and Rule 222

2.0 CONTRACTOR SUBMITTALS

2.1. Manufacturer’s Product Data

- HEPA-Filtered Negative Air Equipment
- HEPA-Filtered Vacuum Equipment
- Respirators
- Pressure Differential Monitor
- Surfactants
- Encapsulants
2.2. Plan for Removal and Demolition of Asbestos

The Abatement Contractor shall prepare and submit a detailed job specific plan of the work procedure to be used in the removal and demolition of materials containing asbestos at least two-weeks prior to the start of work. A generalized “boiler-plate” type of plan will not be accepted.

- The plan shall be prepared and signed by the Contractor and Contractor’s Competent Person
- Such plan shall include a sketch showing the location, size, and details of asbestos control areas, location and details of the change room, layout of the change room, details and location of waste container pass out airlock system, and locations of the HEPA-filtered negative air equipment, if applicable.
- The plan shall also include interface of trades involved in the construction, sequencing of the asbestos-related work, disposal plan, type of wetting agent and removal encapsulates to be used, respirators, protective equipment, pressure differential monitoring devices, and a detailed description of the method to be employed in order to control pollution.
- The plan shall include copies of emergency, security, and contingency plans as follows:
  - A plan to provide emergency and fire evacuation for removing workers from the work zone. A copy of this plan shall be filed with the local fire and/or ambulance unit.
  - A plan for maintaining security of the work zone. The security plan shall provide a means for preventing accidental or unauthorized entry.
  - A contingency plan addressing emergency, equipment failures, and barrier failure. This plan shall include telephone numbers of representatives of the Contractor to be contacted in emergencies.
- The plan shall be approved by the Owner and/or Consultant prior to the start of asbestos abatement work.
- Prior to beginning work, the Owner and/or Consultant and Contractor shall meet and discuss in detail the asbestos plan, including work procedures and safety precautions.

2.3 Administrative and Contractor Closeout Submittals

2.3.1. Notification of Equipment Rental

If rental equipment is to be used during asbestos handling and disposal, written notification concerning the intended use of the equipment will be furnished to the rental agency, with a copy to the Owner and/or Consultant.

2.3.2. Landfill Delivery Records

Within three days after delivery of ACM and ACCM to the landfill, submit detailed delivery tickets and hazardous waste manifests, prepared, signed, and dated by an agent of the landfill, certifying the amount of materials delivered to the landfill.

2.3.3. Waste Disposal Site Approval

Submit the recommended waste disposal site to the Owner and/or Consultant for approval prior to the start of the project. Submit written evidence to the Owner and/or Consultant prior to disposal, that the waste disposal site is approved for asbestos disposal by the EPA and other applicable authorities. At job completion, these records shall be inserted into the job binder and transmitted to the Owner and/or Consultant.

2.3.4. Personnel Training Certificates

Prior to the start of ACM and ACCM abatement activities, the Contractor shall submit to the Owner and/or Consultant a declaration certifying that all of the Contractor’s employees have been adequately trained in accordance with CCR Title 8, Section 1529. The Contractor shall also submit proof that all personnel who will be permitted to enter contaminated work areas have been adequately trained in accordance with CCR Title 8, Section 1529 for certification as an Asbestos Worker of Supervisor for Class I and II asbestos abatement projects.
2.3.5. Medical Examination and Certification

Prior to the start of ACM and ACCM abatement activities, the Contractor shall submit proof that all personnel who will be permitted to enter contaminated work areas had had medical examinations in accordance with CCR Title 8, Section 1529 and 29 CFR 1910.134. In addition, the Contractor shall provide a written certification signed by a licensed physician that all workers and supervisors have met or exceeded all of the medical prerequisites listed herein and in CCR Title 8, Section 1529 and 29 CFR 1910.134.

2.3.6. Testing Laboratory

The Contractor shall submit:

- The name, address, and telephone number of each testing laboratory selected for the sampling, analysis, and reporting of airborne concentrations of asbestos fibers along with evidence that each laboratory selected holds the appropriate state license and/or permits;
- Certification that each laboratory is American Industrial Hygiene Association (AIHA) accredited; and
- Persons counting the samples have been judged proficient by current inclusion on the AIHA Asbestos Analysis Registry and have been successfully participated in the laboratory in the Proficiency Analytical Testing Program.

2.3.7. Personal Air Sampling Results

The Contractor shall have performed complete fiber counting for personal air sampling and provide results to the Owner and/or Consultant for review within 48 hour of sample collection. The Contractor will notify the Owner and/or Consultant immediately of any airborne levels of asbestos fibers in excess of the PEL.

2.3.8. Pressure Differential Recordings

If utilized, the Contractor shall review and report the pressure differential recordings within 4 hours from the end of each work day, and immediately report to the Owner and/or Consultant variance in the minimum permissible pressure differential (0.02 inch water column, relative to adjacent, unsealed areas) that could cause adjacent unsealed areas to have asbestos fiber concentrations in excess of 0.01 fibers per cubic centimeter or background, whichever is greater.

2.3.9. Asbestos Disposal Quantity Report

The Contractor shall review and report to the Owner and/or Consultant, within 4 hours from the end of each workday, the amount of asbestos containing materials removed during the previous day.

2.3.10. Contractor Licensing Board Asbestos Certification

Submit a copy of the Contractor’s California State Contractor’s Licensing Board Asbestos Certification in accordance with the California Business and Professional Code, Section 7058.5, to the Owner and/or Consultant.

2.3.11. Contractor Class C Asbestos Removal License

Submit proof that the Contractor possesses a current California Class C Asbestos Removal License to the Owner and/or Consultant.

2.3.12. Hazardous Waste Hauler License and EPA Transporter’s Number

Submit proof that the Contractor’s Hazardous Waste Hauler possesses a current Hazardous Waste Hauler License and EPA Transporter’s Number to the Owner and/or Consultant.
2.3.13. At Job Completion

Contractor shall transmit the job binder to Owner and/or Consultant. Contents shall be as described in this section plus any additional items as designated by the Owner and/or Consultant.

2.4 Quality Assurance

- Where the methods or procedure are specified, they shall constitute the minimum measures and shall in no way relieve the Contractor of sole responsibility for the means, measures, methods, techniques, sequences, or safety measures in connection with the work.
- The removal of asbestos shall be supervised by a licensed supervisor who has experience in this field of construction and can furnish a record of satisfactory performance on at least three projects for work of comparable type and size.
- Subcontractor qualifications shall be the same in form and quantity as required for the Contractor.

3.0 PRODUCTS

Products to be supplied by the Contractor, include, but are not limited to, the following.

- Polyethylene: Polyethylene sheeting in various sizes to minimize the frequency of joints.
- Tape: Glass fiber or other tape capable of sealing joints of adjacent plastic sheets and for attachment of plastic sheeting to finished or unfinished surfaces of dissimilar materials under both dry and wet conditions.
- Surfactant (Wetting Agent): Shall consist of materials that are non-toxic and non-irritating to skin and eye and non-carcinogenic. The wetting agent shall consist of 50% polyoxyethylene or pologlycolester and 50% polyoxyethylene ether, or the equivalent. Wetting agents shall be applied by means of an airless sprayer or equivalent.
- Encapsulant: Shall conform with EPA requirements, and shall contain no toxic or hazardous substances and no solvents.
- Impermeable Containers: Air and water-tight, suitable to receive and retain any asbestos-containing or contaminated materials until disposal time at an approved site and labeled in accordance with applicable Cal-OSHA regulations (CCR Title 8, Section 1529). Two types of impermeable containers shall be used:
  - 6-millimeter (mil) plastic bags
  - Metal fiber drums with tightly fitting lids
- Warning Labels and Signs: In conformance with applicable Cal-OSHA regulation (CCR Title 8, Section 1529).
- Other Materials: Provide all other materials, such as lumber, nails, and hardware that may be required to construct and dismantle the decontamination area and the barriers that isolate the work area.

4.0 EXECUTION

4.1. Material Handling

- Deliver materials in original packages, containers, or bundles bearing the name of the manufacturer and the brand name.
- Store materials subject to damage off the ground, away from wet or damp surfaces, and under cover sufficient to prevent damages or contamination.
- Removal of all ACMs from the premises. Dispose of materials that become contaminated with asbestos in accordance with applicable regulatory standards.
4.2 Equipment

4.2.1 Respirators

The Contractor shall provide workers with personally issued and marked respiratory equipment approved by the National Institute for Occupational Safety and Health (NIOSH) and meeting the specifications of Cal-OSHA. The respiratory equipment shall be suitable for the asbestos exposure level in the work area according to CCR Title 8, Section 1529(i). The Contractor shall provide disposable HEPA (P100) cartridges as required, with sufficient replacement cartridges.

4.2.2 Personal Protective Equipment

The Contractor shall provide workers, the Owner and/or Consultant, and authorized visitors with sets of protective disposable clothing, lead covers, gloves, eye protection, and foot covers of sizes to properly fit individual workers and visitors whenever they are required to enter the work area. The Contractor shall also provide access and use of the Contractor’s change room and provide a minimum of four sets of personal protective equipment (PPE) per day for visitors and sufficient sets as required for workers and the Owner and/or Consultant. The PPE, both new and used, shall remain the property of the Contractor.

4.2.3 Change Rooms

Provide a temporary unit with a separate equipment room, decontamination locker room, and a clean locker room for personnel requires to wear whole body protective clothing.

- Separate each room from the others and from the control area by airlocks
- Provide two separate lockers for each asbestos worker, one in each locker room
- Keep street clothing and street shoes in the clean locker
- Vacuum and remove asbestos contaminated disposable protective clothing while still wearing respirators in the equipment room. Seal clothing in impermeable bags of containers for disposal.
- Do not remove disposable protective clothing in the decontamination locker room
- Remove work clothing in the decontamination locker room
- Tag and bag work clothes for laundering and keep work shoes in the decontamination locker room
- Do not wear work clothing between home and work
- Provide showers with hot and cold running water
- Locate showers between the decontamination locker room and the clean locker room and require employees to shower before changing into street clothes.
- Shower wastewater shall be handled and disposed of as ACM or shall be filtered through a final filter of at least 0.5-micron particle size collection capability before disposal into the sanitary sewer system.
- Handle and dispose of wastewater filters as ACM.
- Clean asbestos-contaminated work clothing in accordance with CCR Title 8, Section 1529 or use disposable clothing.
- Change rooms shall be physically attached to the work area whoever feasible and required.

4.2.4 Eye Protection

Furnish goggles for personnel engaged in asbestos operations when a full-face respirator is not being used.

4.2.5 Caution Signs and Labels

Provide caution signs printed in English and Spanish at approaches to asbestos work areas. Locate signs at such distances that personnel may read the sign and take the necessary precautions before entering the work area. Provide caution labels printed in English and Spanish. Affix labels to friable asbestos materials, scrap, waste, debris,
sealed impermeable bags, asbestos waste drums, and other asbestos containing products. Caution sign labels shall conform to the requirements defined in CCR Title 8, Section 1529.

4.2.5 Fire Extinguisher

A minimum of one 4A/60BC dry chemical extinguisher shall be maintained at each of the following locations:
- At each electrical panel
- At each corner of the work area
- Within 5 feet of the external entry to the shower room from the work area
- Within 5 feet of the external entry to the shower room from the clean room

4.3 Tools and HEPA-Filtered Negative Air System

Where a negative pressure enclosure is utilized, the Contractor shall provide a HEPA-filtered negative air system in accordance with American National Standards Institute (ANSI) Z9.2 and as specified herein.

4.3.1 HEPA-Filtered Negative Air System

Where a negative pressure enclosure is utilized, the Contractor shall provide a HEPA-filtered negative air system in each work area.

- Provide HEPA-filtered negative air equipment designed for a minimum of one work area air change every 15 minutes and additional air change flow rate sufficient to maintain a minimum pressure differential of minus 0.02 inches of water column relative to adjacent, unsealed areas.
- The HEPA-filtered negative air system shall operate continuously, 24 hours per day, until the asbestos control area enclosure is removed. The Contractor is responsible for providing all necessary manpower and/or equipment including but not limited to emergency power, security, and fire watch to ensure 24-hour operations.
- Replace filters as required to maintain the efficiency of the system
- The building heating, ventilation, and air conditioning system shall not be used as the HEPA-filtered negative air system for the work area.

4.3.2 Additional Ventilation Units

The Contractor shall provide additional units to the site in accordance with these Specifications for use inside the containment in the event engineering controls are not effective in controlling the fiber count below the PEL during the removal process. The unit(s) shall be placed inside the containment as additional filtration in manner to move the air away from the worker’s breathing zones and towards the exhaust unit(s).

4.3.3 Backup Ventilation Units

The Contractor shall provide at a minimum one additional HEPA-filtered negative air system unit for up to every ten units on the site as a replacement in case a ventilation unit fails to operate properly. These backup units must be stored on site during the entire project duration.

4.3.4 Filters

Filters on vacuums and exhaust equipment shall be absolute HEPA-filters and Underwriters Laboratories (UL) 586 labeled.
4.3.5 Negative Pressure Differential Monitor

- The Contractor shall provide a manometer-type of magnehelic-type negative pressure differential monitor with minor scale divisions of 0.02 inches of water and accuracy within plus or minus 1%
- The Contractor will calibrate the manometer as recommended by the manufacturer.
- The Contractor shall furnish recorded readings of the pressure differential between locations in the work area and adjacent unsealed areas at the beginning of each workday and every two working hours thereafter.
- The Contractor will collect pressure differential readings at several points inside the work area, including the furthest point from the HEPA-filtered negative air equipment.

4.4 Worker Protection

4.4.1 Abatement Contractor Responsibility

Prior to commencement of work, all workers shall be instructed and shall be knowledgeable in the appropriate procedures of personal protection and asbestos removal.

The Contractor shall be solely responsible for enforcing worker protection requirements.

4.4.2 Reporting Unusual Events

When an event of unusual significant nature occurs at the site, the Contractor shall prepare and submit a special report listing chain of events, persons participating, responses, and similar pertinent information. When such events are known or predictable in advance, advise the Owner and/or Consultant at the earliest possible date. Unusual events would include breaches of containment.

4.4.3 Reporting Accidents

If a significant accident occurs at the site or anywhere else work is in progress, the Contractor shall prepare and submit appropriate reports to the Owner and/or Consultant. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss if substance is sustained.

4.5 General Work Area Requirements

4.5.1 Respirators

- Workers shall always wear a respirator properly fitted on the face while in the work area
- Workers wearing tight-fitting face pieces shall be clean-shaven to the extent that the hair does not interfere with the sealing surface of the respirator. This must be documented by a standard respirator fit test.
- The Contractor shall instruct and train workers in proper respirator use.

4.5.2 Clothing

Workers shall wear disposable, full-body coveralls and disposable head covers and footwear suitable for asbestos work in the work area.

4.6 Decontamination Unit Requirements

At all work areas, the Contractor shall set up a change room, shower, and equipment room outside the work area. Where feasible and required, the change room, shower and equipment room will be attached to the work area. All workers without exception shall:
• Remove and properly store street clothes in the change room and put on new disposable coveralls, head covers, footwear, and cleaned respirator before entering the work area
• Remove the disposable coveralls, head covers, and footwear in the equipment room and dispose of them in an appropriate asbestos waste container. Still wearing their respirator, workers shall proceed to the showers and remove their respirators while showering with soap and tempered water. Wetted HEPA respirator cartridges shall be disposed of in appropriate asbestos containers.
• This procedure shall be followed each time a worker leaves the work area
• Workers shall not eat, drink, smoke or chew gum or tobacco in the work area
• The Contractor shall also provide disposable coveralls, head coverings, and footwear to the Owner and/or Consultant.
• All persons entering the work area shall wear an approved respirator and disposable coveralls, head coverings, and footwear.

4.7 Personal Air Monitoring

Daily personal air monitoring shall be constructed by the Contractor in order to determine the airborne concentrations of asbestos to which workers may be exposed. Copies of the analytical results for the daily personal monitoring shall be submitted to the Owner and/or Consultant within 48-hours of sample collection.

4.8 Sign-In / Sign-Out Log and Daily Activity Report

• The Contractor shall maintain a sign-in / sign-out log in the immediate vicinity of the change room or any decontamination area. This log shall be maintained from the time the first activity is performed involving the disturbance of ACM and ACCM until the time final air test results. All persons entering the work area, including Contractor’s workers, Owner and/or Consultant, and Government officials, shall be required to sign in and out each time upon entering and leaving the work area. All persons shall indicate name time, company or agency represented, and reason for entering the work area.
• The Contractor shall maintain a daily activity report describing work performed, materials and methods used, inspection(s) made, test(s) taken, and any unusual conditions or problems.
• Except for governmental inspectors having jurisdiction, no visitors shall be allowed in any work area, except as authorized by the Owner and/or Consultant.

4.9 Housekeeping

The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by their employees. Bags of asbestos material and other waste materials shall be removed immediately at the completion of work. Maintain surfaces of the work area free of debris and keep waste from being distributed outside of the immediate work area.

4.9.1 Removal of Asbestos Waste Containers

The Contractor shall provide a waste container removal system. Asbestos waste containers shall not be removed through the change rooms. The waste container removal system shall consist of a wash-down station inside the work area, a washroom, a waste container holding area. Provide airlocks between each area and an airlock with access to outside the work area from the holding areas. Provide caution signs as specified herein for asbestos work areas. The waste container removal system shall be a temporary unit constructed to prevent the escape of asbestos fibers from the area. The system shall be physically attached to the work area. Personnel entering the waste container removal system shall wear PPE. The system shall not be used to enter or exit the work area. Access to outside the waste container removal system shall be sealed except during the removal of asbestos waste containers. Perform cleanup of the waste container removal system as specified herein for enclosed work areas. Do not remove the waste container removal system enclosure and caution signs prior to receipt of the Consultant’s clearance sample results. All asbestos waste containers shall be removed from the work area daily.
4.9.2   Procedure for Disposal of Asbestos

Do not remove any ACM or ACCMs from the site without approval from the Owner and/or Consultant. Procedure for hauling and disposal of asbestos waste shall comply with 40 CFR 61, Subpart M and CCR Title 8.

4.10 Work Area Preparation

4.10.1 Warning Signs

The Contractor will provide Warning Signs meeting regulatory requirements at each visual and physical barrier.

4.10.2 Critical Barriers

Where appropriate, the Contractor shall seal all openings with two layers of 6-mil minimum polyethylene as a containment barrier to prevent leakage of air into the outside environment or other portions of the building. Individually seal ventilation openings in walls (supply and exhaust), wall-mounted fixtures, doorways, windows, convectors, and other wall and floor openings into the work area with adhesive tape alone or with two layers of polyethylene sheeting at least 6-mil (true), taped securely in place with adhesive tape.

4.10.3 Pre-Cleaning

- The Contractor shall pre-clean movable objects to be salvaged for the Owner within the proposed work areas using HEPA vacuum equipment or wet cleaning methods as appropriate. The Contractor shall move such items to storage or other areas as directed by the Owner.
- The Contractor shall pre-clean immovable objects such as mechanical and electrical equipment and fixtures within the proposed work area using HEPA vacuuming equipment or wet cleaning methods as appropriate.
- Prior to placing plastic sheeting, clean the work area(s) and immediately adjacent areas physically connected to abatement areas using HEPA vacuum equipment or wet-cleaning methods as appropriate. Do not use methods that raise dust such as broom sweeping or vacuuming with non-HEPA equipped vacuum cleaners.

4.10.4 Containment

Where necessary, the Contractor will contain work areas with two layers of 4-mil plastic sheeting on walls and ceilings, and two layers of 6-mil plastic sheeting on floors, or as otherwise directed in writing by the Owner and/or Consultant.

4.10.5 Decontamination Unit

The Contractor shall construct worker and waste container / equipment decontamination units in compliance with EPA guidelines. Provide sufficient numbers of lockers in change and clean rooms or worker’s clothing with one locker reserved for Owner and or Consultant personnel.

4.10.6 Emergency Exits

The Contractor shall establish emergency exits and procedure for each work area, satisfactory to fire officials and provide fire extinguishers as required.
4.10.7 Work Area Maintenance

The Contractor shall ensure that barriers and plastic enclosures remain effectively sealed and taped. Inadvertent tears in plastic shall be repaired with fiber tape and the tear covered by plastic applied with spray-adhesive, overlapping the tear by 6 inches on all sides.

If, during performance of abatement work, suspect ACM is observed outside of abatement enclosures, or if damage occurs to the enclosure barrier(s), work shall stop immediately upon discovery, appropriate repairs will be made (by the Contractor), and all such debris will be collected using appropriate vacuums and wet methods.

5.0 ASPBESTOS REMOVAL

5.1 General Work Area Requirements

In a work area, the Contractor shall:

- Remove and dispose of all ACMs, ACCMs and PACMs in accordance with the methods and procedure outlined in CCR Title 8, Section 1529.
- All asbestos removal shall be supervised by a competent person.
- Where appropriate, enclose work areas under differential air pressure for the duration of the asbestos removal and subsequent cleaning phases and until all areas have been air-tested and found to be in compliance with the specific air quality clearance level detailed in Section 6.2 of these specifications.
- Perform appropriate cleaning using HEPA vacuum or wet cleaning methods of all areas physically connected to areas receiving asbestos removal.
- Dispose of all contaminated or otherwise removed materials and wastes in sealed and labeled containers in an approved sanitary landfill.
- Never use high-pressure water streams to remove any type of ACM or ACCM.
- After removal, all surfaces shall be wet-cleaned and HEPA vacuumed to remove residual accumulated material. After cleaning, surfaces shall appear free of visible material.
- Prior to the removal of the plastic sheeting from the wall, apply approved sealant on all concrete or wood substrate, structural steel, and piping surfaces from which the material was removed and to plastic sheeting prior to its removal.
- Following related repair work remove any remaining floor and wall plastic, including seals on openings, and dismantle worker waste container/equipment decontamination areas and leave all areas clean.
- Eating, smoking, or applying cosmetics shall not be permitted in the work area.

5.2 Removal of OSHA Class I Materials

Removal of Class I OSHA materials is anticipated for this project. Contractor shall remove the Class I OSHA materials in accordance with appropriate federal, state, and local regulations. The Contractor is responsible for processing any permits with the SCAQMD.

Should the Contractor choose to utilize mechanical methods of other means that would or could potentially render non-friable material friable, the Contractor shall adhere to the work practices for Class I OSHA materials in accordance with appropriate federal, state, and local regulations. The Abatement Contractor is responsible for processing any permits with the SCAQMD, for the removal of materials via mechanical methods or other means that could potentially render a non-friable material friable. Exterior stucco (Texture Coat) will be removed in containment.
5.3 Removal of OSHA Class II Materials

5.3.1 Vinyl Flooring Tile and/or Flooring Mastic

The Contractor is responsible for the removal / abatement of any of the identified flooring materials, per the construction bid documents. The Contractor shall demonstrate to the Consultant that the flooring materials do not extend underneath any of the fixtured, cabinets, or other permanent items, in each room, where removal / abatement of asbestos containing flooring materials is scheduled to occur.

The Contractor shall adhere to the following additional work practices regarding the removal of vinyl flooring tile and/or mastic:

- Vinyl floor and/or mastic shall be removed with hand tools and, to the extent feasible, substantially intact.
- Vinyl flooring and/or mastic removal operations involving the use of mechanized work methods, including motorized floor buffers and mechanical chipping, shall be conducted utilizing Class I work methods.
- Low-odor, solvent-based mastic removers may be used to remove ACM mastic, provided the waste generated is managed in accordance with applicable state and federal regulations. Use of solvent-based mastic removers will be followed by suitable rinse (as per manufacturer’s recommendations) to remove any residual mastic remover.

5.3.2 Roofing Materials

The Contractor shall adhere to the following additional work practices regarding the removal of roofing materials:

- Roofing materials shall be removed with hand tools, and to the extent feasible, substantially intact.
- Roofing materials shall not be dropped or thrown to the ground. The material shall be carried or passed down by hand, or the materials will be lowered to the ground via covered, dust-tight chute, crane, or hoist.
- The Contractor will spray large areas of roofing material thoroughly with amended water, using spray equipment recommended by the surfactant manufacturer and capable of providing a mist application to reduce the chance of release of fibers. Spray the roofing material repeatedly during the abatement work process to maintain wet conditions, but do not use excessive amounts of water that results in ponding or leakage into the building.
- While materials that have been removed remain on the roof, the material shall either be kept wet, placed in an impermeable waste container, or wrapped in plastic sheeting.

5.0 CLOSURE

6.1 Waste Labeling

- ACM should be placed in labeled, leak-tight containers and/or wrapping. The labels for friable ACMs shall contain all information as specified in Occupational Safety and Health Standards of the Department of Labor, under 1926.1101(k)(2)(iii) and Title 8, Section 5229, any local regulations.
- For temporary storage on site, ACMs shall be stored in a secured area. The area shall be demarcated with Asbestos Warning Signs.

6.2 Clearance

- Work areas and all other decontaminated areas and cleaned areas shall be considered clean when:
  - The work area passes a visual inspection by the Consultant and
  - Air testing performed by the Consultant, complies with the EPA recommended re-occupancy level of 70 structures per square millimeter, when analyzed by Transmission Electron Microscopy.
- TEM analysis will be conducted in accordance with EPA AHERA Regulations
• Areas that do not comply with the standard of cleaning for final clearance shall continue to be cleaned by and at the Consultant’s expense until the specified standard is achieved evidenced by results of air sampling tests by the Consultant. The costs of all follow-up tests necessitated by the failure of the air tests to meet the cleaning criteria shall be borne by the Contractor. Follow-up testing shall occur within a time allotted for gross removal or all costs to the Owner, attributed to delayed occupancy or usage, shall be borne by the Contractor.

• When the clearance is achieved, as indicated above, and an inspection determined that the area has been visually decontaminated, the decontamination enclosure system shall be removed, the area thoroughly wet cleaned, and materials from the equipment room and shower disposed of as contaminated waste. The remaining barriers between contaminated and clean areas and all seals on openings into the work area and fixture shall be removed and disposed of as contaminated waste.

6.3 Tear Down

All plastic sheeting, tape, cleaning materials, clothing, and all other disposable material used in the asbestos removal operation or item used in the work area shall be packed into sealable 6-mil plastic bags. These bags must be marked with labels as required by Cal-OSHA in CCR Title 8, Section 1529.

END OF SECTION