IBI Group

March 12, 2010

Del Mar High School CEC Bus Depot Conversion
San Gabriel Unified School District

ADDENDUM NO. 1

The following revisions, clarifications, deletions and/or additions shall be made to the Construction Drawings and Specifications for **Del Mar High School CEC Bus Depot Conversion, for the San Gabriel Unified School District; DSA Application No. 03-112620; Bid No. 02-09/10.** All other requirements of the Contract Documents shall remain the same. Acknowledge Receipt of this Addendum by inserting its number and date in the Bid Proposal.

This Addendum consists of **THREE (3)** parts as follows:

Part 1	**BID PACKAGES**
Part 2	**DRAWINGS**
Part 3	**SPECIFICATIONS**

Part 1 BID PACKAGES

Item No. AD-1.1.1
Please note that the bid submittal and opening date has changed from Wednesday, March 17th at 2:00pm to Tuesday, March 23rd at 2:00pm.

Part 2 DRAWINGS

Item No. AD-1.2.1
Sheet C0.3: The Fire Department Connection is to remain as existing, the only additional modification will be the connection of the new 4" fire sprinkler line to the existing 6" fire sprinkler line which will follow with a sketch.

Item No. AD-1.2.2
Sheet L1.0:

Misc. additional information as noted:

1) The irrigation for the planting areas requires design/build
2) The point of connection is at the north of existing building door on del mar avenue.
3) There is an existing controller with no stations available; provide new controller, wiring and conduit.
4) The triangular spacing for the 1 gallon Liriope Muscari is 18"

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5) There will be no root barrier required at the tree locations.
6) Steel edging will not be required between DG and adjacent areas.
7)

Item No. AD-1.2.3
Sheet A1.1 – A1.4: The concrete type 1 thru 3 refer to different integral color concrete.

Item No. AD-1.2.4
Sheet A1.4: See attached drawing AD1-ARC-SK1
Changes include but are not limited to:
1) Deletion of site lights as described by electrical
2) Widening the dimension between the flag poles
3) A concrete expansion joint detail was called out as a control joint
4) A tree in the planter was removed to coordinate with drawings L1.0 and A1.1

Item No. AD-1.2.5
Sheet A2.1: Roof Access Ladder detail should be 11/X5.1, not 15/X8.1

Item No. AD-1.2.6
Sheet A3.1: At gridline 8 and A, (detail 5) provide a new downspout

Item No. AD-1.2.7
Sheet A5.1: Detail 1, see updated wall section drawing AD1-ARC-SK2 showing structural brace penetration and coordination with horizontal 6x10 window header.

Item No. AD-1.2.8
Sheet A5.2: Detail 3, see updated wall section drawing AD1-ARC-SK3 showing additional flashing information.

Item No. AD-1.2.9
Sheet A5.3: Detail 1, see updated wall section drawing AD1-ARC-SK6 showing structural coordination with detail 16/S2.6, the diagonal bracing spacing to 2'-8" and a detail callout for the end condition of the metal siding.

Item No. AD-1.2.10
Sheet A8.1:
1) Detail 15, see updated finish schedule and material legend AD1-ARC-SK4 that calls out the exposed concrete pilasters to be painted.
2) Exposed interior concrete per F1 on the finish schedule treated per "concrete finishes 03355" 2.01A non-slip grit.

Item No. AD-1.2.11
Sheet X1.1: Please note that the Accessible Parking Sign detail should read detail # 7 and not 8.

Item No. AD-1.2.12
Sheet X3.2:

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1) Detail 2 should read "2x wood stud framing" in lieu of "4" metal stud framing."
1) Detail 13, replace with drawing AD1-ARC-SK5
2) Detail 14, replace with drawing AD1-ARC-SK7

Item No. AD-1.2.13
Sheet X5.1: In detail 7, there are two "1/2" plywood per structural" callouts, the skylight finish should be "1/2" Gypsum board".

Item No. AD-1.2.14
Sheet X5.2: Detail 2, replace with drawing AD1-ARC-SK8

Item No. AD-1.2.15
Sheet S1.2:

1) The hatched area between grids E&G and 1&4 was inadvertently omitted, please see AD1-STR-SK1
2) There are existing roof drains that are being replaced, they are not new roof openings, please see AD1-STR-SK2, SK4 & SK5
3) Between grids 6 and 7 there is further information for that opening, please see AD1-STR-SK3

Item No. AD-1.2.16
Sheet S2.2:

1) The skylights needed additional framing information to coordinate with the architectural drawings, see AD1-STR-SK6, SK7 & SK8

Item No. AD-1.2.17
Sheet S2.3:

1) Detail 15 had a wrong callout for a beam, please see attached AD1-STR-SK9
2) Detail 16 had a wrong callout for a beam, please see attached AD1-STR-SK10

Item No. AD-1.2.18
Sheet S2.4:

1) Detail 13 now provides a reference to the truss bracing, see attached AD1-STR-SK11.
2) Detail 15 has some additional clarifying information, see attached AD1-STR-SK12.

Item No. AD-1.2.19
Sheet S2.6:

1) New Detail 16/S2.6 clarifies framing information above the entrance between Grid 6 & 7.

Item No. AD-1.2.20
Sheet E0.4: Lighting Fixture Schedule and Details

1) Fixture Schedule: Delete Fixture Type 9 in its entirety

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Item No. AD-1.2.21

Sheet E0.6: Details

1) Detail titled "Existing Electrical Room Detail" shall be detail "7" in lieu of detail "6".

Item No. AD-1.2.22

Sheet E1.1: Site Electrical Plan

1) Delete six (6) walkway light fixtures, Fixture Type 9, and associated conduit and wiring
3) Delete tamper switch and associated conduit and cabling from PIV to EXP1. The PIV has been deleted.

Item No. AD-1.2.23

Sheet E2.1: Lighting Plan

1) All homeruns from the Fitness Center shall be routed concealed down in the wall at grid line G and run underground over to wall at Classroom 106 along grid line E. The conduits shall route concealed in the wall at grid line E and overhead into the electrical room and connected as indicated. Provide trenching, backfill, etc. as required to comply with this provision. All homerun conductors from the Fitness Center shall be #10 in lieu of #12 indicated.

Item No. AD-1.2.24

Sheet E2.2: Power Plan

1. All homeruns from the Fitness Center shall be routed concealed down in the wall at grid line G and run underground over to wall at Classroom 106 along grid line E. The conduits shall route concealed in the wall at grid line E and overhead into the electrical room and connected as indicated. Provide trenching, backfill, etc. as required to comply with this provision. All homerun conductors from the Fitness Center shall be #10 in lieu of #12 indicated.

Item No. AD-1.2.25

Sheet E2.3: Signal Plan

1. Delete Plan Note #3. All homeruns from the Fitness Center shall be routed concealed down in the wall at grid line G and run underground over to wall at Classroom 106 along grid line E. The conduits shall route concealed in the wall at grid line E and overhead into the electrical room and connected as indicated. Provide trenching, backfill, etc. as required to comply with this provision.
2. Provide one (1) television outlet on south wall of classroom 106 at 18 in. AFF next to the power outlet between grid lines B and C. Provide 1"c. with cabling as specified from the outlet to Signal terminal cabinet STC. Typical for Classroom 101.
3. Provide one (1) television outlet on north wall of Fitness Center 100 at 18 in. AFF next to the power outlet at grid lines I. Provide 1"c. with cabling as specified from the outlet to Signal terminal cabinet STC.

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4. Add Plan Note #5 at Signal terminal cabinet STC .
5. Provide telephone outlet, conduit and cabling above counter in Fitness Center 100 next to data outlets. Provide outlet, conduit and cabling to match existing campus phone system. Provide ¾"c. with cabling from outlet to Signal terminal cabinet STC. Typical for telephone outlets in Classrooms 101 and 106.

Item No. AD-1.2.26
Sheet E2.4: Fire Alarm Plan

1. All homeruns from the Fitness Center shall be routed concealed down in the wall at grid line G and run underground over to wall at Classroom 106 along grid line E. The conduits shall route concealed in the wall at grid line E and overhead into the electrical room and connected as indicated. Provide trenching, backfill, etc. as required to comply with this provision.

Part 3 SPECIFICATIONS

Item No. AD-1.3.1
Table of Contents:

Add: "**Section 02870 Site Furnishings**"
Add: "**Section 09640 Resilient Wood Flooring Assemblies**"
Add: "**Section 09651 Resilient Flooring**"
Add: "**Section 09655 Rubber Flooring**"
Add: "**Section 09665 Rubber Base**"
Add: "**Section 09720 Tackable Wall Surfacing**"
Add: "**Section 10110 Markerboards**"
Add: "**Section 10750 Flagpoles**"
Add: "**Section 11680 Playfield Equipment**"
Delete: "**Section 15485 Electric Water Heaters**"

Item No. AD-1.3.2
Section 16722-Fire Alarm: Paragraph 1.04A., the equipment shall be manufactured by "Faraday" in lieu of "Notifier" indicated.

Item No. AD-1.3.3
Section 16750 – Computer Network Cabling System: Revise paragraph 1.01 B.1 to read "...from the MDF in the existing signal room to the new IDF in Building C."

Item No. AD-1.3.4
Section 16740 – Clock and Paging System:

1) Delete 16740 in its entirety. Change clock specifications to battery operated, self correcting clocks, American Time and Signal, E93BAND201BP-WEB or equal.
2) Provide conduit and backboxes as indicated on drawings for paging speakers.

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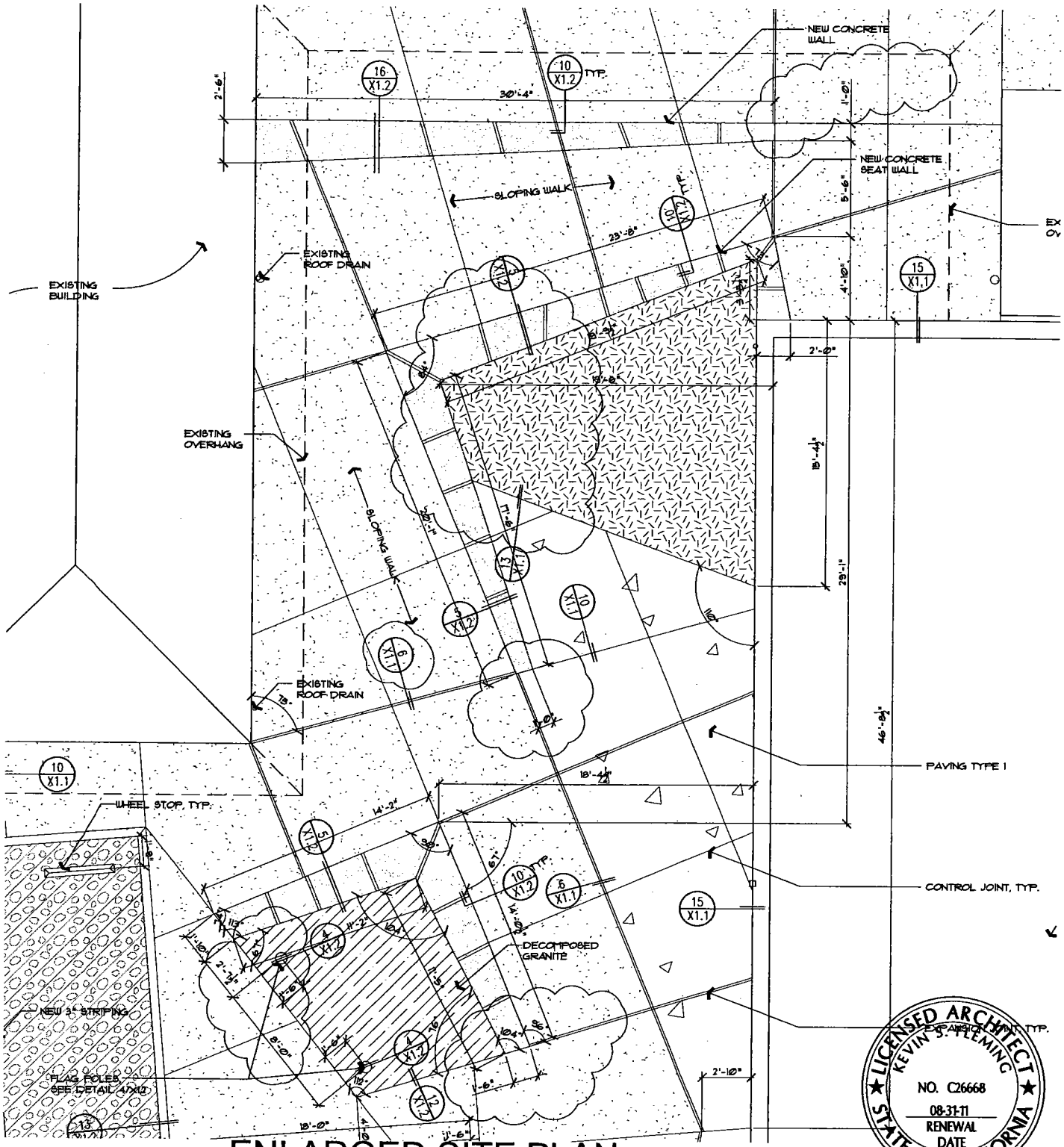

ENLARGED SITE PLAN

SCALE: 1/8" = 1'-0"

LICENSED ARCHITECT
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08-31-11
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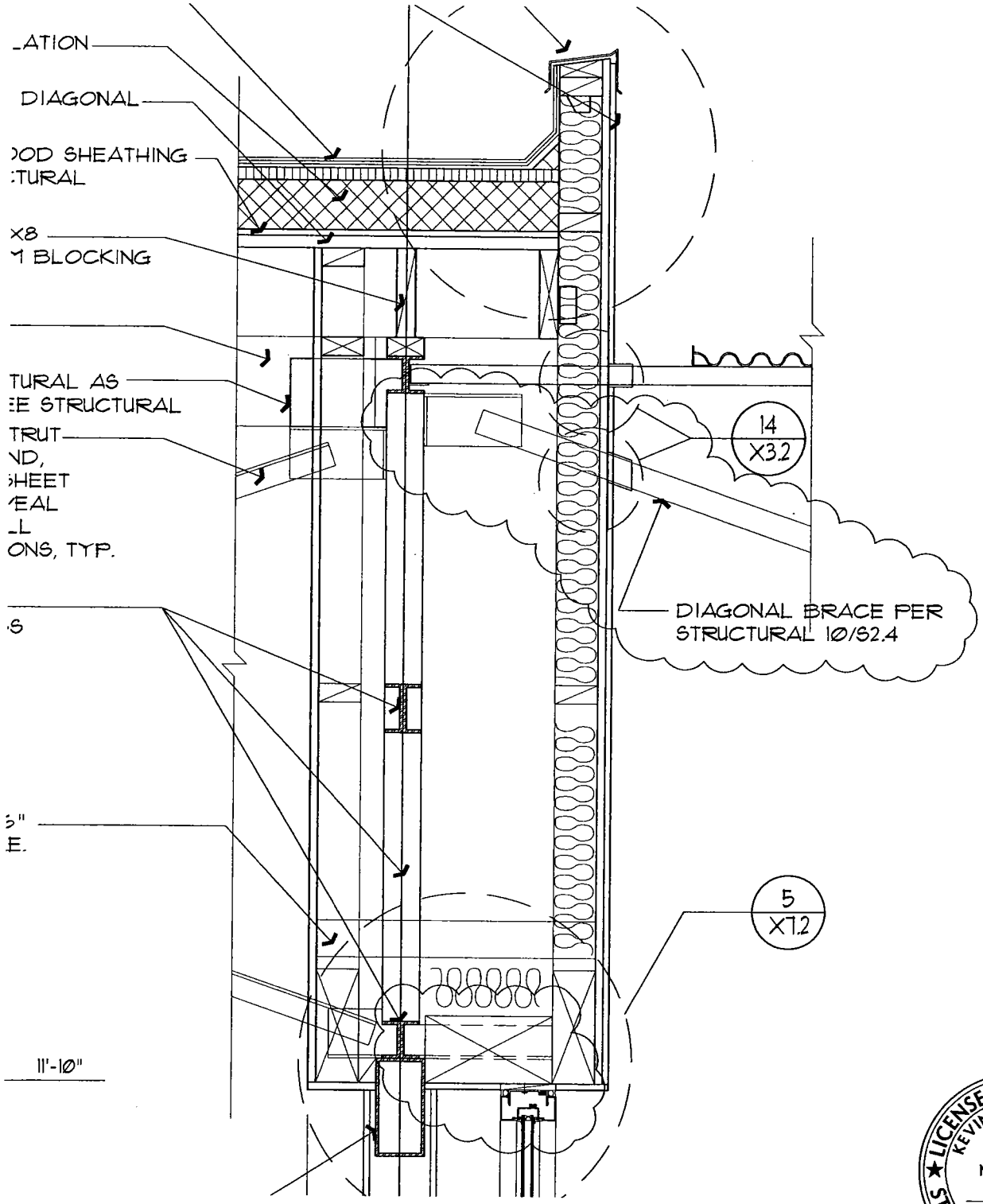
DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776

SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No:	03-112620	Job No:	20318	Date:	03-12-10
Drawn By:	LLAT	Revisions:	A1.4	Sheet:	AD1-ARC-SK1



WALL SECTION

SCALE: 1" = 1'-0".

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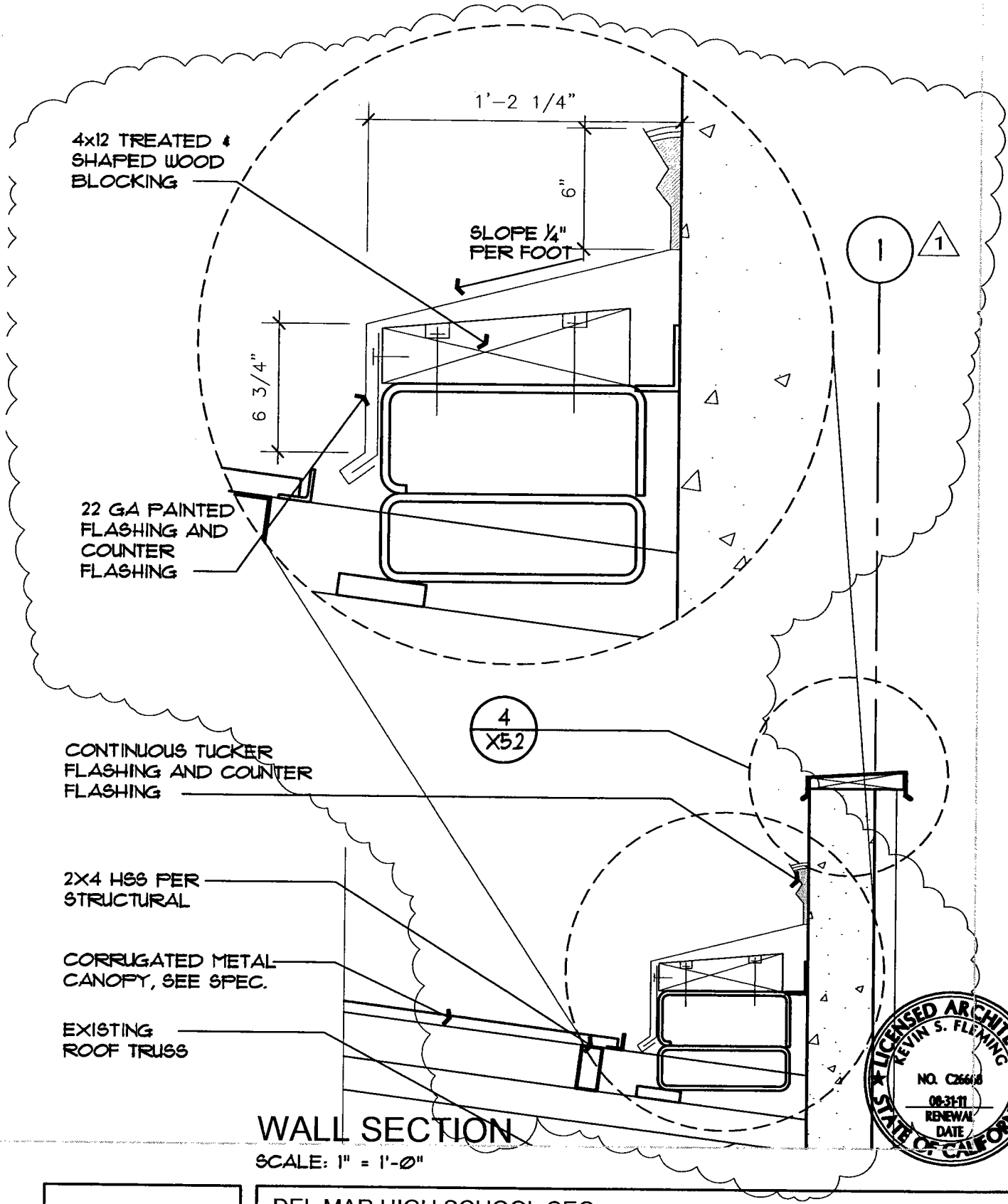
Drawn By:	LLAT	Revisions:	1/A5.1	Sheet:	AD1-ARC-SK2



WALL SECTION

SCALE: 1" = 1'-0"

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Drawn By:	PR	Revisions:	3/A5.2	Sheet:	AD1-ARC-SK3

FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR FINISH	BASE FINISH	WALLS FINISH	WALL PAINT FINISH
100	FITNESS ROOM	F4/F5	B2/B3	W1/W3 1	P3
101	CLASSROOM	F6	B2	W1/W3 1	P3
102	WOMEN'S RESTROOM	F2	B1	W4	P1
103	MEN'S RESTROOM	F2	B1	W4	P1
104	STORAGE	F1	B4	W2/W1/W3 1	P3
105	ELECTRICAL	F1	B4	W2/W1 1	P3
106	CLASSROOM	F6	B2	W1/W3	P3

MATERIAL LEGEND

WALLS (PER CBC CH. 8 PROVISIONS)

W1 GYPSUM BOARD
W2 EXPOSED CONCRETE PANEL
W3 EXPOSED CONCRETE PILASTER
W4 CERAMIC TILE OVER SETTING BED

1

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FINISH SCHEDULE

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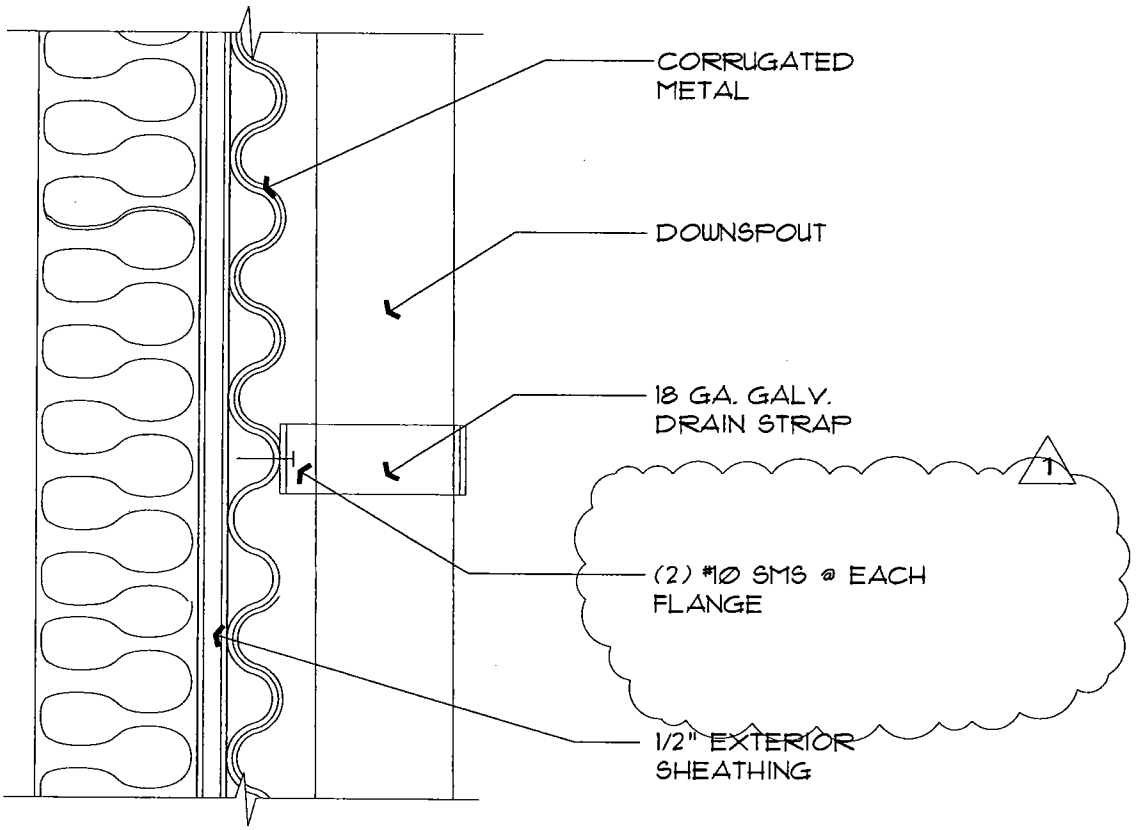

DOWNSPOUT STRAPPING DETAIL

13
X3.2

SCALE: 3"=1'-0"

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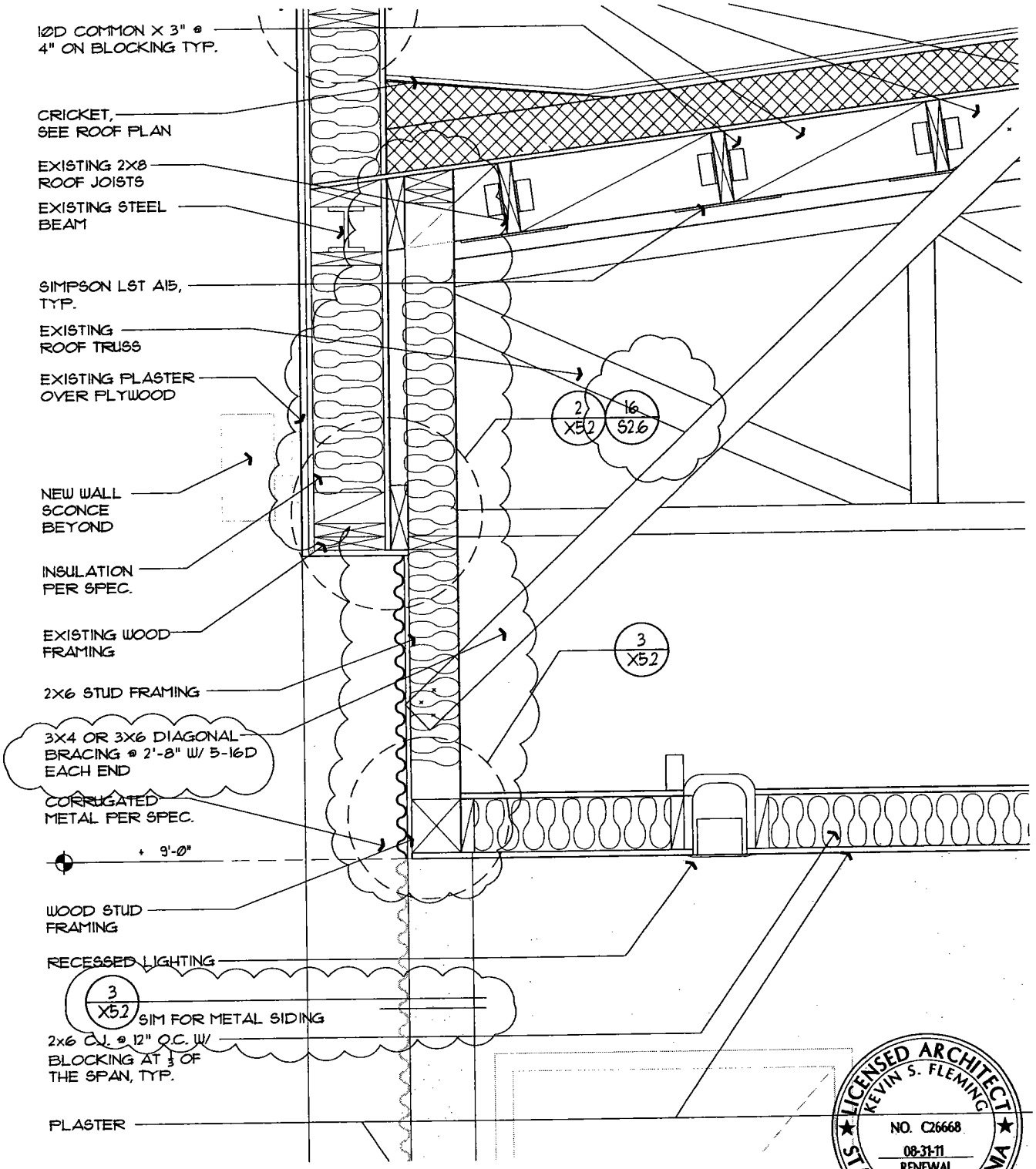

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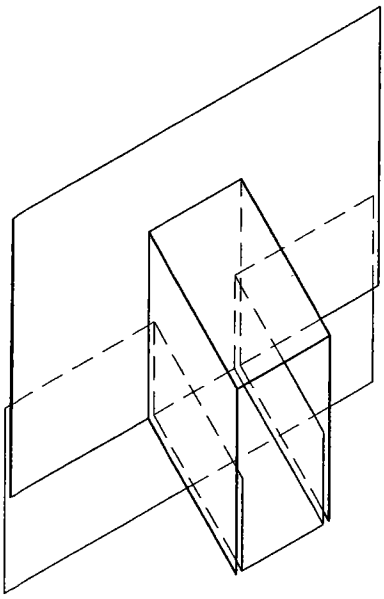
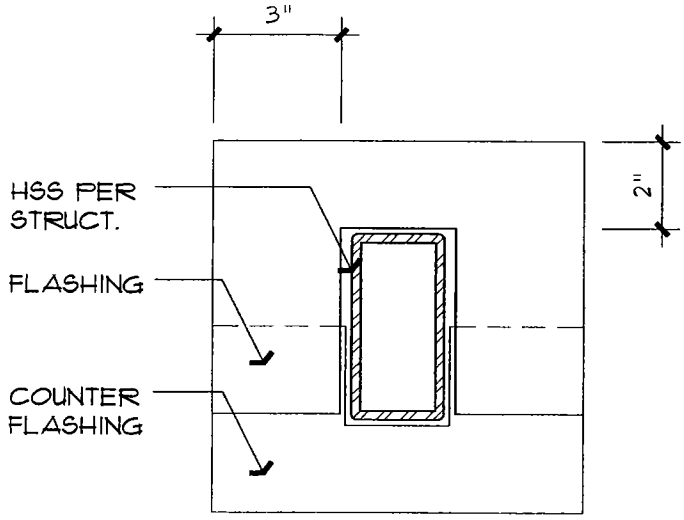
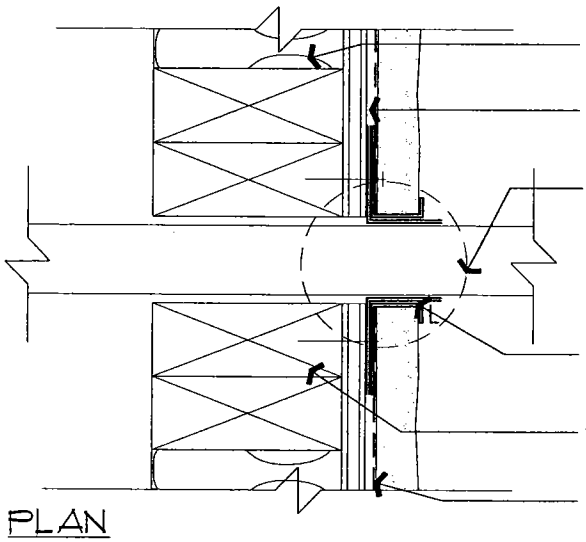


AXO



ELEVATION



PLAN

INSULATION PER SPECS.

WATER-PROOFING

STRUCTURAL HSS

SEALANT W/ BACKEROD

2X WOOD STUD FRAMING

EXTERIOR PLASTER ASSEMBLY o/ ½" EXTERIOR SHEATHING

TYPICAL EXTERIOR WALL PENETRATION

14
X3.2

SCALE: 3" = 1'-0"

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WALL SECTION

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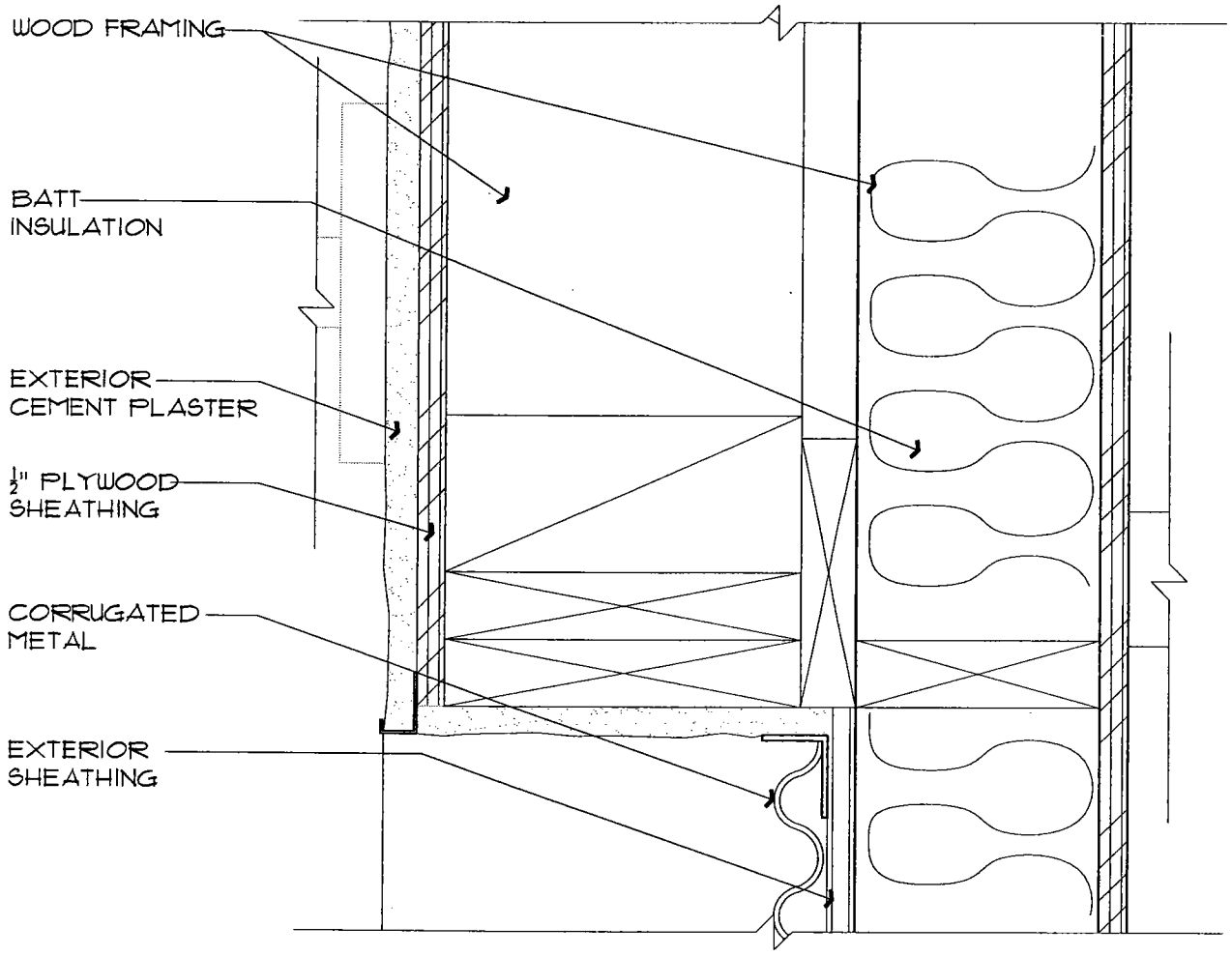

WALL AT OFFSET

SCALE: 3" = 1'-0"

2
X5.2

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WALL AT OFFSET
SCALE 3" = 1'-0"

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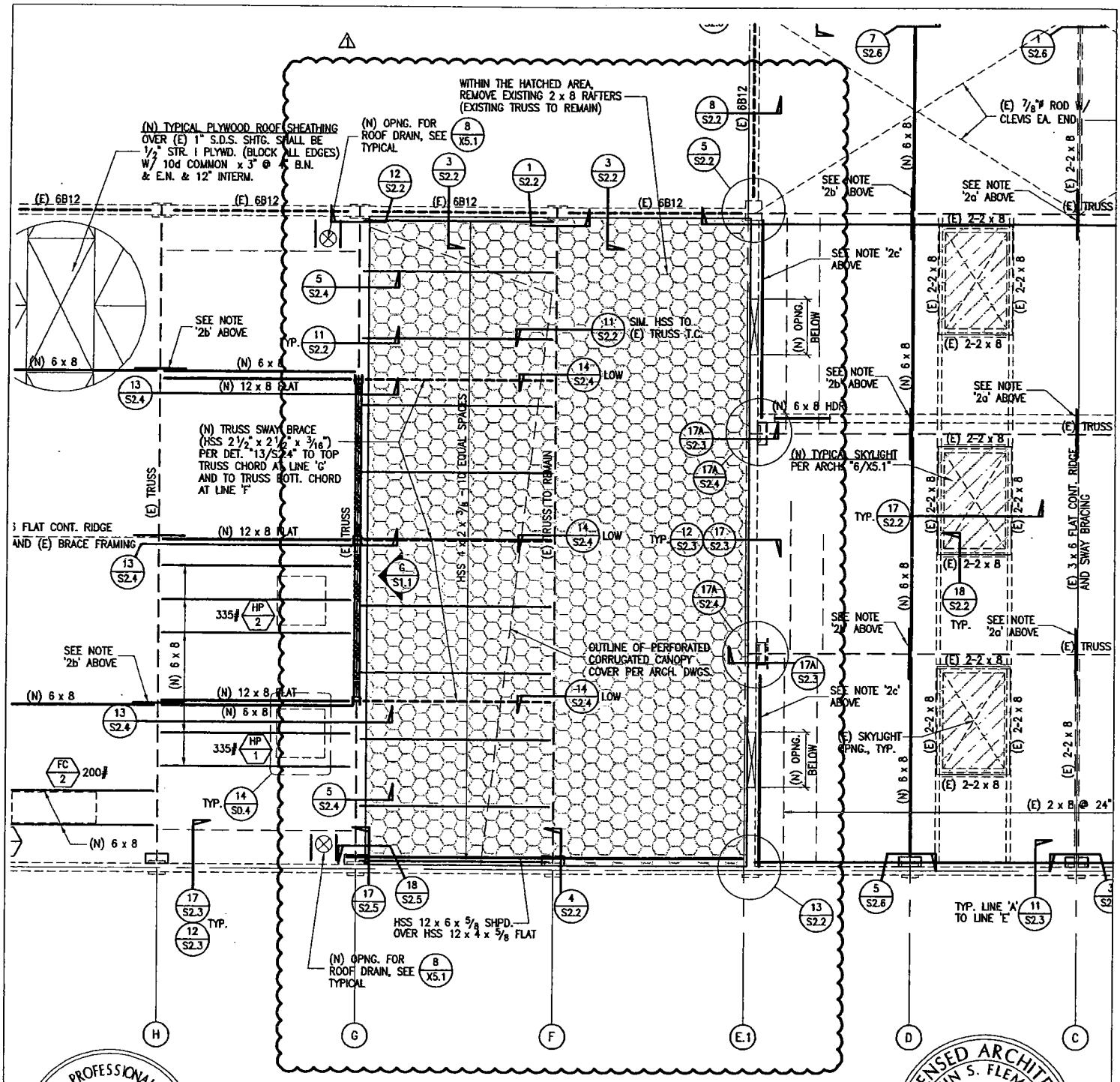

PARTIAL REVISED FRAMING PLAN

REGISTERED PROFESSIONAL ENGINEER
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Exp. 9-30-11
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LICENSED ARCHITECT
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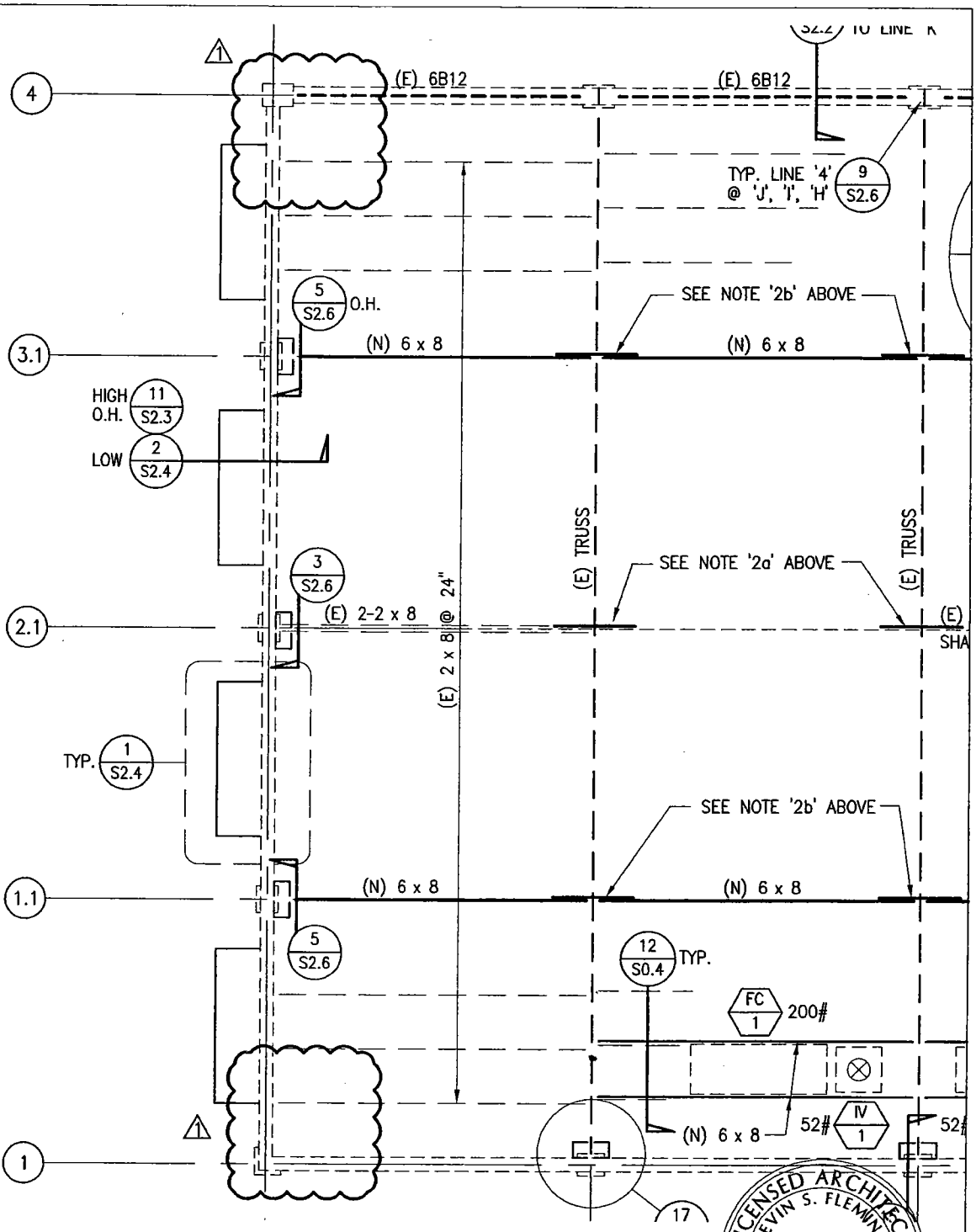

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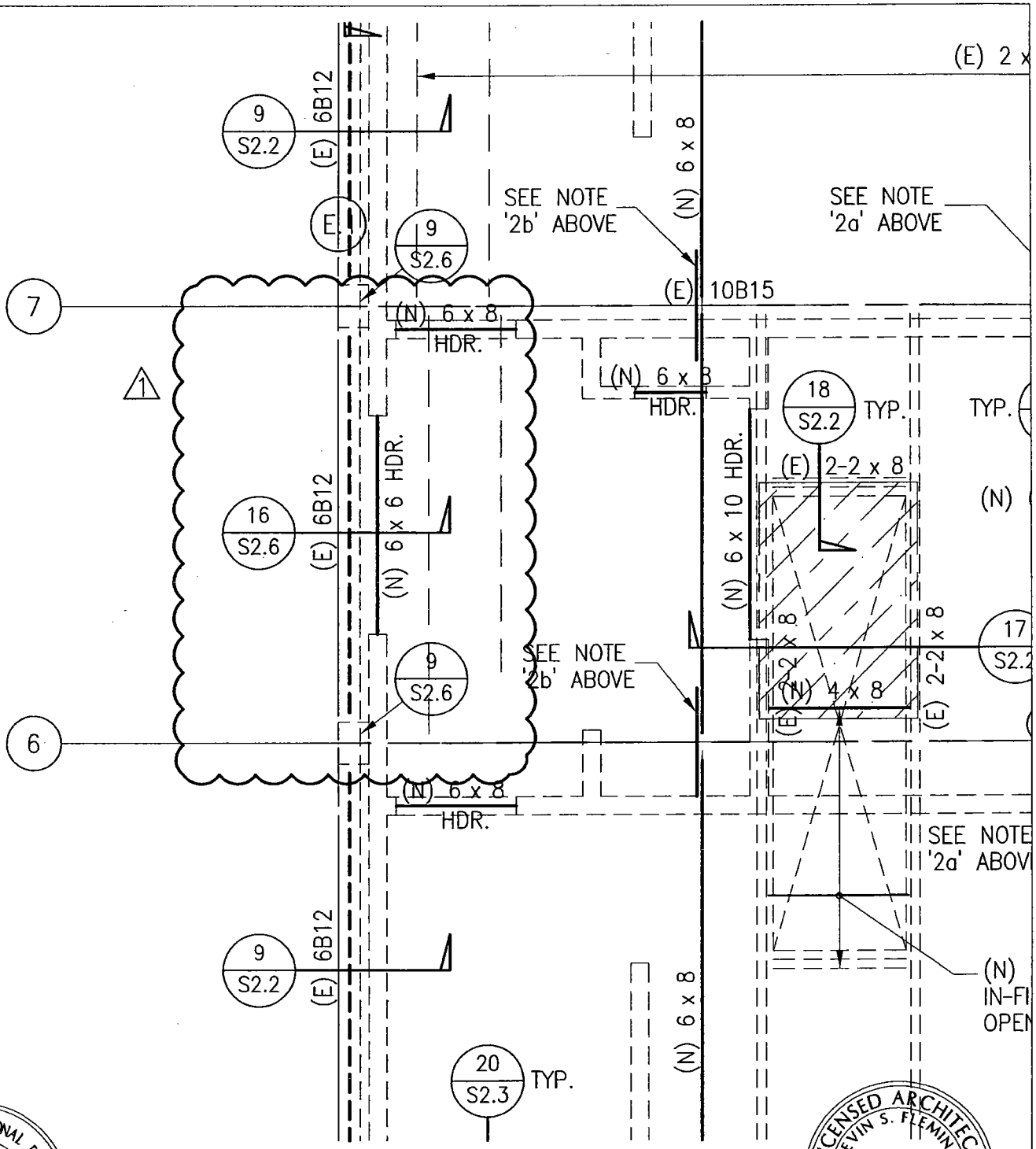

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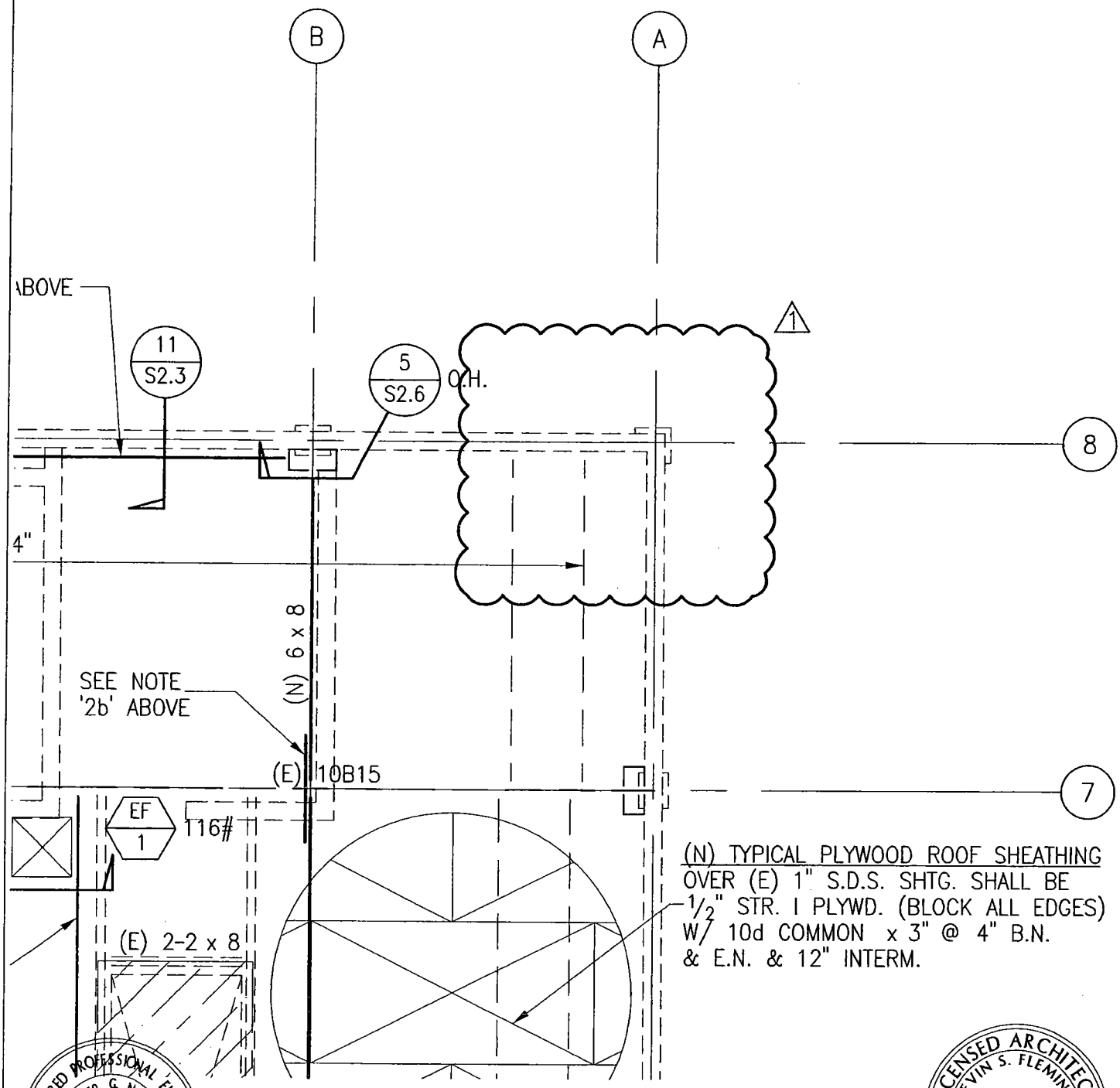

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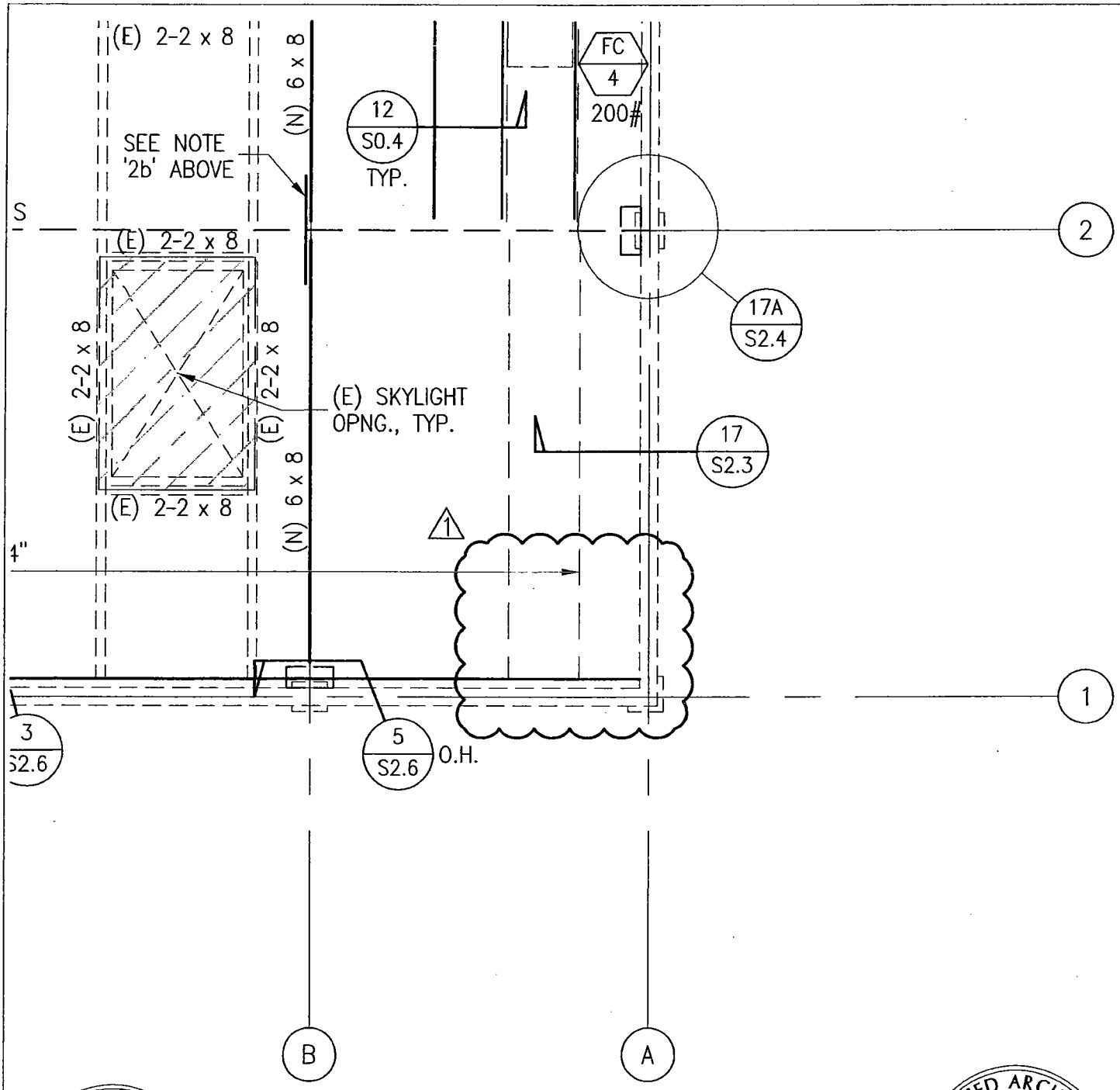
DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776
SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S1.2	Sheet: AD1-STR-SK4



NORTH

PARTIAL REVISED FRAMING PLAN

REGISTERED PROFESSIONAL ENGINEER
Masahiro G Nakabara
NO. 2165
Exp. 9-30-11
STRUCTURAL
STATE OF CALIFORNIA

MARTIN CHOW NAKABARA

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CONSULTING STRUCTURAL ENGINEERS
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(714) 979-3003 FAX (714) 979-3259
MCN #08006

LICENSED ARCHITECT
KEVIN S. FLEMING
NO. C26668
08-31-11
RENEWAL DATE
STATE OF CALIFORNIA

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DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

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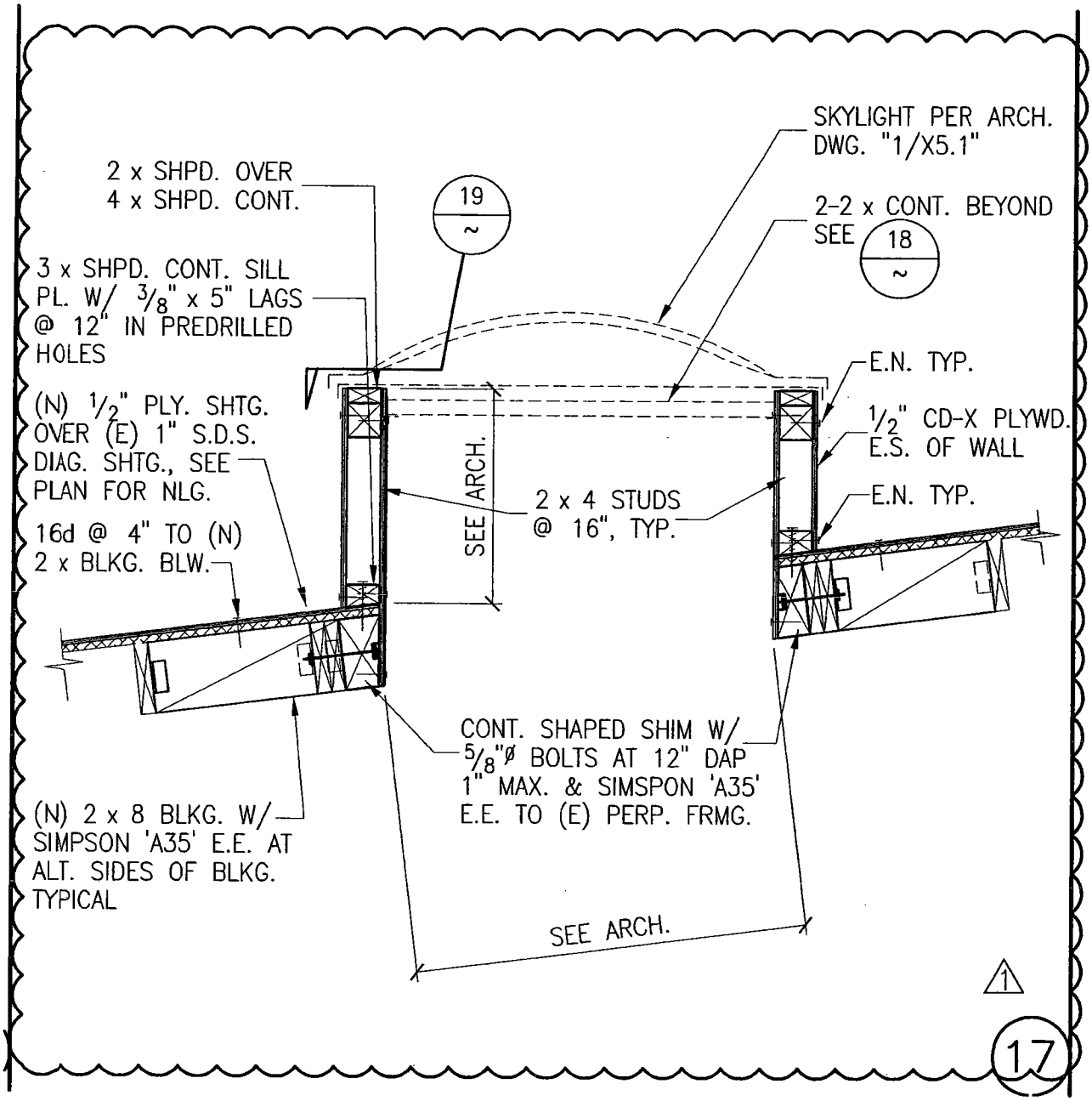
SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S1.2	Sheet: AD1-STR-SK5



REVISED DETAIL "17/S2.2"

REGISTERED PROFESSIONAL ENGINEER — Masahiro G. Nakahara — NO. 2165 Exp. 9-30-11 — STRUCTURAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — KEVIN S. FLEMING — NO. C26668 — 08-31-11 RENEWAL DATE — STATE OF CALIFORNIA

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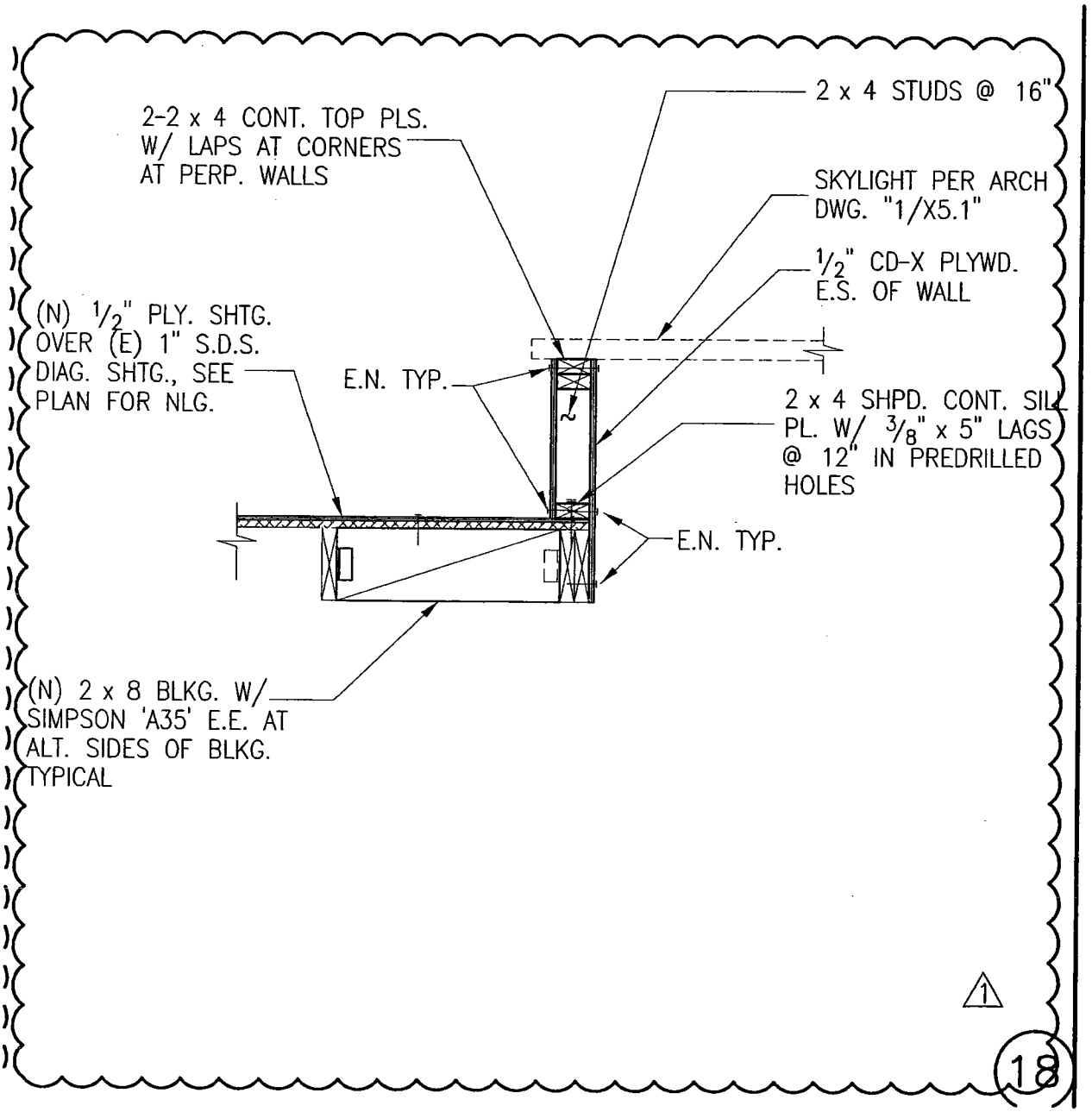
Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S2.2	Sheet: AD1-STR-SK6



REGISTERED PROFESSIONAL ENGINEER
Masahiro G Nakabara
NO. 2165
Exp. 9-30-11
STRUCTURAL
STATE OF CALIFORNIA

REVISED DETAIL "18/S2.2"

LICENSED ARCHITECT
KEVIN S. FLEMING
NO. C26668
08-31-11
RENEWAL DATE
STATE OF CALIFORNIA

MARTIN CHOW NAKABARA
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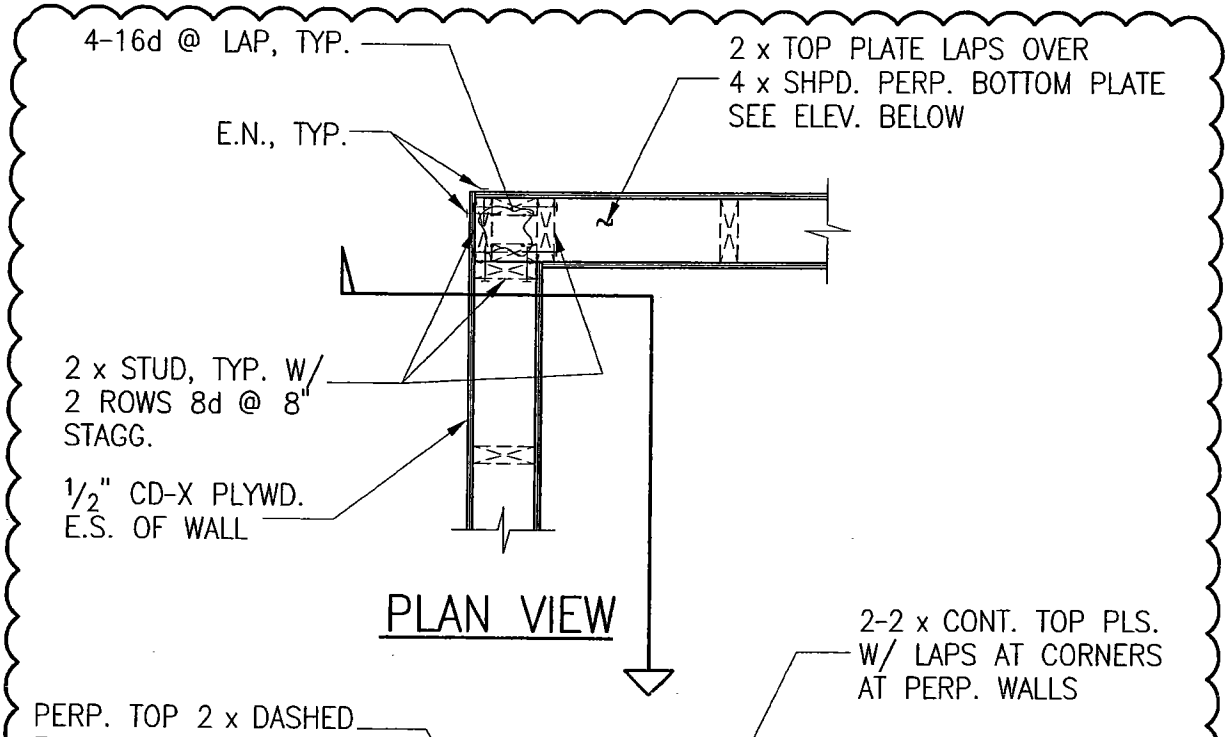
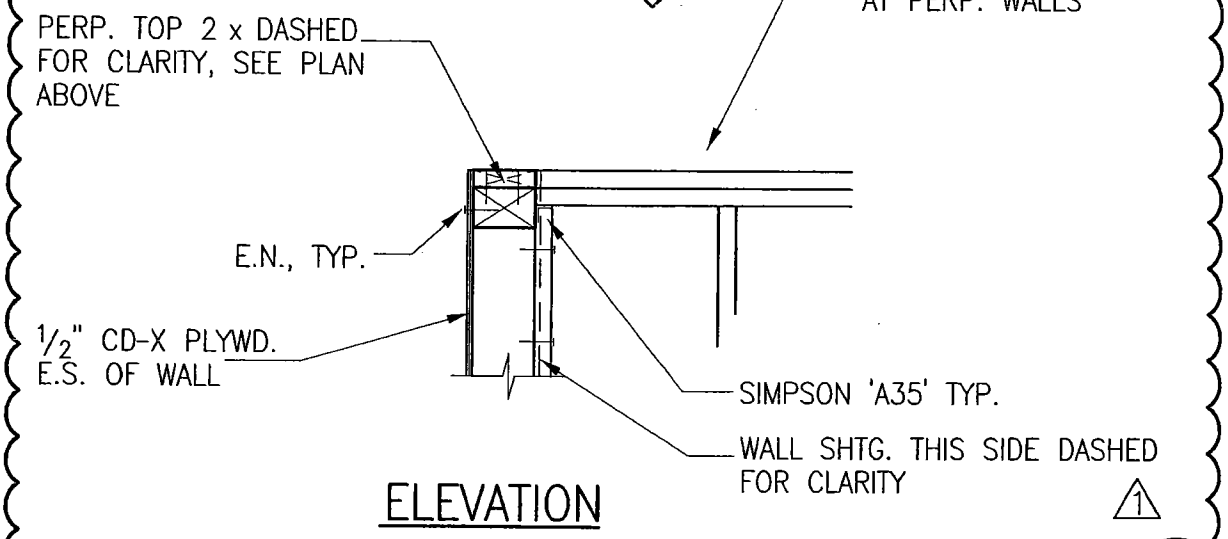
DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776
SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S2.2	Sheet: AD1-STR-SK7



PLAN VIEW



ELEVATION

1

NOT TO SCALE

19

REGISTERED PROFESSIONAL ENGINEER
Masahiro G Nakabara
NO. 2165
Exp. 9-30-11
STRUCTURAL
STATE OF CALIFORNIA

REVISED DETAIL "19/S2.2"

LICENSED ARCHITECT
KEVIN S. FLEMING
NO. C26668
08-31-11
RENEWAL DATE
STATE OF CALIFORNIA

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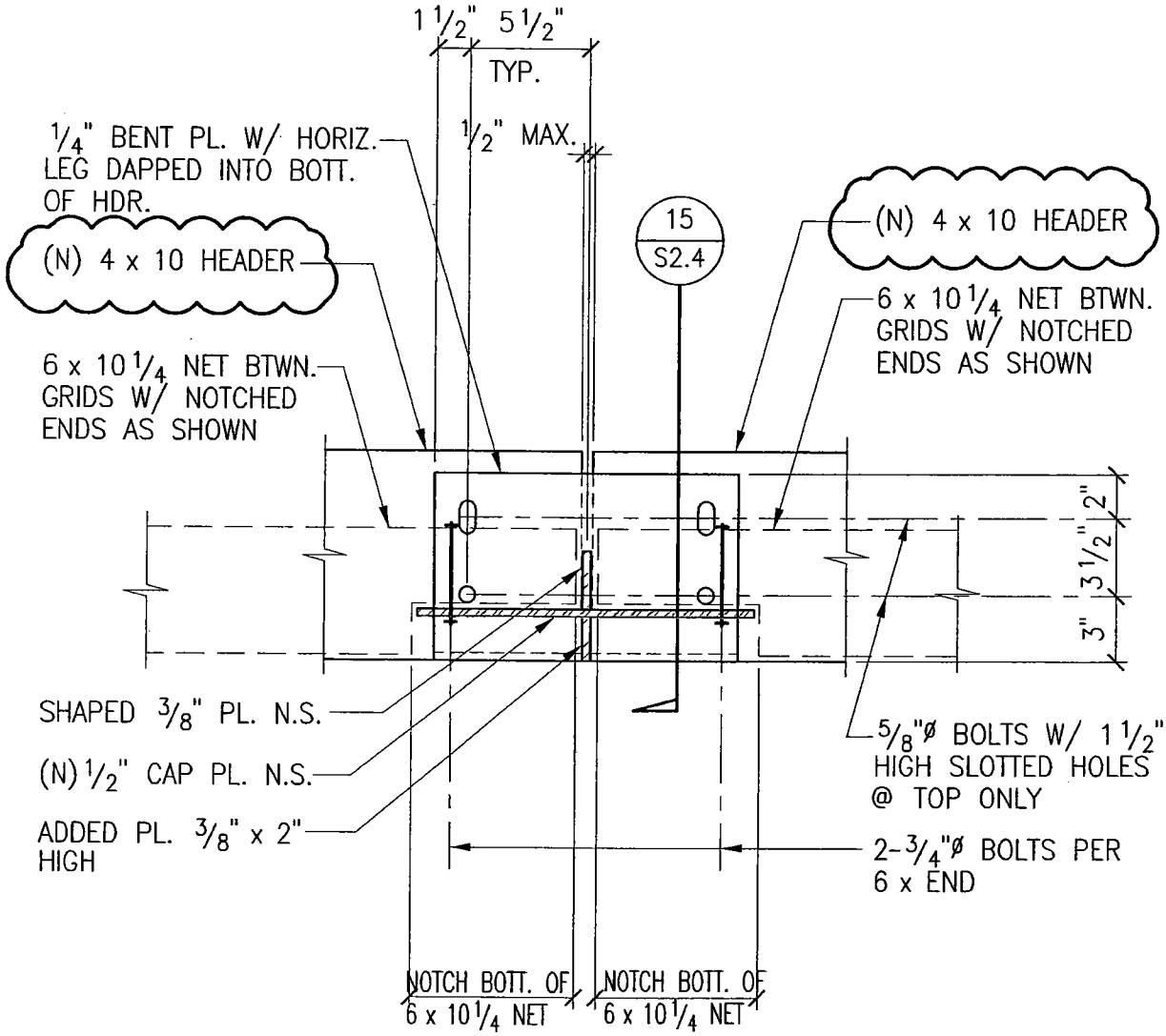
DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776
SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S2.2	Sheet: AD1-STR-SK8



1 1/2"=1'-0" (15)

REGISTERED PROFESSIONAL ENGINEER — Masahiro G Nakabara — NO. 2165 Exp. 9-30-11 — STRUCTURAL — STATE OF CALIFORNIA

REVISED DETAIL "15/S2.3"

LICENSED ARCHITECT — KEVIN S. FLEMING — NO. C26668 — 08-31-11 RENEWAL DATE — STATE OF CALIFORNIA

MARTIN CHOW NAKABARA
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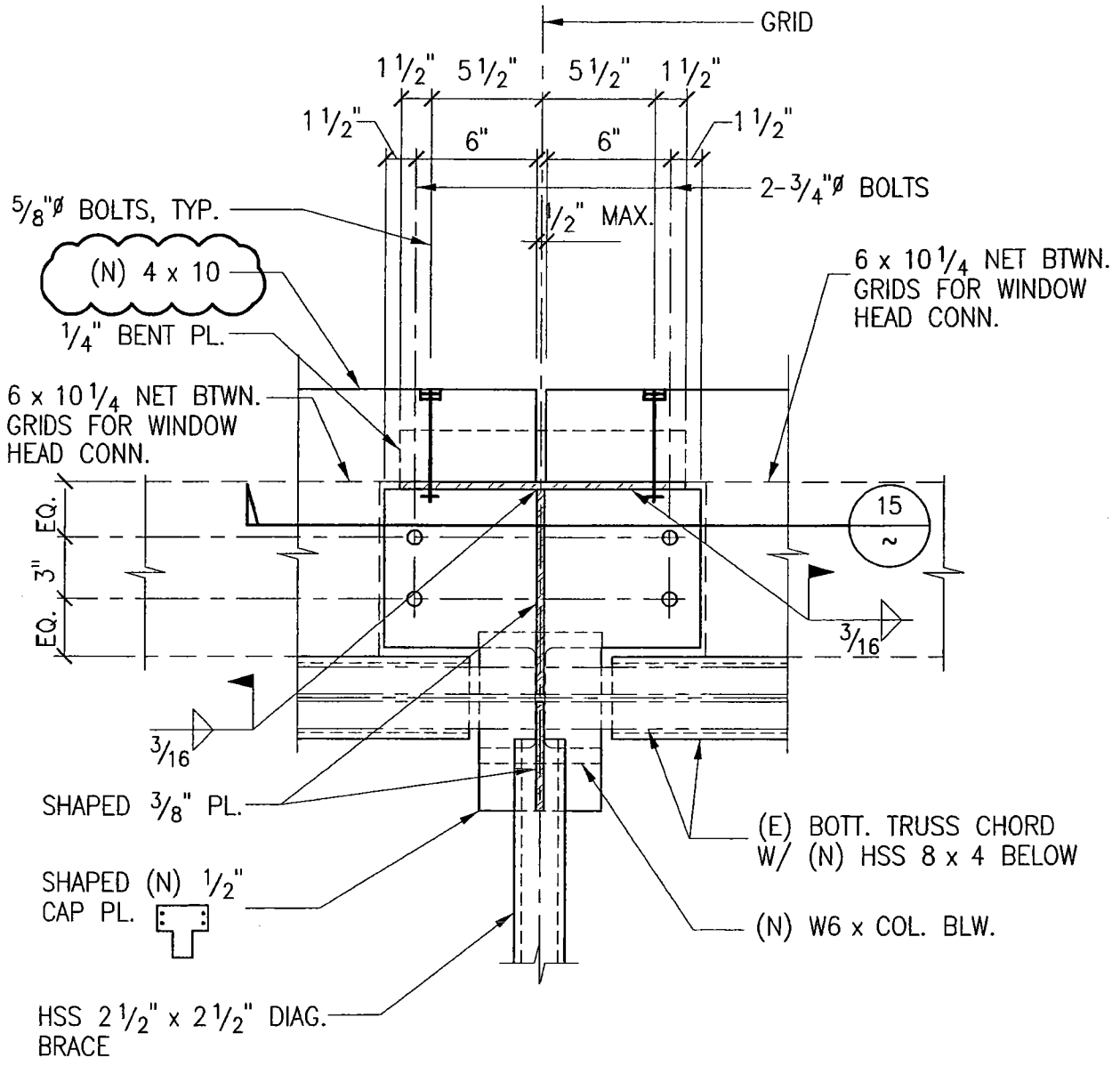
DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776
SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S2.3	Sheet: AD1-STR-SK9



PLAN VIEW

1 1/2" = 1'-0" (16)

REGISTERED PROFESSIONAL ENGINEER
Masahiro G Nakabara
NO. 2165
Exp. 9-30-11
STRUCTURAL
STATE OF CALIFORNIA

REVISED DETAIL "16/S2.3"

LICENSED ARCHITECT
KEVIN S. FLEMING
NO. C26668
08-31-11
RENEWAL DATE
STATE OF CALIFORNIA

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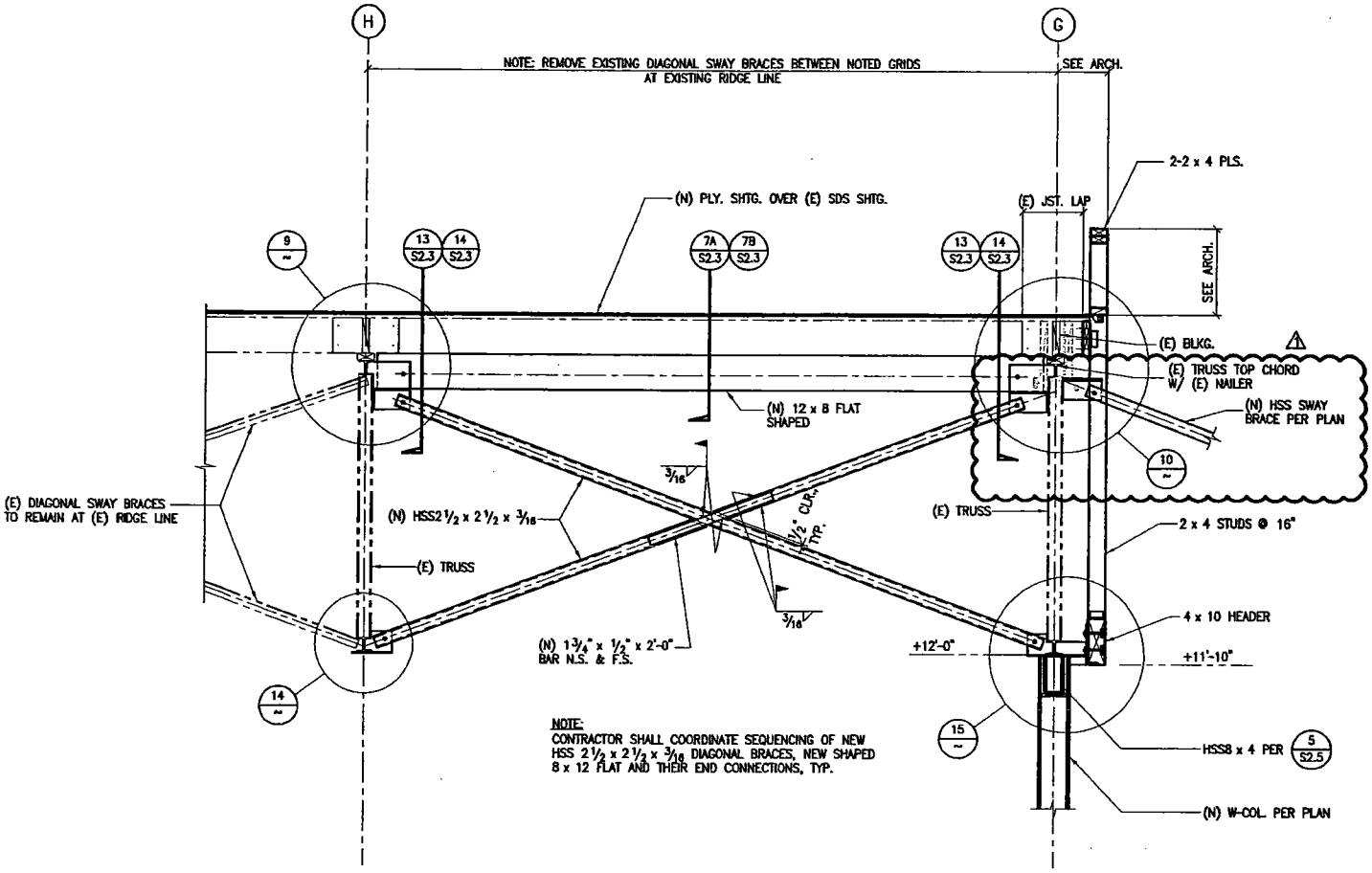
DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776
SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S2.3	Sheet: AD1-STR-SK10



ELEVATION DETAIL (13)

REGISTERED PROFESSIONAL ENGINEER — Masahiro G. Nakabara — NO. 2165 Exp. 9-30-11 — STRUCTURAL — STATE OF CALIFORNIA

REVISED DETAIL "13/S2.4"

LICENSED ARCHITECT — KEVIN S. FLEMING — NO. C26668 — 08-31-11 RENEWAL DATE — STATE OF CALIFORNIA

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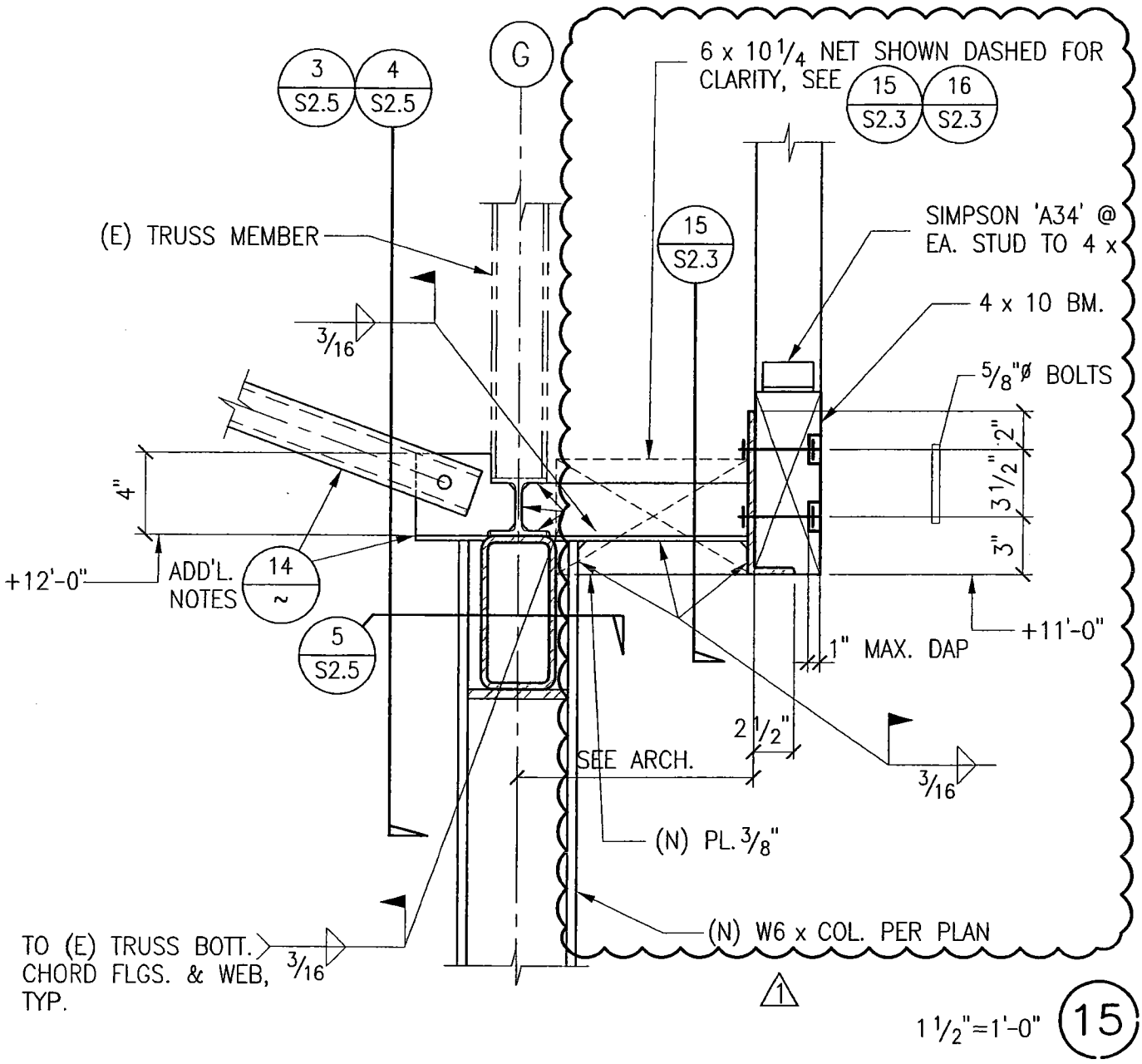
DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776
SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S2.4	Sheet: AD1-STR-SK11



REGISTERED PROFESSIONAL ENGINEER
Masahiro G. Nakabara
NO. 2165
Exp. 9-30-11
STRUCTURAL
STATE OF CALIFORNIA

REVISED DETAIL "15/S2.4"

MARTIN CHOW NAKABARA
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LICENSED ARCHITECT
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DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776
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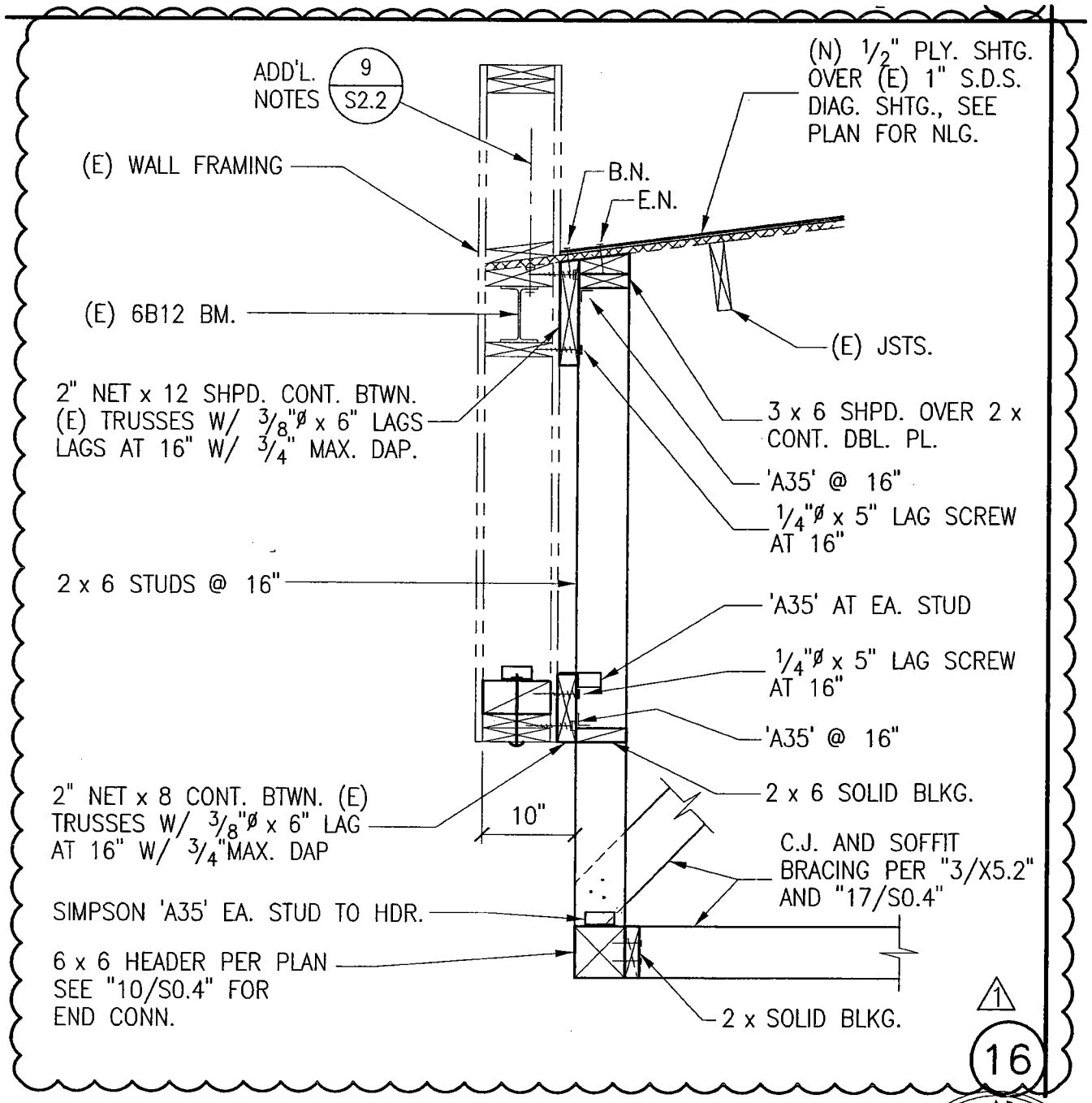
Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S2.4	Sheet: AD1-STR-SK12



NEW DETAIL "16/S2.6"

REGISTERED PROFESSIONAL ENGINEER — Masahiro G. Nakabara — NO. 2165 Exp. 9-30-11 — STRUCTURAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — KEVIN S. FLEMING — NO. C26668 — 08-31-11 RENEWAL DATE — STATE OF CALIFORNIA

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DEL MAR HIGH SCHOOL CEC
BUS DEPOT CONVERSION

312 DEL MAR AVE., SAN GABRIEL CA 91776
SAN GABRIEL UNIFIED SCHOOL DISTRICT

Appl. No: 03-112620	Job No: 20318	Date: 03.12.10
Drawn By: THH	Revisions: S2.6	Sheet: AD1-STR-SK13

SECTION 02870

SITE FURNISHINGS

PART 1 - GENERAL

1.01 SUMMARY

A. Provisions of Division 01 apply to this section.

B. Section Includes:
1. Site furnishings as indicated.

C. Related Sections:
1. Section 02751, Cement Concrete Pavement and Site Concrete.
2. Section 03300, Cast in place Concrete.

1.02 SUBMITTALS

A. Shop Drawings:.
1. Drawings showing scaled details of proposed site furnishings, elevations for each type of site furnishing; dimensions, details, and methods of mounting or anchoring; shape and thickness of materials; and details of construction.

B. Product Data: Manufacturer's descriptive data and catalog cuts.

C. Powder Coatings Certificate:
1. Submit a certificate from the manufacturer stating that the powder coat conforms to ASTM D 3451.

1.03 REFERENCES

A. ASME INTERNATIONAL (ASME)
1. ASME B18.2.1 (1996; Addenda A 1999; Errata 2003; R 2005) Square and Hex Bolts and Screws (Inch Series)
2. ASME B18.2.2 (1987; R 2005) Standard for Square and Hex Nuts (Inch Series)
3. ASME B18.21.1 (1999; R 2005) Lock Washers (Inch Series)
4. ASME B18.22.1 (1965; R 2003) Plain Washers
5. ASME B18.6.2 (1998; R 2005) Slotted Head Cap Screws, Square Head Set Screws, and Slotted Headless Set Screws: Inch Series.
6. ASME B18.6.3 (2003) Machine Screws and Machine Screw Nuts

B. ASTM INTERNATIONAL (ASTM)
1. ASTM A 123/A 123M (2002) Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
2. ASTM A 153/A 153M (2005) Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
3. ASTM A 185/A 185M (2007) Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete
4. ASTM A 307 (2007a) Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength

5. ASTM A 36/A 36M (2005) Standard Specification for Carbon Structural Steel
6. ASTM A 47/A 47M (1999; R 2004) Standard Specification for Steel Sheet, Aluminum-Coated, by the Hot-Dip Process
7. ASTM A 501 (2007) Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing
8. ASTM A 53/A 53M (2007) Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
9. ASTM A 615/A 615M (2007) Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
10. ASTM D 4060 (2007) Abrasion Resistance of Organic Coatings by the Taber Abraser.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Products of following manufacturer form basis for design and quality intended.
   1. Creative Pipe, Inc, PO Box 2458, Rancho Mirage, California 92270-1087 Toll free (800) 644-8467, Phone (760) 340-5555, Fax (760) 340-5883, Web www.creativepipe.com

B. Or equal as approved in accordance with Division 01, General Requirements for Substitutions.

2.02 MATERIALS

A. Materials shall be the standard products of a manufacturer regularly engaged in the manufacture of such products. The materials provided shall be of a type with proven satisfactory usage for at least 2 years.
   1. Metals
      a. Metal components shall be furnished with factory drilled holes. Components shall be free of excess weld and spatter. Metal components with holes that will not be filled by hardware or hidden by other components will be rejected.
   2. Anchors and Hardware
      a. Anchors shall be provided, where necessary, for fastening site furnishings securely in place and in accordance with approved manufacturer's instructions. Anchoring devices that may be used, when no anchors are otherwise specified or indicated, include anchor bolts, slotted inserts, expansion shields for concrete; toggle bolts and through bolts for masonry; machine carriage bolts for steel; and lag bolts and screws for wood. Anchor bolts shall conform to ASTM A 307. Hardware shall be stainless steel, zinc-plated or galvanized steel in accordance with ASTM A 153/A 153M and compatible with the material to which applied. All exposed hardware shall match in color and finish. Mounting hardware shall be concealed, recessed, and plugged.

2.03 TABLES

1. Picnic tables shall be furnished only. Table's exposed edges and corners shall be rounded, eased or chamfered.
2. Provide the following tables and accessories in quantities as shown on the drawings:
   a. Table based on Encino Picnic Table, Table top perforated steel sheet, 8' Long, embedded mounting, Polyester powder coated finish.

PART 3 - EXECUTION

3.01 INSTALLATION

A. The Contractor shall verify that finished grades and other operations affecting mounting surfaces have been completed prior to the installation of site furnishings. Site furnishings shall be installed plumb and true, at locations indicated, in accordance with the approved manufacturer's instructions.

B. Assembly and Erection of Components
   1. Items shall be shipped knocked-down (KD) ready for site assembly. Packaged components shall be complete including all accessories and hardware. New parts shall be acquired from the manufacturer; substitute parts will not be accepted unless approved by the manufacturer. When the inspection of parts has been completed, the site furnishings shall be assembled and anchored as indicated. When site furnishings are assembled at the site, assembly shall not interfere with other operations or pedestrian and vehicular circulation.

C. Anchorage, Fastenings, and Connections
   1. Furnish metal work, mounting bolts or hardware in ample time for securing into concrete as the work progresses. Provide anchorage where necessary for fastening furniture or furnishings securely in place. Make exposed fastenings of compatible materials, generally matching in color and finish the fastenings to which they are applied. Conceal fastenings where practicable.

3.02 CLEAN UP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

3.03 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

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SECTION 09640

RESILIENT WOOD FLOORING ASSEMBLIES

PART 1 - GENERAL

1.01 SUMMARY

A. Provisions of Division 01 apply to this section.

B. Section Includes:

1. Installation of district provided Resilient wood flooring system
2. Applied vented rubber base.

C. Related Sections:

1. Section 03300: Cast-In-Place Concrete
2. Section 06100: Rough Carpentry.
3. Section 09665: Rubber Base.
4. Section 09900: Paints and Coatings

1.02 SUBMITTALS

A. Shop Drawings: Submit Shop Drawings, including plans and details, indicating areas of flooring and details of installation and finishing.

B. Material Samples: Submit Samples of flooring finish

C. Installation Instructions: Submit manufacturer's installation instructions.

D. Warranty of chemical treatment manufacturer for each type of treatment.

E. Project Record Documents: Submit manufacturers cleaning, maintenance, and repair instructions.

1.03 QUALITY ASSURANCE

A. Comply with the following as a minimum requirement:

1. Installed surfaces and level changes shall be ADA compliant.
2. Permanent heat, light and ventilation shall be provided and operating during and after installation, maintaining a temperature range of 55 degrees to 78 degrees F. and a relative humidity range of 35 to 50 percent.
3. Performance Testing:

a. Flooring system shall have been independently tested and evaluated for athletic performance according to the international standard DIN 18032, Part 2.

b. Flooring system shall have been independently tested for S.T.E.M. by the Wood Institute at Michigan Tech.

B. Qualifications:

1. Installer: Trained and certified by flooring manufacturer.

1.04 DELIVERY, STORAGE AND HANDLING

A. Flooring shall be stored under ambient building conditions for at least 7 days or as required by the manufacturer before installation. Comply with flooring manufacturer's recommendations for acclimation during storage and before installation.

1.05 WARRANTY

A. Manufacturer shall provide a 2 year material warranty.

B. Installer shall provide a 2 year labor warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. District Supplied

2.02 MATERIALS

A. A. WOOD SUBFLOORING

1. Damp Proofing Membrane: 6 mil polyethylene.

B. B. ACCESSORY MATERIALS FOR WOOD FLOORING

1. Fasteners: Type and size recommended by manufacturer, but not less than recommended by NOFMA (National Oak Flooring Manufacturers Association) for each application.

a. Subfloor Fasteners: 1 inch staples or equivalent.

b. Flooring Fasteners: 2-inch barbed cleats, 2-inch epoxy, or coated staples.

2. Wood Filler: Provide as recommended by floor finish manufacturer.

3. Wall Base: 4-inch x 3-inch heavy duty molded, vented rubber cove base typical, color as selected by architect.

PART 3 - EXECUTION

3.01 DELIVERY AND HANDLING

A. General:

1. Comply with NOFMA standards.

2. Flooring shall not be installed in an indicated space and/or area until all overhead Work in the space and/or area is completed.

B. Protect wood flooring from excessive moisture during storage, and handling. Deliver in unopened bundles and store in a dry place with adequate air circulation.

C. Material Conditioning:

1. Store wood flooring materials in areas designated to receive the Work of this Section 7 days or as required by the manufacturer before the scheduled date of installation.

2. Maintain ambient temperature in range of 65 degrees F. (18 degrees C) to 90 degrees F. (32 degrees C) prior to, during, and after installation of wood flooring.

D. Sub-floors shall be cured for a minimum of 60 days before installation of flooring, and shall be broom-clean before installation.

3.02 INSTALLATION

A. Check for Dryness:

1. Before proceeding with installation of wood flooring over concrete substrate, check for dryness.

2. If not sufficiently dry, as determined by installer, continue to dry substrate, or provide extra moisture protection for flooring.

B. Install barrier membrane with a 6-inch minimum lap.

C. Pattern Direction: Install wood sub-flooring lengthwise parallel with proscenium opening at main stage and match this direction at all other rooms receiving special wood flooring.

D. Expansion Spaces:

1. Provide space as indicated or required by instructions and standards, at walls and other obstructions, interruptions and terminations of flooring.

2. Cover spaces with ventilating type bases, trim, saddles, and flush thresholds.

E. Treated Wood: When treated wood is cut, install a heavy brush coat of Woodlife on each cut surface of the material.

3.03 SANDING AND FINISHING

A. Allow installed wood sub-flooring to acclimate to ambient conditions for a minimum period of 10 days or as required by the manufacturer before sanding.

B. Machine sand with coarse, medium and fine grades of sandpaper. Vacuum clean and verify entire surface of each piece has been sanded, floor is level and smooth without ridges, cups or sanding machine marks which would be visually noticeable after finishing.

C. Install wood filler to voids. Immediately proceed with specified finish.

D. Install 3 coats of wood sealer in accordance with manufacturer's instructions.

E. Install expansion base trim and other indicated cover trim at edges and flooring interruptions.

3.04 CLEANUP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

3.05 PROTECTION

A. Protect the Work of this section until Substantial Completion.

3.06 INSTRUCTION

A. After Work of this section is complete, but before Substantial Completion, flooring manufacture's technical representative shall provide a 4 hour instruction to designated Owner staff in maintenance of flooring.

END OF SECTION

SECTION 09655

RUBBER FLOORING

PART 1 - GENERAL

1.01 SUMMARY

A. Provisions of Division 01 apply to this section.

B. Section Includes:

1. Rubber tile flooring for Fitness Center.

C. Related Sections:

1. Section 01330: Submittal Procedures
2. Section 08710: Finish Hardware
3. Section 09640: Resilient Wood Flooring Assemblies
4. Section 09665: Rubber Base

1.02 DEFINITIONS

A. Pop-up: A pop-up is defined as any surface deviation or looseness of substrate that is equal to or greater than 1/64 (0.015625) inch above the concrete floor level, regardless of the size.

1.03 SUBMITTALS

A. Product Data: Submit manufacturer's published technical data describing materials, construction, and recommended installation procedures Submit technical data and installation instructions for each adhesive material. Submit list and Product Data of recommended finish materials.

B. Maintenance Instructions: Submit manufacturer's recommendations for maintenance, care, cleaning of rubber tile.

C. Samples: Submit Samples of rubber tile in each available color and pattern. Following color selections, submit full size Samples of each selected color and pattern. Submit pint cans of each type adhesive.

D. Maintenance Materials: Before Substantial Completion, deliver one unopened container of each color and pattern of rubber tile in each color and pattern installed. Label each container indicating locations installed. Include unopened cans of adhesives adequate to install the maintenance materials.

E. Installer's Experience Qualifications: Submit list of not less than 5 projects, extending over period of not less than 5 years, indicating installer's experience

record. Submit letter from manufacturer indicating manufacturer's approval for installer of the products.

1.04 QUALITY ASSURANCE

A. Qualifications of Installer: Minimum 5 years experience in successfully installing the same or similar flooring materials.

B. Comply with the following as a minimum requirement:

1. ASTM E 84: Class A Flame Spread Rating of 25 or less.

C. All chemically based products such as sealers, primers, fillers, adhesives, etc. must be approved by Owner's Office of Environmental Health and Safety (OEHS).

1.05 DELIVERY, STORAGE AND HANDLING

A. Materials shall be delivered to Project site in original unopened manufacturer's packaging clearly labeled with manufacturer's name. Materials shall be stored at not less than 70 degrees F and 50% relative humidity for not less than 48 hours before installation.

1.06 PROJECT CONDITIONS

A. Ventilation and Temperature: Verify areas that are to receive new flooring are ventilated to remove fumes from installation materials, and areas are within temperature range recommended by the various material manufactures for Project site installation conditions.

1.07 WARRANTY

A. Manufacturer shall provide a 2 year material warranty.

B. Installer shall provide a 2 year labor warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Nora Rubber Flooring.

B. Johnsonite.

C. Flexco Corporation.

D. Roppe Corporation.

E. Or approved equal.

2.02 MATERIALS

A. Rubber Tile: ASTM F 1344, Extra Heavy Traffic, Specification for Rubber Floor Tile, Class I B, homogeneous rubber tile, through mottled pattern, 3/8 (.36) inch thick overall, 0.02 inch raised round pastilles, 39.34 inches by 39.45 inches, conforming to ADA requirements for non-slip materials.

B. Adhesive: Water based, low odor type formulated specially for use with rubber tile, and manufactured or recommended by manufacturer of rubber tile.

C. Floor Finish: Polymer type recommended by manufacturer for rubber flooring, UL rated non-slip.

D. Color(s): As selected by Architect from manufacturer's standard colors.

PART 3 - EXECUTION

3.01 COORDINATION

A. Coordinate with related Work to assure level, smooth, and clean finish surfaces to receive rubber floor tile and stair covering.

3.02 EXAMINATION

A. Field verify dimensions and other conditions affecting the Work of this section.

B. Before Work is commenced, examine surfaces that are to receive rubber tile and stair covering. Repair and/or replace defective Work before starting Work of this section.

3.03 PREPARATION

A. Concrete Slabs:

1. Do not start preparation until adjacent concrete floor slabs are at least 90 days old. General Contractor to test and/or provide valid, acceptable, test results to the end user, of the moisture content of the subfloor, prior to flooring installation, when tested as per ASTM F 20170. Results shall be <75% Relative Humidity. ASTM F2420 may be used as testing but results shall be <70% with this method. If not possible to provide a concrete substrate with an approved moisture level then an effective surface moisture suppression system shall be used. Note: This should be quoted and planned for, but only used if necessary.

2. Cleaning: shall fully conform to the requirements of ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring. Concrete substrate shall be structurally sound, finished shrinking, cracking, curling or moving. Contractor shall provide a non-burnished concrete surface free from any paint, wax, oil, grease, film forming curing compounds, silicate penetrating curing compounds, sealing, hardening or parting compounds. The surface should not have

any alkaline salts, laitance, mold, mildew, residual adhesive, adhesive removers or anything that may prevent adhesive/ smoothing compound bonding. If surface is not free of the previous contaminates, then the general contractor should provide the mechanical means to remove them, this could be Blastrac, diamond grinding or similar with a vacuum attachment. After leveling, clean substrates of all deleterious substances and foreign matter. Fill cracks or depressions with cementitious leveling compound of the type recommended by flooring manufacturer for the specific Work conditions.

3.04 INSTALLATION OF TILE

A. Color and pattern: Install tiles in a rectangular pattern, in one color without border in all locations, unless otherwise indicated.

B. Install rubber floor tile when ambient temperature is 70 degrees F. or higher.

C. Install the tile adhesive in a thin film evenly with a notched trowel. Trowel notches shall be as recommended by flooring manufacturer.

1. Mix adhesive in accordance with manufacturer's instructions. Provide safety precautions during mixing.

2. Install adhesive only in the area that can be covered by flooring material within the adhesive manufacture's recommended working time.

3. Remove any adhesive that has dried or filmed over.

4. Adhesive application rate shall be as required to avoid telegraphing trowel lines to the surface after maintenance coatings are applied. Adjust tile runoff during installation if necessary.

C. Install rubber tile in accordance with manufacturer's recommendations. Tiles shall fit snugly at wall. Closely trim to pipes, jambs, outlets, and similar conditions.

D. Install tiles symmetrically about centerlines of areas while progressing toward walls. Adjust border tiles as required. Tiles shall be straight and joints close. Tile shall be cut to fit snugly at doorframes and walls.

E. Mechanically cut flooring material to provide square true edges.

F. As floor tile is installed, the floor shall be rolled with a clean, 150-pound roller in both directions.

3.05 CLEANING, WAXING, AND COMPLETION

A. Maintain all flooring and stair tread surfaces clean as installation progresses.

B. Clean flooring and treads when sufficiently seated and remove foreign substances.

C. Before Substantial Completion, install at least two coats of floor finish on rubber tile flooring, in accordance with manufacturer's instructions. Do not buff polymeric floor finish unless specifically recommended by finish manufacturer.

D. Clean adjacent surfaces of adhesive or other deleterious conditions.

3.06 CLEAN UP

A. Remove rubbish, debris and waste material and legally dispose of off the Project site.

3.07 PROTECTION

A. Protect the Work of this section until Substantial Completion.

3.08 INSTRUCTION

A. After Work of this section is complete, flooring manufacture's technical representative shall provide a 1 hour instruction period to Owner staff in maintenance of flooring.

END OF SECTION

SECTION 09665

RUBBER BASE

PART 1 - GENERAL

1.01 SUMMARY

A. Provisions of Division 01 apply to this section.

B. Section Includes:

1. Topset coved rubber base for installation with surface flooring.

C. Related Sections:

1. Division 01
2. Section 09250: Gypsum Wall and Ceiling Board
3. Section 09640: Resilient Wood Flooring. Note: Resilient Wood Flooring Section provides for its own base.
4. Section 09660: Resilient Tile Flooring.
5. Section 09655: Rubber Flooring

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's published technical data describing materials, construction and recommended installation instructions. Submit technical data and installation instructions for each adhesive material.

B. Maintenance Instructions: Submit manufacturer's recommendations for maintenance, care and cleaning of base.

C. Samples: Submit Samples of top set base in each available color. Following color selections, submit Samples, not less than 12 inches long of each selected color and type. Submit pint cans of each type adhesive.

D. Maintenance Materials: Before Substantial Completion, deliver at least 50 lineal feet and 5 outside corner units of each color of rubber base installed. Deliver the materials in unopened factory containers or in sealed cartons with labels identifying the contents, matching installed materials. Include unopened cans of adhesives adequate to install the maintenance materials.

1.03 QUALITY ASSURANCE

A. Qualifications of Installer: Minimum 5 years experience in successfully installing the same or similar flooring materials.

B. Comply with the following as a minimum requirement:

1. ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials.

2. ASTM F 1861: Standard Specification for Resilient Wall Base.

3. All chemically based products such as sealers, primers, fillers, adhesives, etc. must be approved by Owner's Office of Environmental Health and Safety (OEHS).

4. Each selected color and configuration shall be from same dye lot and color.

1.04 DELIVERY, STORAGE AND HANDLING

A. Materials shall be delivered to the Project site in original unopened manufacturer's packaging clearly labeled with manufacturer's name. Store materials at room temperature, but not less than 70 degrees F, for a minimum of 48 hours before installation, unless otherwise indicated in manufacturer's printed instructions..

1.05 PROJECT CONDITIONS

A. Ventilation and Temperature: Verify areas that are to receive rubber base are ventilated to remove fumes from installation materials, and areas are within temperature range recommended by the various material manufactures for site installation conditions.

1.06 WARRANTY

A. Manufacturer shall provide a 5 year material warranty.

B. Installer shall provide a 2 year labor warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Roppe, Pinnacle Rubber Wall Base. [Note to Architect: Roppe Pinnacle rubber base contains 10% natural rubber – a renewable resource. This would qualify for Credit ME4.2, a very difficult Credit to come by.

B. Johnsonite Rubber Wall Base.

C. Flexco Company, Wallflower Premium Rubber Wall Base.

D. Or approved equal.

2.02 MATERIALS

A. Rubber base: Conform to ASTM F 1861; Group 2, solid (homogeneous); Type 1, TS, (thermoset) vulcanized rubber, Style A, 4 inch high unless otherwise indicated, integral colors as selected, non-shrinking, 1/8 inch thick., Products must contain a portion, at least 10-per cent, of natural rubber and/or at least 5-per cent of recycled content.

B. Base Adhesive: Water based, low odor type, as recommended by manufacturer of rubber base.

PART 3 - EXECUTION

3.01 COORDINATION

A. Coordinate the Work of this section with other sections to provide a level, smooth and clean finish surfaces to receive rubber base.

3.02 EXAMINATION

A. Field verify dimensions and other conditions affecting the Work of this section before commencing the Work of this section.

B. Before Work is started, examine surfaces that are to receive rubber base. Deficiencies shall be corrected before starting the Work of this section.

3.03 PREPARATION

A. Do not start preparation until adjacent concrete floor slabs are at least 90 days old and finish flooring is installed.

B. Install rubber base when ambient temperature is 70 degrees F. or higher.

3.04 INSTALLATION

A. Install top set base at all hard floors, including resilient flooring, concrete and wood, carpet and other soft floors, unless otherwise indicated on drawings.

B. Securely fasten cement base to backing in long lengths in accordance with manufacturer's recommendations. Lay out lengths so that not less than 18 inches long filler pieces are provided. Assure that top and toe continuously contact the wall and floor, and that all joints are tight. Install matching factory formed external corners at all offsets. All inside corners shall be coped; wrapped corners are not acceptable.

C. Use of adhesive gun is prohibited. Apply adhesive directly to substrate using the appropriate notched trowel or spreader according to manufacturer's instructions. Maintain 1/8 inch gap from top of base to prevent adhesive oozing onto adjacent surfaces.

D. Base and outside corners shall be rolled with a seam roller before adhesive sets.

3.05 CLEANING

A. Maintain surfaces of base clean as installation progresses. Clean rubber base when sufficiently seated and remove foreign substances.

B. Clean adjacent surfaces of adhesive or other defacement. Replace damaged and/or defective Work to the specified condition.

3.06 CLEAN UP

A. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

3.07 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

SECTION 09720

TACKABLE WALL SURFACING

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Tackable Wall Surfacing

B. Related Sections/Items:

1. Division 01: CHPS Certification and related Sections.
2. Primer/sealer application on gypsum board substrate, refer to Section 09900.

1.02 SUBMITTALS

A. Comply with provisions as outlined in Division 01 and Section 01330.

B. Product data indicating compliance with specified requirements.

C. Installation instructions.

D. Samples:

1. 6"x9" (150mm x 225mm) samples of each type of Wall Surfacing material required.

E. Upon completion of the project, submit all receipts for all tackable wall surfacing installed in the project showing the total cost of the material, to the Architect. Include a summary showing the total material cost for all tackable wall surfacing, as well as percentages of pre- and post-consumer recycled content and renewable resource content.

1.03 QUALITY ASSURANCE

A. Fire Performance Characteristics: Comply with fire performance characteristics indicated below. Identify components with markings from testing and inspection organization.

1. ASTM E-84 (Fuel Contribution) – Class B
2. NFPA 225 (Critical Radiant Flux) – Class II

B. Single Source Responsibility: Obtain tackable wall covering system components from a single source.

C. Deliver materials in original factory wrappings and containers, clearly labeled with manufacturer, brand name, and fire hazard classification.

D. Store materials in original undamaged packages and containers inside a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.
   1. Maintain room temperature within the storage area at not less than 70°F (21°C) during the period materials are stored.

E. Mock-ups: Prepare mock-ups for Architect's review and to establish requirements for seaming and finish trim.

   1. Correct areas, modify method of application/installation, or adjust finish texture as directed by Architect to comply with specified requirements.
   2. Maintain mock-ups accessible to serve as a standard of quality for this Section.
   3. Install sample panel of each type wall covering specified.
   4. Install panels in areas designated by Architect.

1.04 PROJECT CONDITIONS

A. Maintain ambient temperature within building at not less than 68°F (20°C) for a minimum of 72 hours prior to beginning installation.

   1. Do not install Bulletin Board until the space is enclosed and weatherproof. The temperature of the building should not be less than 68°F (20°C) for a minimum of 72 hours prior to installation.
   2. Do not install Bulletin Board until the temperature is stabilized and the permanent lighting is in place.

1.05 MAINTENANCE

A. Maintenance instructions: Include precautions against cleaning materials and methods that may be detrimental to finishes and performance.

B. Extra materials: Deliver to Owner extra materials from same production run as installed products. Package with protective materials.

   1. Provide 5% of amount installed.

1.06 WARRANTY

A. Manufacturer's standard 5-year limited warranty.

PART 2 – PRODUCTS

2.01 PRODUCTS

A. Manufacturer: Forbo Linoleum, Inc., Humboldt Industrial Park, P.O. Box 667, Hazleton, PA 18201 or approved equal. Phone: 800-842-7839. Phone: 570-459-0771. Fax: 570-450-0258. Email: info@fL-NA.com. Website: www.forboflooringNA.com.

B. Forbo Bulletin Board: Uni-color linoleum resilient homogeneous tackable surface consisting of linseed oil, granulated cork, rosin binders and dry pigments calendared onto a natural burlap backing. Color shall extend through thickness of material.

1. Bulletin Board Linoleum resilient tackable surface material: Width 48-inches. Gauge: ¼-inch. 90-linear feet rolls (approximately). Minimum corner bend 2-3/4-inches. Dimensionally stable due to burlap backing.

2. Install as shown on Interior Elevations on the Drawings.

3. All products shall be SMART Platinum certified.

2.02 ACCESSORIES

A. Adhesive: Solvent free, SBR type linoleum adhesive; or polyvinyl acetate dispersion type (contact cement) when used in press.

B. Forbo L910 adhesive.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Examine areas and conditions in which Bulletin Board will be installed.

1. Complete finishing operations, including painting, before beginning installation of Bulletin Board materials.
2. Wall surfaces to receive tackable wall surfacing material shall be dry and free from dirt, grease, loose paint and scale.
3. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Surface preparation: Remove hardware, accessories, plates and similar items to allow tackable wall surfacing to be installed.

1. Gypsum board surface: Recess nails and screws. Repair irregular tape joints, sand and remove dust.
2. Painted surfaces: Remove loose paint or scale. Sand surface of enamel or gloss paint and rinse with clear water.
3. Ensure gypsum wallboard surfaces scheduled to receive Bulletin Board are properly primed under Section 09900.

B. Prime substrate as recommended by manufacturer.

3.03 APPLICATION

A. Comply with manufacturers printed installation instructions.

B. Apply adhesive with 1/16-inch square notch trowel to area to receive sheet.
C. Work from top to bottom then side to side. Roll sheet firmly into adhesive for positive contact and to remove air bubbles.
D. Remove adhesive residue immediately.
E. Scribe, cut and fit material to butt tightly to adjacent surfaces, built-in casework and permanent fixtures and pipes.
F. Lap and double cut seams.
G. Joints: Butt joint. Butted, V-grooved.

3.04 CLEANING

A. Clean wall covering using a sponge with a neutral pH cleaning solution. Do not use abrasive cleaners. Rinse thoroughly with water and let dry before using.

B. Remove excess adhesive using methods and materials recommended by manufacturer.

3.05 PROTECTION

A. Protect installed product and finish surfaces from damage during construction.

END OF SECTION

SECTION 10110

MARKERBOARDS

PART 1 - GENERAL

1.01 SUMMARY

A. Provisions of Division 01 apply to this section.

B. Section Includes:

1. Wall mounted markerboards of size indicated on Drawings or Schedules.

C. Related Sections:

1. Section 06100: Rough Carpentry (blocking).
2. Section 09250: Gypsum Wall and Ceiling Board
2. Section 09900: Paint and Coatings.

1.02 SUBMITTALS

A. Shop Drawings: Shop Drawings to indicate gages, profiles, sections of materials, details of construction, hardware, methods of attachment and/or anchoring, as applicable for specified materials.

B. Samples: Submit the following:

1. 3 inch x 5 inch markerboard Samples, provide manufacturer's full range of colors.

C. Product Data: Submit manufacturer's technical data, product specifications, installation instructions, and other pertinent information as applicable for each product or material specified.

D. Test Reports: Submit certified laboratory test reports as applicable to indicate compliance with specified requirements.

1.03 QUALITY ASSURANCE

A. Manufacturer shall have been regularly engaged in the business of manufacturing markerboards for at least 5 years.

B. Comply with requirements and recommendations of applicable portions of Porcelain Enamel Institute - PEI 2.

1.04 PRODUCT HANDLING

A. Deliver materials to the Project site with manufacturer's labels intact and legible.

B. Provide all means necessary to protect markerboards before, during and after installation.

1.05 JOB CONDITIONS

A. Sequencing, Scheduling:

1. Coordinate with related Work of other sections including backing in wood stud partitions and gypsum board.
2. Do not install markerboards until paint is installed to surfaces concealed behind them.

1.06 SPECIAL PROJECT WARRANTY

A. Manufacturer shall provide a 50 year material warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS (MARKERBOARDS)

A. Alliance Wall Corporation

B. Claridge Inc.

C. Greensteel, Inc., a division of Polyvision Corporation.

D. Nelson – Adams Company.

E. Tri-Best

2.02 SYSTEM PERFORMANCE

A. System shall be comprised of factory assembled markerboards, in configurations and sizes indicated on the Drawings or as specified herein.

B. Laminations of panel components shall be by face sheet manufacturer.

2.03 MATERIALS

A. Wall-Mounted Markerboards: Greensteel "AZ" Series, as a standard of quality:

1. Dry markerboards shall be porcelain enamel steel manufactured to exceed the performance specifications for porcelain enamel S104 of the Porcelain Institute. Markerboards shall be capable of supporting papers by means of magnets. The writing surface shall resist wear and damage from shock and abrasion and shall not dent, shatter or crack. The surfaces shall retain original color, writing, and erasing qualities and shall not become glossy or shiny in normal use. The gloss variation of a surface shall not exceed 3 units when measured by a 45 degree gloss meter in accordance with the Porcelain Enamel Institute Bulletin 1-18 Gloss Test for Porcelain Enamels and ASTM C 346.
2. Steel: Base metal shall be high quality enameling iron or steel of low metalloid and copper content, especially manufactured and processed for temperatures over 1,400 degrees F. used in coating porcelain on steel units for Architectural purposes; minimum 24 gage.
3. Facing Surfaces:
   a. Board surfaces shall consist of the following:
      1) Primer coat, 0.0025 inch minimum thickness.
      2) Vitreous-porcelain writing surface coating of 0.0025 inch minimum thickness.

3) The reverse side of the steel base sheet shall receive a ground coat of 0.0005 inch thickness and a spray coat of silicon.

4) The panel edges at butt joints shall be porcelain enamel.

5) Fuse cover and ground coats to the steel at the manufacturer's standard firing temperature, but at least 1,250 degrees F.

4. The dry markerboard surfaced steel shall be factory laminated to 7/16 inch thick fiberboard core. A moisture blocking backing sheet shall be provided.
   a. Fiberboard Core shall be #45 pound particle board.
   b. Moisture Barrier Backer Sheet shall be minimum .015 aluminum or 28 gauge galvanized steel. Backer sheet shall be factory laminated to the core under pressure.
5. Lamination: The surface facing and the backing shall be bonded to the core material by means of a special flexible adhesive developed for this purpose with no unbonded area. The face and back shall not be removable without rupturing the core material. Panels shall not delaminate under normal use.
6. Joints: Where vertical joints occur, a 14 gage continuous concealed steel spline shall be fitted tightly into grooves in the core material. Factory rabbet to produce a smooth butt joint. Do not furnish exposed trim.
7. Edge Trim:
   a. Alloy 6063-T5, extruded, anodized satin finish aluminum.
8. Chalktray: Furnish manufacturer's standard continuous flat-ribbed or box-type aluminum chalktray with stained front and cast plastic end closures for each markerboad.
   a. Extend chalktray to end of both vertical edges of the board.
   b. On flat-rib tray, provide 3/4 inch radius on corners and polish at ends.
9. Map Rail: Furnish map rail at the top of each unit, complete with the following accessories:
   a. Display rail: Provide continuous cork display rail two inch wide, as indicated, integral with the map rail. Extend display rail to end of both vertical edges.
   b. End stops: Provide one end stop at each end of the map rail.
   c. Map hooks: Provide 2 map hooks with flexible paper holder clips for each 8 feet of map rail or fraction thereof.
   d. Roller Map Bracket: Provide 2 for each 8 feet of map rail or fraction thereof
   e. Flagpole holder.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install markerboards, trim, map rail and marker tray in accordance with manufacturer's directions and reviewed Shop Drawings. Fasteners for assembly of trim and frame units shall be truss head aluminum or stainless steel self-tapping screws with double cadmium-plated finish.

B. Install panels after finish painting of wall surfaces has been completed and paint is cured. Install panels level, plumb and neatly assembled. Before Substantial Completion, trim shall be completely cleaned of dirt, finger-marks, or other foreign material.

3.02 CLEANUP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

3.03 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

SECTION 10750

FLAGPOLE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes ground-mounted aluminum flagpoles. Provide the flagpole and flags complete, in place, as shown on the Drawings and specified herein. Install flagpole in manufacturer's standard ground sleeve and leveling plate.

B. Related Sections:

1. Division 03 Section "Cast-In-Place Concrete" for flagpole base/footing.

1.3 PERFORMANCE REQUIREMENTS

A. Structural Performance: Flagpole assemblies, including anchorages and supports, shall withstand the effects of gravity loads, and the following loads and stresses within limits and under conditions indicated according to the following design criteria:

1. Seismic Loads: 2007 California Building Code (CBC).
2. Wind Loads: 70 mph. Wind loads as determined according to NAAMM FP 1001, "Guide Specifications for Design of Metal Flagpoles."
3. Base flagpole design on polyester flags of maximum standard size suitable for use with flagpole or flag size indicated, whichever is more stringent.

1.4 SUBMITTALS

A. General: Comply with provisions as outlined in Section 013300.

B. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, operating characteristics, fittings, accessories and finishes for flagpoles.

B. Shop Drawings: For flagpoles. Include plans, elevations, details, and attachments to other work. Show general arrangement, jointing, fittings, accessories, grounding, anchoring, and support.

1. Include section, and details of foundation system for ground-mounted flagpoles.

C. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.

D. Operation and Maintenance Data: For flagpoles to include in operation and maintenance manuals. Instruction training documentation as referenced in Part 3.3-E.

1.5 QUALITY ASSURANCE

A. Standards: Comply with applicable standards as referenced in this Section and as referenced in Section 01400.

B. Source Limitations: Obtain flagpole as a complete unit, including fittings, accessories, base sleeve, grounding and anchorage devices, from a single-source manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. General: Spiral wrap flagpoles with heavy paper and enclose in a hard fiber tube or other protective container. Provide for all means necessary to protect the materials of this Section before, during and after installation. In the event of damage, replace all damaged parts with new parts.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. American Flagpole Inc.; a Kearney-National Inc. company.
2. Concord Industries, Inc.
3. Eder Flag Manufacturing Company, Inc.
4. Lingo Inc.; Acme Flagpole Company Division.
5. Pole-Tech Company Inc.
6. Or approved equal.

2.2 FLAGPOLE

A. Flagpole Construction, General: Construct flagpoles in one piece if possible. If more than one piece is necessary, comply with the following:

1. Fabricate shop and field joints without using fasteners, screw collars, or lead calking.
2. Provide flush hairline joints using self-aligning, snug-fitting, internal sleeves; revolving non-fouling truck typical.
3. Provide self-aligning, snug-fitting joints.

B. Exposed Height: 25-feet

C. Aluminum Flagpoles: Provide entasis-tapered flagpoles fabricated from seamless extruded tubing complying with ASTM B 221, Alloy 6063-T6, with a minimum wall thickness of .125-inches, tensile strength not less than 30,000 PSI and a yield-point of 25,000 PSI, heat-treated and age-hardened after fabrication.

D. Sleeve for Aluminum Flagpole: Fiberglass or corrugated steel foundation sleeve, 42-inches in length, made to fit flagpole, for casting into concrete foundation.

1. Provide heavy-duty flashing collar of same material and finish as flagpole.

2.3 FITTINGS AND ACCESSORIES

A. Finial Ball: Manufacturer's standard flush-seam ball, sized as indicated or, if not indicated, to match flagpole-butt diameter.

1. 0.063-inch spun aluminum, natural-anodized aluminum finished to match flagpole.

B. Internal Halyard, Winch System: Manually operated winch with control stop device and removable handle, stainless-steel cable halyard, and concealed revolving truck assembly with plastic-coated counterweight and sling. Provide flush access door secured with cylinder lock. Coordinate keying with District standards. Finish truck assembly to match flagpole.

1. Halyard Flag Snaps: Provide two (2) sets stainless-steel swivel snap hooks per halyard.

a. Provide with neoprene or vinyl covers.

2. Plastic Halyard Flag Clips: Made from injection-molded, UV-stabilized, acetal resin (Delrin). Clips attach to flag and have two eyes for inserting both runs of halyards. Provide two flag clips per halyard.

C. Ground-mounting parts: Manufacturer's leveling base plate with wedges, collar and grounding spike.

D. Flags: Two (2) American flags and two (2) California State Flags, nylon 4x6-feet.

2.4 MISCELLANEOUS MATERIALS

A. Elastomeric Joint Sealant: Single-component urethane or single-component neutral-curing silicone joint sealant complying with requirements in Section 07920 Joint Sealants for Use NT (non-traffic) and for Use M, G, A and, as applicable to joint substrates indicated, O otherwise.

B. Drainage Material: Crushed stone, or crushed or uncrushed gravel; coarse aggregate.

C. Concrete for foundation base: see detail 4/X1.2. Refer to Section 03300 for Concrete requirements.

D. Sand: ASTM C 33, fine aggregate.

E. Non-shrink, Nonmetallic Grout: Factory-packaged, non-staining, non-corrosive, nongaseous grout complying with ASTM C 1107.

2.5 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6 ALUMINUM FINISHES

A. Natural Satin Finish: AA-M32, fine, directional, medium satin polish; buff complying with AA-M20; seal aluminum surfaces with clear, hard-coat wax.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, including foundation; accurate placement, pattern, orientation of anchor bolts, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Prepare uncoated metal flagpoles that are set in foundation tubes by painting below-grade portions with a heavy coat of bituminous paint.

B. Foundation Excavation: Excavate to neat clean lines in undisturbed soil. Remove loose soil and foreign matter from excavation and moisten earth before placing concrete. Place and compact drainage material at excavation bottom.

C. Provide forms where required due to unstable soil conditions and for perimeter of flagpole base at grade. Secure and brace forms to prevent displacement during concreting.

D. Place concrete, as specified in Division 03 Section "Cast-in-Place Concrete." Compact concrete in place by using vibrators. Moist-cure exposed concrete for not less than seven days or use nonstaining curing compound.

E. Trowel exposed concrete surfaces to a smooth, dense finish, free of trowel marks, and uniform in texture and appearance. Provide positive slope for water runoff to perimeter of concrete base.

3.3 FLAGPOLE INSTALLATION

A. General: Install flagpoles where shown and according to Shop Drawings and manufacturer's written instructions.

B. Ground Set: Place grounding spike and base-plate set into firm, compacted soil with resting plate level and in contact with soil. Place sleeve, center, and brace to prevent displacement during concreting. Place concrete. Plumb and level sleeve and allow concrete to cure. Install flagpole, plumb, in sleeve.

1. Foundation Tube: Place tube seated on bottom plate between steel centering wedges and install hardwood wedges to secure flagpole in place. Place and compact sand in foundation tube and remove hardwood wedges. Seal top of foundation tube with a 2-inch layer of elastomeric joint sealant and cover with flashing collar.

C. Instruct District personnel in the use, operation and maintenance of the flagpole. Submit written documentation that training has been provided, signed by both the flagpole installer and District Representative.

END OF SECTION

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SECTION 11680 PLAYFIELD EQUIPMENT AND STRUCTURES

(HIGH SCHOOLS)

PART 1 - GENERAL

1.1 SUMMARY

A. Provisions of Division 01 apply to this section

B. Section includes the following types of play equipment and structures:
   1. Basketball Backboards and Equipment.

C. Related Sections:
   1. Section 02310: Grading.
   2. Section 02500: Paving and Surfacing
   3. Section 02530: Pavement Markings.
   4. Section 03300: Cast-In-Place Concrete.
   5. Section 09900: Paints and Coatings.

1.2 SUBMITTALS

A. Coordination Drawings: Layout plans and elevations indicating extent of playfield equipment with playfield surface systems. Indicate playfield equipment locations and installation.

B. Product Data: For each type of product specified. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

C. Certificates: Signed by manufacturers of playfield equipment certifying that products furnished comply with DSA and Contract Documents.

1.3 QUALITY ASSURANCE

A. Comply with NAAMM'S "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating metal finishes.

PART 2 - PRODUCTS

2.1 PLAYFIELD EQUIPMENT, GENERAL

A. Athletic Equipment:
   1. Basketball Backboards:
      a. Manufacturer/Product:

1) Porter Athletic Equipment Co. / "Outdoor Backstop", Shiller, IL, 60155, telephone (800-947-6783), contact Mike Kurnik, PO Box 811, La Verne, CA 91750 (909)598-6449, as a standard of quality
2) L.A. Steelcraft
3) Gametime.

b. Type:
1) Model #00166-234 Outdoor 6' Extended Vertical Post Backstop with #234 Fan Aluminum Bank, #201-H Goal.
2) Model #00186-234 Outdoor 6' Extended Vertical Post Back-to-Back Backstop with Backboards and Goals, with #234 Fan Aluminum Bank, #201-H Goal.

c. Backstop support shall be designed for mounting goal at any height between 6'-0" and 10'-0".

d. Upright support shall be 3-½" O.D. heavy wall, galvanized steel pipe, capped at top end. Anchor pin for lower end of upright shall be provided to anchor pipe in concrete footing.

e. Backboard shall be supported 3' in front of upright support by dual horizontal support assemblies. Lower support assembly shall be fabricated from 3-½" O.D. heavy wall, galvanized pipe furnished with a heavy, slotted mounting plate which is located directly behind the four goal mounting holes. Upper support assembly shall be fabricated from 2-3/8" O.D. heavy wall, galvanized pipe fabricated with a plated, structural angle for attachment to the top corners of the backboard. Support assemblies shall be clamped to the upright support by means of heavy, galvanized, ductile iron castings with plated hardware.

f. Cast Aluminum backboard (00234-000): Official size (54" x 39") and shape. Bank shall be cast in a permanent mold process from high tensile #319 aluminum. Backboard shall be cast with structural reinforcing ribs on backside with a heavy, 1-½" deep perimeter flange to provide maximum rigidity. Backside of bank shall be furnished with ten (10) tapped holes (3/8" –16) to fit normal mounting attachments without exposed bolt heads on front face of unit. Backboard shall be drilled for a front mount type goal (5" x 5" hole pattern) and compatible with direct mount type support structures.

g. Goal (00201-H00) shall be fabricated from 5/8" diameter cold drawn alloy steel round formed to an 18" inside diameter ring. Inside of ring shall be positioned 6" from face of backboard by heavy, L-shaped, formed steel mounting plate with a 5" x 5" mounting hole centers. Goal shall be rigidly braced by means of a ½" diameter cold drawn alloy steel round formed and welded in position for maximum support. Rim shall be provided with twelve "no-tie" net attachment clips for net attachment. Goal shall be finished in a durable enamel finish. Color of goal to be official orange. Goal shall be furnished complete with a high quality white nylon net and plated mounting hardware.

B. Colors: As selected from manufacturer's full range, as selected by Architect.

2.2 CAST-IN-PLACE CONCRETE

A. Concrete Materials and Properties: Comply with requirements of Section 03 30 01: Cast-in-Place Concrete to provide normal-weight, air-entrained concrete with a minimum 28-day compressive strength of 3,000 psi, 4-inch slump, and one inch maximum size aggregate.

B. Fence Posts and Other Similar Equipment Post Footings: For post heights less than 16-feet in height: Provide per details.

2.3 GENERAL METAL FINISHES

A. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are permitted if they are within one-half of the range of reviewed Samples. Noticeable variations in the same piece are not permitted. Variations in appearance of other components are permitted if they are within the range of reviewed Samples and are assembled or installed to minimize contrast.

B. Baked-Enamel Powder-Coat Finish: Manufacturer's standard, baked, polyester-TGIC, powder-coat finish complying with finish manufacturer's written recommendations for surface preparation, including pretreatment, application, baking, and minimum dry film thickness of 3 to 5 mils.

C. PVC Finish: Manufacturer's standard, UV-stabilized, mold-resistant, slip-resistant, matte-textured, dipped or sprayed-on, PVC-plastisol finish, with flame retardant added, complying with coating manufacturer's written recommendations for pretreatment, application, and minimum dry film thickness of 80 mils.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions for compliance with requirements for Project site clearing, earthwork, surface and sub-grade drainage, and other conditions affecting installation.

B. Do not begin installation before final grading for placing protective surfacing is completed.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Verify locations of playfield perimeter and pathways. Verify that playfield layout and equipment locations comply with requirements for each type and component of equipment.

3.3 INSTALLATION, GENERAL

A. General: Comply with manufacturer's written recommendations, unless more stringent requirements are indicated.

B. Basketball Standards: Excavation shall be a minimum of 3'-6" deep x 2'-0" in diameter. The backstop column support shall be installed, plumbed, and shored with the column positioned in a manner so that a minimum column embedment of 3'-0" occurs. Fill excavation with concrete. A measured height of 10'-0" from top of finish surface to top of ring shall be provided. Maintain shoring in place until concrete is sufficiently hydrated to support backstop column.

C. Post and Footings:

1. Excavation: Hand-excavate holes for posts and footings to dimensions, profile, spacing, and in locations indicated on Drawings, in firm, undisturbed or compacted subgrade soil. Level bearing surfaces with drainage fill, to required elevation.

2. Post Setting: Install mainframe equipment posts in concrete footing. Protect portion of posts above footing from concrete splatter. Install concrete around posts and vibrate or tamp for consolidation. Verify that posts are set plumb or at the correct angle and are aligned and at the correct height and spacing. Brace posts in position during placement and finishing operations until concrete is sufficiently hydrated. Smooth tops of concrete footings, and slope top surface for positive shedding of water.

3.4 ADJUSTING AND PROTECTION

A. Adjust movable playfield equipment components to operate smoothly, easily and quietly, free from binding, warp, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range.

B. Protect the Work of this section until Substantial Completion.

3.5 CLEANING AND CLEANUP

A. After completing playfield equipment installation, inspect components. Remove spots and dirt. Repair damaged finishes to match original finish or replace component.

B. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

END OF SECTION 11680