Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201
More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY

Status: Hold for Additional Information

Appeal ID: 23373	**Project Address:** 2835 N Kerby Ave
Hearing Date: 1/29/20	**Appellant Name:** Stephanie Jackson
Case No.: B-005	**Appellant Phone:** 5039698273
Appeal Type: Building	**Plans Examiner/Inspector:** Steven Freeh
Project Type: commercial	**Stories:** 5 **Occupancy:** I-s, S-2, B, H-3 **Construction Type:** I-A
Building/Business Name: Legacy Emanuel	**Fire Sprinklers:** Yes -
Appeal Involves: Erection of a new structure	**LUR or Permit Application No.:** 17-232759-CO
Plan Submitted Option: pdf [File 1] [File 2] [File 3] [File 4]	**Proposed use:** Hospital

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	703.2
Requires	Fireproofing for horizontal HSS and angle shapes as described in Isolatek and UL documents.
Code Modification or Alternate Requested	See attached letter regarding the fireproofing thickness from Isolatek and UL.
Proposed Design	Attached letter provides approved thickness for the angle per manufacturer.
Reason for alternative	The horizontal tubesteel member fall outside of the scope of the UL directory designs. Please see attached documents from Isolatek and UL.

APPEAL DECISION

Alternate fire rated angles and horizontal HSS beams with engineering analysis: Hold for additional information.
Appellant may contact John Butler (503 823-7339) with questions.

Additional information is submitted as a no fee reconsideration, following the same submittal process and using the same appeals form as the original appeal. Indicate at the beginning of the appeal form that you are filing a reconsideration and include the original assigned Appeal ID number. The reconsideration will receive a new appeal number.
Include the original attachments and appeal language. Provide new text with only that information that is specific to the reconsideration in a separate paragraph(s) clearly identified as "Reconsideration Text" with any new attachments also referenced. No additional fee is required.

LIFE SAFETY CHECKSHEET

Review Date: November 25, 2019

Application #: **17-232759-DFS-07-CO**
IVR #: **4476854**

To:	APPLICANT	**RILYN LEWCHUK** **ANDERSEN CONSTRUCTION** **6712 N CUTTER CIRCLE** **PORTLAND, OR 97217**	Work: Home: Email:	(971) 409-2917 (503) - RLEWCHUK@ANDERSEN-CONST.COM
From:	BDS LIFE SAFETY PLANS EXAMINER	**STEVEN FREEH**	Phone: Email:	(503) 823-7544 Steven.Freeh@portlandoregon.gov
cc:	OWNER	**LEGACY EMANUEL HOSPITAL & HEALTH CENTER** **1919 NW LOVEJOY ST** **PORTLAND, OR 97209-1503**		

PROJECT INFORMATION

Street Address:	**2835 N KERBY AVE**
Description of Work:	**DFS 07 - Applied fireproofing**

The following assumptions were made when reviewing your project:

Code Edition	Occupancy group	Construction Type	Building Area	Stories	Sprinklers	Alarms
2014 OSSC	**I-2 / S-2 / B / H-3**	**I-A**	**296,900 SF**	**5**	**Yes**	**Yes**

PLAN REVIEW

Based on the plans submitted, the items listed below appear to be missing or not in conformance with the Oregon Structural Specialty Code (OSSC), ICC/ANSI A117.1 (ANSI), the Oregon Energy Efficiency Specialty Code (OEESC), and/or other City requirements.

Item #	Location on plans	Code Section	Clarification / Correction Required
1		FYI	General: Please note that additional review comments could result pending review of the requested information.
2	-	107.2.1	Graphics: a. Please provide a full size set of plans for review. b. Please graphically indicate the difference between the 1-1/2 -hour, 2-hour and 3-hour beams and columns on the plans in some way other than the monochromatic shading. We do not accept colored plans for our record permit sets, however another way to indicate the difference would be to add text indicating the rating.
3	Spec Section 078100,	Table 601	Fire-Resistance Rating for Building Elements: Please provide revised plans under 17-232759-CO that amend the fire-resistance rating at the primary structural frame to include the 2-hour fire-resistance rating reduction being proposed by this submittal for the primary structural frame supporting roofs.

4	Spec Section 078100, S1.1A S1.4A, S1.4C, S1.5A, S1.5B,	703.2	<u>Spray Applied Fireproofing Assemblies:</u> a. Please provide an approved building code appeal for the L5x5x3/8" angle and horizontal HSS 14x6x3/8" as neither shape is defined in UL assembly S721 and we are not aware of any test results for horizontal tube steel. Building code appeals for these situations typically include an analysis or report from a fire protection engineer. b. Please indicate a 3-hour fire-resistance rating at the HSS 6x6x1/4 columns on Level 1, as by definition columns are part of the primary structural frame.

End of Checksheet

To respond to this checksheet, come to the Bureau of Development Services located at 1900 SW Fourth Ave. The Development Service Center (1st floor) and Permitting Services (2nd floor) are open Monday through Friday from 8:00 a.m. to 3:00 p.m. (close at noon on Thursday). Please update all sets of submitted drawings by either replacing the original sheets with new sheets, or editing the originally submitted sheets. You can review "How to Update Your Plans in Response to a Checksheet" at http://www.portlandoregon.gov/bds/article/93028 Visit the BDS website for more helpful information and a current listing of services available in the Development Services Center.

Please complete the attached Checksheet Response Form and include it with your re-submittal.

If you have specific questions concerning this Checksheet, please call me at the phone number listed above. To check the status of your project, go to https://www.portlandmaps.com/advanced/?action=permits#basic. Or, you may request the status to be faxed to you by calling 503-823-7000 and selecting option 4.

You may receive separate Checksheets from other City agencies that will require separate responses.

RECHECK FEE: Please note that plan review fees for Life Safety, Structural, Site Development and Planning and Zoning will cover the initial review and up to two checksheets and the reviews of the applicant's responses to those checksheets. All additional checksheets and reviews of applicant responses will be charged an additional fee per checksheet.

Appeals: Pursuant to City Code Chapters 24.10, 25.07, 26.03, 27.02, and 28.03, you may appeal any code provision cited in this Checksheet to the BDS Administrative Board of Appeal within 180 calendar days of the review date. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appeals, call (503) 823-7300 or come in to the Development Services Center. Permit application expiration will not be extended pending resolution of any administrative appeal.

Life Safety Checksheet Response

Permit #: 17-232759-DFS-07-CO **Date: __12/18/2019_____**

Customer name and phone number: _Mike Walker 503-684-5533_____

Note: In the spaces below, please provide specific information concerning the changes that you have made in response to the checksheet. Note the checksheet item number, your response or a description of the revision, and the location of the change on the plans (i.e. page number and/or detail number). Use as many lines as needed. *If the item is not in response to a checksheet, write **"Applicant"** in the column labeled "Checksheet item number."*

Checksheet item number	Description of changes, corrections, additions, etc.	Location on plans
2	Revised plans provided.	
3	Plans show columns (i.e. sheet S1.4A&B) columns support roof reduced to two hour rating as well as sheet S1.5A&B showing primary structural beams reduced to 2 hour.	S1.4A&B S1.5A&B
4.a	These members are not part of S721 design, however the submittal includes a letter from the manufacturer starting how they got to thickness for the HSS member to be rated in question. Attached again for reference. Submittal includes approved thickness from manufacturer for the L5x5x3/8. Attached is letter from manufacturer regarding misc. shape.	Attached references
4.b	HSS 6x6x1/4 two hour rating occurs at four locations between gridline E&F and 5.5&7 supporting roof structure shown on sheet S1.2A. Reduced to two hour as supporting roof only.	S1.2A

Plan Bin Location: 59 CO

ISOLATEK® INTERNATIONAL
Corporate Headquarters

Isolatek International
41 Furnace Street
Stanhope, NJ 07874
Telephone: 973.347.1200

April 17, 2019

Mr. Mike Walker
Performance Contracting, Inc.
8015 SW Hunziker Road
Tigard, OR 97223

Re: Legacy Emmanuel West Core and Shell

Dear Mr. Walker:

This is in regard to the proposed application of CAFCO® 300 Spray-Applied Fire Resistive Material (SFRM) applied to structural steel to achieve the desired hourly fire resistive rating for the above referenced project.

The fire resistance performance of hollow tube steel sections acting as load bearing beams has not been evaluated by Underwriters Laboratories, Inc. (UL) in accordance with ASTM E119/UL 263, "*Fire Tests of Building Construction and Materials*".

Please be advised that it is standard industry practice to determine IFRM thicknesses based on calculated A/P ratios and W/D ratios. A/P and W/D Ratios are calculated by dividing the weight, W, of the steel section in lbs./ft. (or the cross section area, A, of the steel member) with the Perimeter, D (or P), of protection at the interface of the protection material through which heat is transferred to the steel in inches. The formulas to determine the required thickness based off the W/D and A/P are located within the UL directory designs.

Also note Underwriters Laboratories (UL) has not tested miscellaneous shapes such as steel plates. It is typical industry practice to propose to the authority having jurisdiction to utilize a conservative thickness based on a UL column design (X or Y-Series). The thickness would be derived from the Weight to Heated Perimeter (W/D) ratio of the miscellaneous shape (*i.e.* rebar, flat plates, and angles). Thickness is based on the lesser of the two thicknesses between alternate formula and the W/D ratios listed in the table.

It is our understanding that the listed steel member requires fire protection. However, since they are horizontal configured, load bearing tube steel members supporting a roof deck, they fall outside the scope of the UL Directory designs. Therefore, we propose the following thickness in order to achieve the required fire resistive rating. See table below.

Steel Size	W/D or A/P	Thickness	Rating	UL Design Basis
HSS 14x6x3/8" Load Bearing Roof Beam	0.36	15/16" mils	1.5 hr.	X790

**Thickness derived from column thickness with factor of safety.*

Note that a column design is a worst case thickness; determined from a 4 side exposure rather than a 3 side exposure. A column test does not provide the heat sink properties of a concrete floor assembly or roof assembly.

Based on alternative method of testing in accordance with ASTM E119 item # 26 Conditions of Acceptance, the column thicknesses will provide a limiting average steel temperature of 1000 °F or a limiting individual steel temperature of 1200 °F at any single measured point. The results of the testing are within the UL Designs and are listed as thicknesses provided for the specific member sizes.

It is our opinion that the fire resistive rating shall be achieved provided that the CAFCO SFRM is applied in accordance with the written application and installation instructions, the method proposed, and UL Guidelines.

The proposed fire resistive thicknesses contained herein are being provided based upon the dimensions given by the Project Team to assist the architect, owner and authority having jurisdiction to determine a suitable protection method. This proposal must be reviewed with the Authority Having Jurisdiction for final acceptance.

We trust this information is of assistance. Should you have any questions, please feel free to contact the undersigned at 973-347-1200.

Sincerely,

Nicholas Federici
Applications & Development Engineer
CAFCO® Fire Protection Products

NF
Cc: – T. Wildeboer - Isolatek International

ISOLATEK® INTERNATIONAL
Corporate Headquarters

Isolatek International
41 Furnace Street
Stanhope, NJ 07874
Telephone: 973.347.1200

December 18, 2019

Mr. Mike Walker
Performance Contracting, Inc.
2455 NW Nicolai St, Suite A
Portland, OR 97210

Re: Legacy Emanuel

Dear Mr. Walker:

This is in regard to the application of CAFCO® 300 Spray-Applied Fire Resistive Material (SFRM) applied to structural steel to achieve the desired hourly fire resistive rating for the above referenced project.

Please be advised that it is standard industry practice to determine SFRM thicknesses based on calculated A/P ratios and W/D ratios. A/P and W/D Ratios are calculated by dividing the weight, W, of the steel section in lbs./ft. (or the cross-section area, A, of the steel member) with the Perimeter, D (or P), of protection at the interface of the protection material through which heat is transferred to the steel in inches. Please note that the A/P ratio equation for steel columns is provided in the Underwriters Laboratories, Inc. (UL) Directory.

Also note Underwriters Laboratories (UL) has not tested miscellaneous shapes such as steel angles and c-channels. It is typical industry practice to propose to the authority having jurisdiction to utilize a conservative thickness based on a UL column design (X or Y-Series). The thickness would be derived from the Weight to Heated Perimeter (W/D) ratio of the miscellaneous shape (*i.e.* rebar, flat plates, and angles).

It is our understanding that the listed steel member requires fire protection. The following table provides the tested thickness in accordance with UL Designs basis listed. See table below.

Steel Size	Thickness	Rating	UL Design Basis
L5x5x3/8”	15/16”	1.5 hr.	X790

It is our opinion that the fire resistive rating shall be achieved provided that the CAFCO SFRMs are applied in accordance with the written application and installation instructions, the method proposed, and UL Guidelines.

The proposed fire resistive thicknesses contained herein are being provided based upon the dimensions given by the Project Team to assist the architect, owner and authority having jurisdiction to determine a suitable protection method. This proposal must be reviewed with the Authority Having Jurisdiction for final acceptance.

We trust this information is of assistance. Should you have any questions, please feel free to contact the undersigned at 973-347-1200.

Sincerely,

Nicholas Federici
Applications & Development Engineer
CAFCO® Fire Protection Products

NF
Cc: T. Wildeboer - Isolatek International

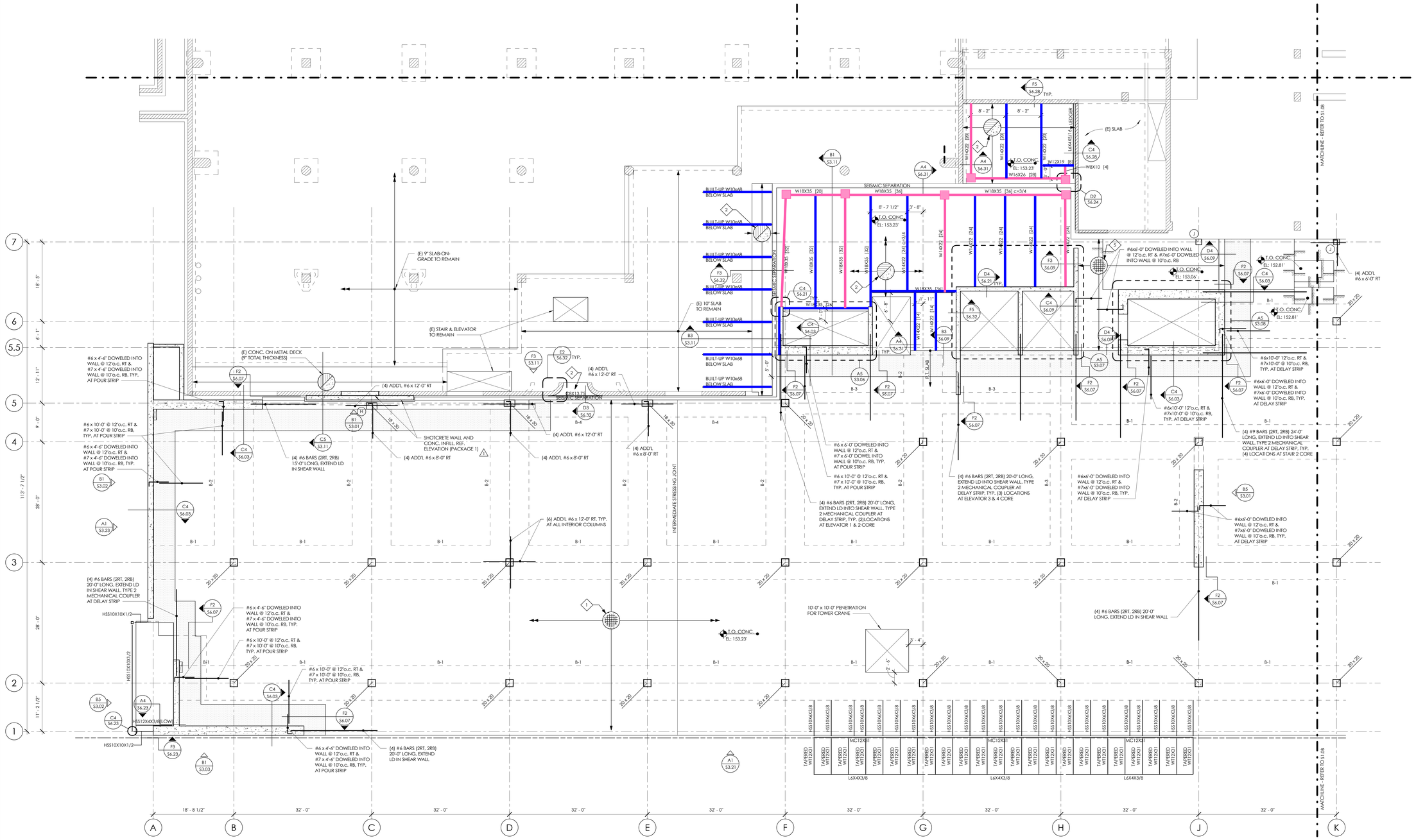
- UL D902 - 2Hr Floor Deck - No Fireproofing Required
- UL N759 - 2Hr Floor Beams
- W10 x 068 - 9/16"
- W12 x 019 - 15/16"
- W14 x 022 - 15/16"
- W18 x 035 - 7/8"
- UL N759 - 3Hr Floor Beams
- W08 x 10 - 1 -3/4"
- W14 x 022 - 1 1/2"
- W16 x 026 - 1 1/2"
- W18 x 035 - 1 3/8"
- .UL X790 3Hr Columns
- HSS 08x08x3/8 - 1 9/16"
- W10 x 077 -1 7/16"

KEYED NOTES:

1. 10" BONDED POST TENSIONED (P.T.) CONCRETE SLAB W/ #7 @ 10"o.c. EACH WAY BOTTOM AND #6 @ 12"o.c. EACH WAY TOP. REFERENCE PLAN FOR ADDITIONAL REINFORCING.
   PROVIDE LEVELING TOPPING AS NECESSARY TO ACHIEVE FLATNESS AND LEVELNESS CRITERIA; MAXIMUM ANTICIPATED DEFLECTION AT MID-BAY = 1".
2. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING AND #4 @ 12"o.c. EA. WAY.
3. 6'-0" x 6'-0" X 5 1/2" CONCRETE SLAB CENTERED ON COLUMN BELOW.
4. REMOVE (E) CONCRETE CURB AND INFILL (E) OPENING W/ 2" 18 GA METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY.
5. 14" MILD REINFORCED SLAB WITH #6 @ 10"o.c. EACH WAY TOP AND BOTTOM.

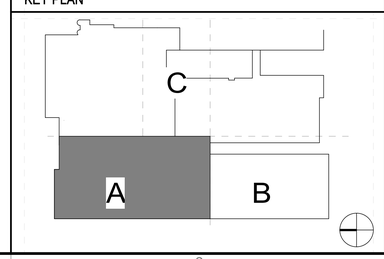
PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
4. VERIFY ALL MECHANICAL EQUIPMENT, DUCTWORK, OPENING LOCATIONS, AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. FOR SLEEVES, BLOCKOUTS, AND OTHER ITEMS TO BE COORDINATED, REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.
6. FOR CONDUIT EMBEDDED IN SLAB, REFER TO B1 / S6.11
7. INDICATES CONCRETE WALL.
8. INDICATES CONCRETE WALL OR COLUMN BELOW, U.O.N.
9. T.O. SLAB EL: XXX.XX — INDICATES TOP OF CONCRETE STRUCTURAL SLAB ELEVATION.
10. X x X — INDICATES COLUMN TYPE, REFER TO D3 / S6.01
11. X — INDICATES STUD RAIL, REFER TO E4 / S6.02
12. RT — INDICATES P.T. SLAB TOP REINFORCING; PROVIDE STANDARD HOOK FOR TOP BARS AT SLAB EDGES.
13. RB — INDICATES P.T. SLAB BOTTOM REINFORCING IN ADDXITION TO UNIFORM MAT NOTED ON PLAN.
14. INDICATES STEP IN STRUCTURAL SLAB.
15. B-X — INDICATES CONCRETE BEAM, REFER TO C2/S6.07
16. INDICATES A DELAY STRIP, SEE DETAIL C4/S6.03
15. 'XX' x 'YY' — INDICATES ZONE OF THICKENED SLAB
    XX INDICATES WIDTH OF ZONE
    YY INDICATES TOTAL DEPTH OF SLAB AT THICKENED ZONE
16. B-X — INDICATES CONCRETE BEAM, REFERENCEX/XXXX
17. B-X — INDICATES CONCRETE BEAM, REFER TO C2/S6.07
18. INDICATES A DELAY STRIP, SEE DETAIL C4/S6.03



A1 FRAMING PLAN LOWER LEVEL - SECTOR A
1/8" = 1'-0"

KEY PLAN



nbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER: KPFF CONSULTING ENGINEERS, 111 SW FIFTH AVE #2500, PORTLAND, OR 97204

LANDSCAPE ARCHITECT: MAYER/REED, INC., 319 SW WASHINGTON ST, SUITE 820, PORTLAND, OR 97204

STRUCTURAL ENGINEER: CATENA CONSULTING ENGINEERS, 1500 NE IRVING SREET, SUITE 412, PORTLAND, OR 97232

MECHANICAL & PLUMBING ENGINEER: MAZZETTI + CDI, 15203 36TH AVE W #200, LYNNWOOD, WA 98036

ELECTRICAL & COMMUNICATIONS & SECURITY ENGINEER: STANTEC CONSULTING SERVICES, 733 SW OAK ST, SUITE 200, PORTLAND, OR 97205

ACOUSTICAL ENGINEER: STANTEC CONSULTING SERVICES, 4100 194th ST SW, SUITE 400, LYNNWOOD, WA 98036

BUILDING ENVELOPE: MORRISON HERSHFIELD, 10900 NE 8TH ST, BELLEVUE, WA 98004

ELEVATORS: LERCH BATES, INC., 19515 N CREEK PARKWAY SUITE 304, BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH — LEGACY EMANUEL MEDICAL CENTER, PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE: CONSTRUCTION DOCUMENTS

STRUCTURAL — REGISTERED PROFESSIONAL ENGINEER — 24798 — STATE OF OREGON — BRIAN L. THOMSON — 2018.02.27 — EXPIRES: 06/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 2/20/18

REVISIONS

MARK	DATE	DESCRIPTION
2	2018.03.02	PKG2 PERMIT
1	2018.02.20	Change Proposal

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE: FRAMING PLAN LOWER LEVEL SECTOR A

SHEET NUMBER: S1.0A

2/27/2018 5:28:37 PM
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UL D902 - 2Hr Floor Deck - No Fireproofing Required
UL N759 - 2Hr Floor Beams
W10 x 068 - 9/16"
W12 x 019 - 15/16"
W14 x 022 - 15/16"
W18 x 035 - 7/8"
UL N759 - 3Hr Floor Beams
W14 x 022 - 1 1/2"
W16 x 026 - 1 1/2"
W18 x 035 - 1 3/8"
UL X790 2Hr Columns
HSS 06x06x1/4 - 1 3/8"
UL X790 3Hr Columns
HSS 08x08x3/8 - 1 9/16"
HSS 08x08x5/16 - 1 3/4"
HSS 10x08x5/8 - 1 1/8"
HSS 10x10x5/8 - 1 1/8"
HSS 12x08x5/8 - 1 1/8"
W10 x 077 -1 7/16"

KEYED NOTES:

1. 13" BONDED POST TENSIONED (P.T.) CONCRETE SLAB W/ #7 @ 10"o.c. EACH WAY BOTTOM AND #6 @ 10"o.c. EACH WAY TOP. REFERENCE PLAN FOR ADDITIONAL REINFORCING.
   PROVIDE LEVELING TOPPING AS NECESSARY TO ACHIEVE FLATNESS AND LEVELNESS CRITERIA: MAXIMUM ANTICIPATED DEFLECTION AT MID-BAY = 1".
2. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING AND #4 @ 12"o.c. EA. WAY.
3. 6'-0" x 6'-0" X 5 1/2" CONCRETE SLAB W/ (7) #6 EACH WAY W/ STD HOOKS EACH END, INSTALL SLAB ABOVE (E) SLAB CENTERED ON (E) COLUMN.
4. 14" BONDED POST TENSIONED (P.T.) CONCRETE SLAB W/ #7 @ 10"o.c. EACH WAY BOTTOM AND #6 @ 10"o.c. EACH WAY TOP. REFERENCE PLAN FOR ADDITIONAL REINFORCING.
   PROVIDE LEVELING TOPPING AS NECESSARY TO ACHIEVE FLATNESS AND LEVELNESS CRITERIA: MAXIMUM ANTICIPATED DEFLECTION AT MID-BAY = 1".
5. INFILL (E) OPENING W/ 2" 18 GA.METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY. ORIENT DECK EAST-WEST, REF. C3/S6.32.
6. 12" MILD REINFORCED SLAB WITH #6 @ 10"o.c. EACH WAY TOP AND BOTTOM.

PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
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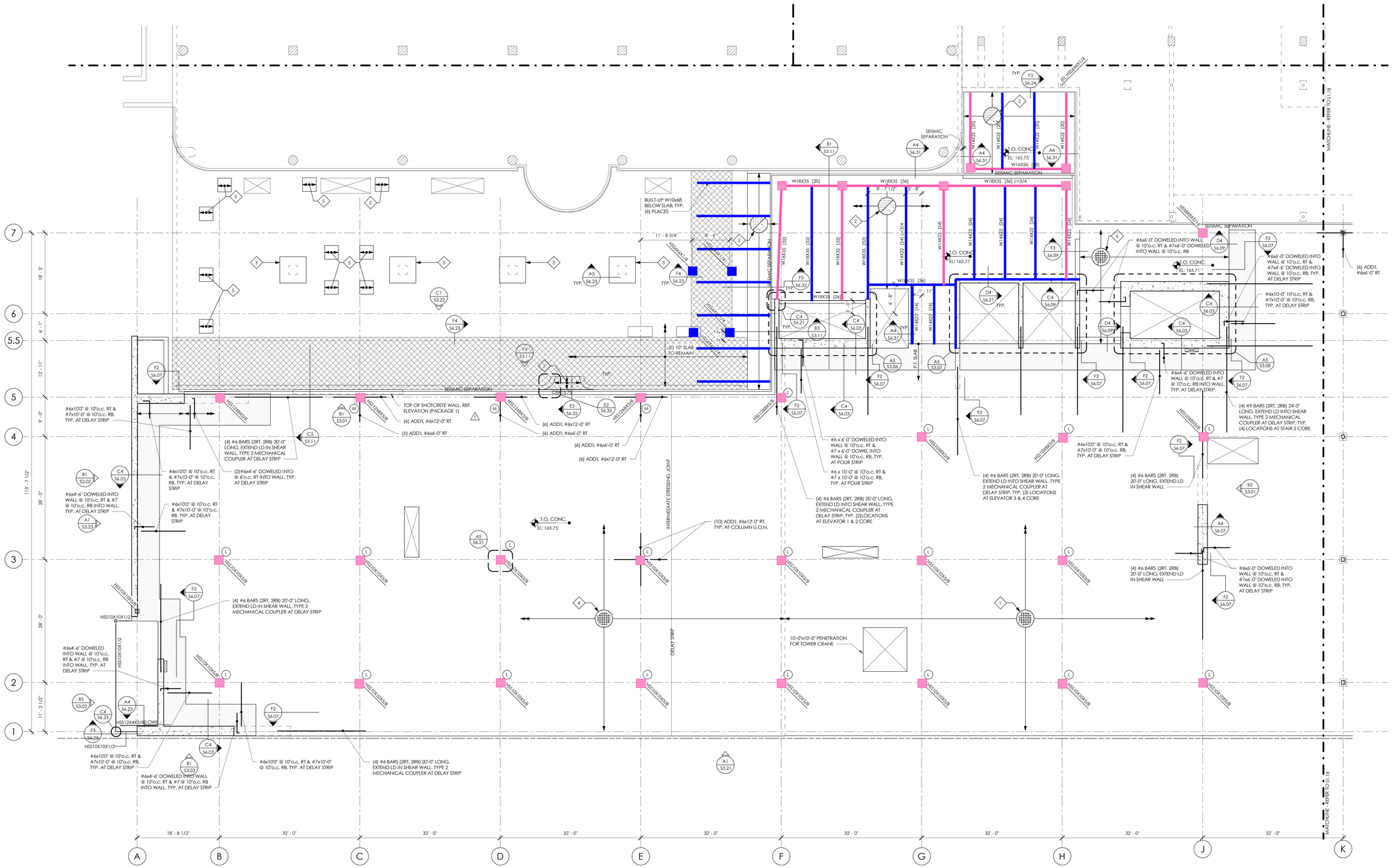
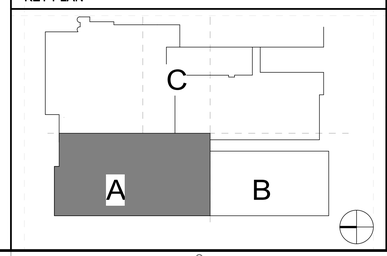
6. FOR CONDUIT EMBEDDED IN SLAB, REFER TO B1 / S6.11
7. INDICATES CONCRETE WALL.
8. INDICATES CONCRETE WALL OR COLUMN BELOW, U.O.N.
9. T.O. SLAB / EL: XXX.XX — INDICATES TOP OF CONCRETE STRUCTURAL SLAB ELEVATION.
10. X / X.X — INDICATES COLUMN TYPE, REFER TO D3 / S6.01
11. X — INDICATES STUD RAIL, REFER TO E4 / S6.02
12. RT — INDICATES P.T. SLAB TOP REINFORCING; PROVIDE STANDARD HOOK FOR TOP BARS AT SLAB EDGES.
13. RB — INDICATES P.T. SLAB BOTTOM REINFORCING IN ADDITION TO UNIFORM MAT NOTED ON PLAN.
14. INDICATES STEP IN STRUCTURAL SLAB.
15. 'XX' x 'YY' — INDICATES ZONE OF THICKENED SLAB
    XX INDICATES WIDTH OF ZONE
    YY INDICATES TOTAL DEPTH OF SLAB AT THICKENED ZONE
16. B-X — INDICATES CONCRETE BEAM, REFERENCE X/XXXX
17. INDICATES A DELAY STRIP, SEE DETAIL C4/S6.03
18. INDICATES 3" MAX. THICK LEVELING COMPOUND (125 PCF MAX.)



A1 FRAMING PLAN LEVEL 1 - SECTOR A
1/8" = 1'-0"

KEY PLAN



nbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2550
PORTLAND, OR 97204

LANDSCAPE ARCHITECT:
MAYER/REED, INC.
319 SW WASHINGTON ST, SUITE 820
PORTLAND, OR 97204

STRUCTURAL ENGINEER:
CATENA CONSULTING ENGINEERS
1500 NE IRVING SREET, SUITE 412
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ACOUSTICAL ENGINEER:
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4100 194th ST SW, SUITE 400
LYNNWOOD, WA 98036

BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL ENGINEER PROFESSIONAL STAMP — 2018.02.27 — EXPIRES: 06/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION
1	2018.02.20	Change Proposal

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 1 SECTOR A

SHEET NUMBER
S1.1A

2/27/2018 5:28:39 PM
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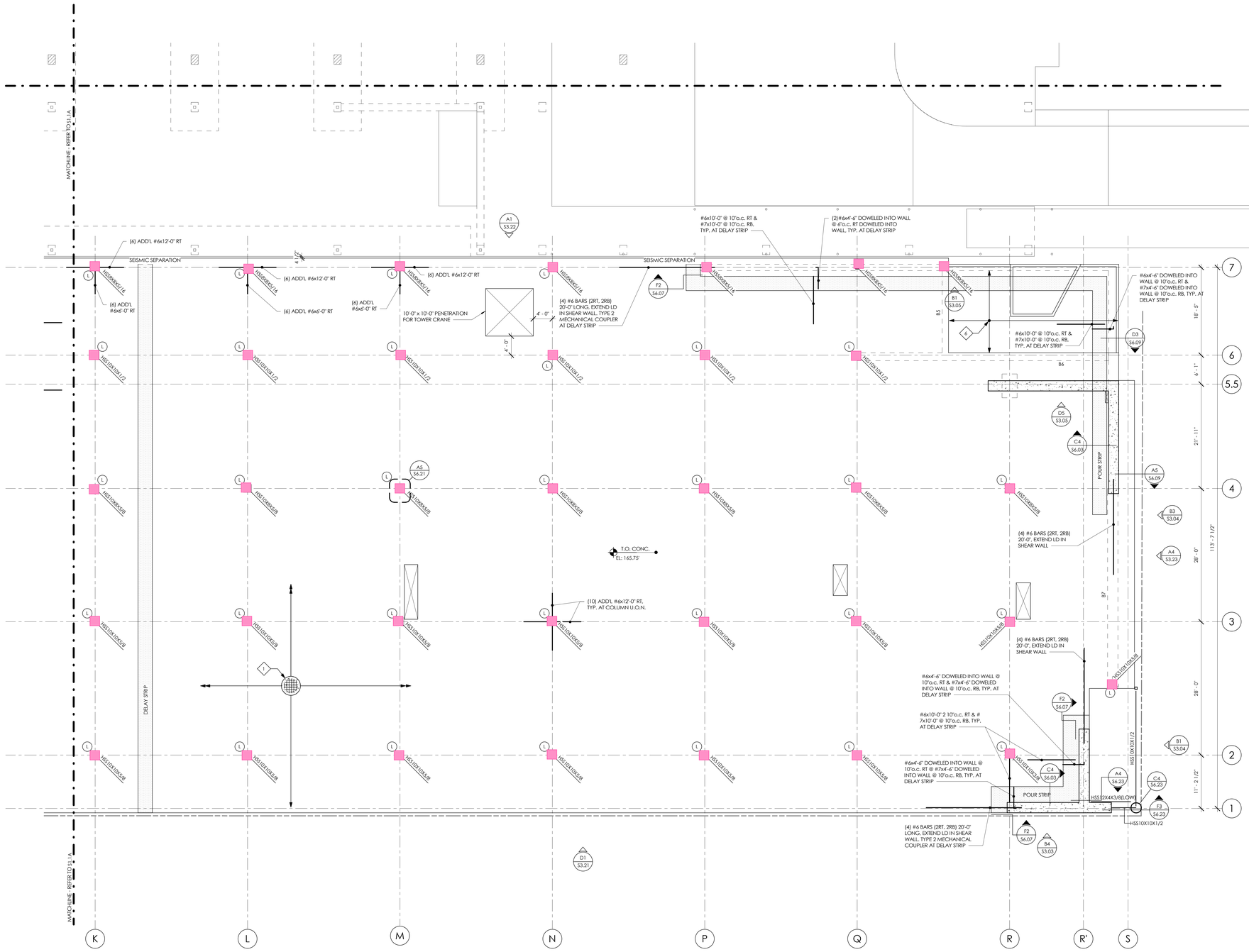
- .UL X790 3Hr Columns
- HSS 08x08x5/16 - 1 3/4"
- HSS 10x08x5/8 - 1 1/8"
- HSS 10x10x1/2 - 1 3/8"
- HSS 10x10x3/8 - 1 9/16"
- HSS 10x10x5/8 - 1 1/8"

KEYED NOTES:

1. 13" BONDED POST TENSIONED (P.T.) CONCRETE SLAB W/ #7 @ 10"o.c. EACH WAY BOTTOM AND #6 @ 10"o.c. EACH WAY TOP. REFERENCE PLAN FOR ADDITIONAL REINFORCING.
   PROVIDE LEVELING TOPPING AS NECESSARY TO ACHIEVE FLATNESS AND LEVELNESS CRITERIA; MAXIMUM ANTICIPATED DEFLECTION AT MID-BAY = 1".
2. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING AND #4 @ 12"o.c. EA. WAY.
3. 6'-0" x 6'-0" X 5 1/2" CONCRETE SLAB W/ (7) #6 EACH WAY W/ STD HOOKS EACH END, INSTALL SLAB ABOVE (E) SLAB CENTERED ON (E) COLUMN.
4. 14" BONDED POST TENSIONED (P.T.) CONCRETE SLAB W/ #7 @ 10"o.c. EACH WAY BOTTOM AND #6 @ 10"o.c. EACH WAY TOP. REFERENCE PLAN FOR ADDITIONAL REINFORCING.
   PROVIDE LEVELING TOPPING AS NECESSARY TO ACHIEVE FLATNESS AND LEVELNESS CRITERIA; MAXIMUM ANTICIPATED DEFLECTION AT MID-BAY = 1".
5. INFILL (E) OPENING W/ 2" 18 GA METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY. ORIENT DECK EAST-WEST, REF. C3/S6.32.
6. 12" MILD REINFORCED SLAB WITH #6 @ 10"o.c. EACH WAY TOP AND BOTTOM.

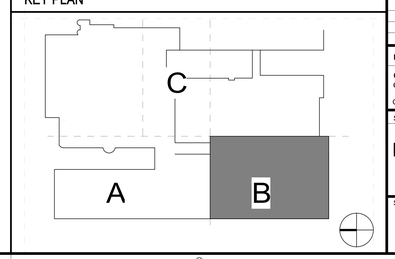
PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
4. VERIFY ALL MECHANICAL EQUIPMENT, DUCTWORK, OPENING LOCATIONS, AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. FOR SLEEVES, BLOCKOUTS, AND OTHER ITEMS TO BE COORDINATED, REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.
6. FOR CONDUIT EMBEDDED IN SLAB, REFER TO B1/S6.11
7. INDICATES CONCRETE WALL.
8. INDICATES CONCRETE WALL OR COLUMN BELOW, U.O.N.
9. T.O. SLAB / EL: XXX.XX — INDICATES TOP OF CONCRETE STRUCTURAL SLAB ELEVATION.
10. X.X.X — INDICATES COLUMN TYPE, REFER TO D3/S6.01
11. X — INDICATES STUD RAIL, REFER TO E4/S6.02
12. RT — INDICATES P.T. SLAB TOP REINFORCING; PROVIDE STANDARD HOOK FOR TOP BARS AT SLAB EDGES.
13. RB — INDICATES P.T. SLAB BOTTOM REINFORCING IN ADDITION TO UNIFORM MAT NOTED ON PLAN.
14. INDICATES STEP IN STRUCTURAL SLAB.
15. 'XX' x 'YY' — INDICATES ZONE OF THICKENED SLAB
    XX INDICATES WIDTH OF ZONE
    YY INDICATES TOTAL DEPTH OF SLAB AT THICKENED ZONE
16. B-X — INDICATES CONCRETE BEAM, REFERENCE X/XXXX
17. INDICATES A DELAY STRIP, SEE DETAIL C4/S6.03
18. INDICATES 3" MAX. THICK LEVELING COMPOUND (125 PCF MAX.)



A1 FRAMING PLAN LEVEL 1 - SECTOR B
1/8" = 1'-0"

KEY PLAN



nbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2500
PORTLAND, OR 97204

LANDSCAPE ARCHITECT:
MAYER/REED, INC.
319 SW WASHINGTON ST, SUITE 820
PORTLAND, OR 97204

STRUCTURAL ENGINEER:
CATENA CONSULTING ENGINEERS
1500 NE IRVING SREET, SUITE 412
PORTLAND, OR 97232

MECHANICAL & PLUMBING ENGINEER:
MAZZETTI + CDI
15033 36TH AVE W #200
LYNNWOOD, WA 98036

ELECTRICAL & COMMUNICATIONS & SECURITY ENGINEER:
STANTEC CONSULTING SERVICES
733 SW OAK ST, SUITE 200
PORTLAND, OR 97205

ACOUSTICAL ENGINEER:
STANTEC CONSULTING SERVICES
4100 194th ST SW, SUITE 400
LYNNWOOD, WA 98036

BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL STANDARD PROFESSIONAL ENGINEER OREGON JOSHUA THOMSON 2018.02.27
EXPIRES: 03/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 1 SECTOR B

SHEET NUMBER
S1.1B

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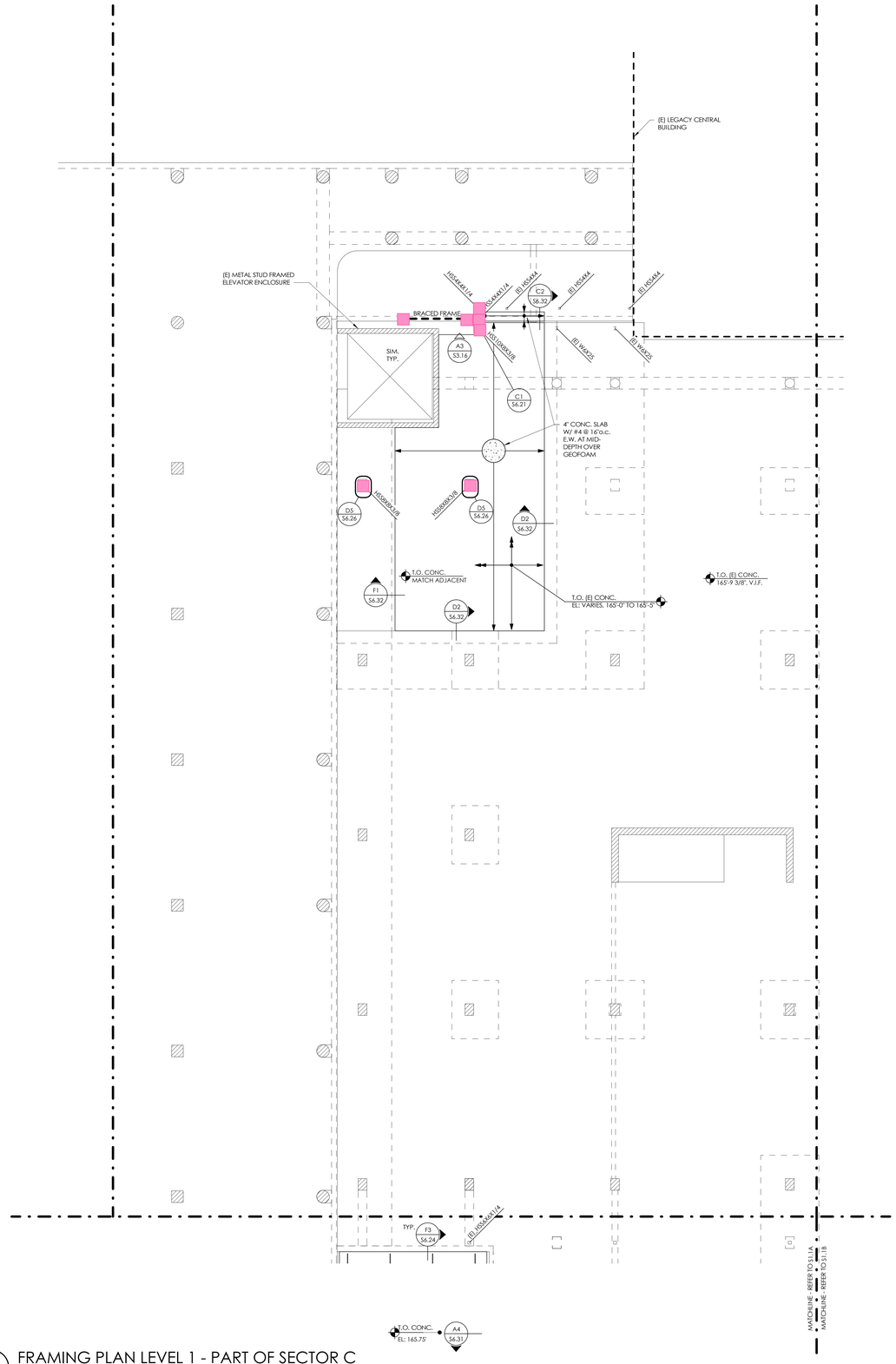
PLAN NOTES:

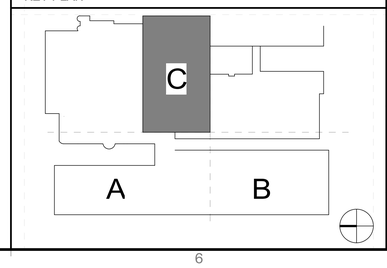
1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
4. VERIFY ALL MECHANICAL EQUIPMENT, DUCTWORK, OPENING LOCATIONS, AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.

- .UL X790 3Hr Columns
- HSS 04x04x1/4 - 2 1/16"
- HSS 08x08x3/8 - 1 9/16"
- HSS 10x08x3/8 - 1 9/16"
- W16 x 089 - 1 1/2"



B2 FRAMING PLAN LEVEL 1 - PART OF SECTOR C
1/8" = 1'-0"

KEY PLAN



nbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2500
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LANDSCAPE ARCHITECT:
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ACOUSTICAL ENGINEER:
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4100 194th ST SW, SUITE 400
LYNNWOOD, WA 98036

BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH

LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL
REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER J. HUDSON
STATE OF WASHINGTON
2018.02.27
EXPIRES: 09/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE

FRAMING PLAN LEVEL 1 SECTOR C

SHEET NUMBER

S1.1C

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- UL D759 - 2Hr Floor Deck - 3/8"
- UL D902 - 2Hr Floor Deck - No Fireproofing Required
- UL N759 - 2Hr Floor Beams
- W12 x 022 - 7/8"
- W14 x 022 - 15/16"
- W14 x 030 - 7/8"
- W16 x 026 - 15/16"
- W16 x 036 - 7/8"
- W16 x 040 - 13/16"
- W16 x 050 - 11/16"
- W16 x 057 - 11/16"
- W16 x 067 - 11/16"
- W18 x 035 - 7/8"
- W21 x 050 - 3/4"
- W21 x 073 - 5/8"
- W24 x 055 - 3/4"
- W24 x 076 - 11/16"
- W27 x 084 - 11/16"
- UL N759 - 3Hr Floor Beams
- W16 x 026 - 1 1/2"
- W16 x 040 - 1 1/4"
- W16 x 050 - 1 1/8"
- W18 x 035 - 1 3/8"
- W21 x 044 - 1 1/4"
- W21 x 050 - 1 3/16"
- W21 x 073 - 1"
- W24 x 068 - 1 1/8"
- W24 x 076 - 1 1/16"
- W27 x 084 - 1 1/16"
- W27 x 094 - 1"
- W30 x 090 - 1 1/16"
- .UL P723 1.5Hr Roof Deck - 1 3/16"
- .UL S721 1.5Hr Roof Beams
- W10 x 12 - 15/16"
- UL S721 2Hr Roof Beams
- W10 x 12 - 1 1/4"
- W18 x 035 - 1"
- W21 x 044 - 15/16"
- .UL X790 3Hr Columns
- HSS 06x06x3/8 - 1 9/16"
- HSS 08x08x3/8 - 1 9/16"
- HSS 08x08x5/16 - 1 3/4"
- HSS 10x08x5/8 - 1 1/8"
- HSS 10x10x3/8 - 1 9/16"
- HSS 10x10x5/8 - 1 1/8"
- HSS 12x08x5/8 - 1 1/8"
- W10 x 077 -1 7/16"
- W27 x 161 - 1 1/4"

KEYED NOTES:

1. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY; PROVIDE ADDITIONAL #5 x 12'-0" @ 12"o.c. CENTERED OVER GIRDERS.
2. PROVIDE 1" PLATE ASSEMBLY ATOP WF BEAM, REF. B5/S6.23.
3. 1 1/2" 18GA. COMPOSITE METAL DECK WITH 3" CONCRETE TOPPING WITH #4 @ 12"o.c. EACH WAY. PROVIDE ADDITIONAL #5 @ 12"o.c. CENTERED OVER GIRDERS.
4. L3x3x1/4 LATERAL BRACE AT 1/3 GIRDER SPAN. REF. B5/S6.24. SOLID CIRCLE INDICATES BRACE END @ B.O. BEAM
5. 3" 18 GA. TYPE 'W3' COMPOSITE METAL DECK W/ 3" CONC. TOPPING W/ #4 @ 12"o.c., EACH WAY
6. 2" 18 GA. TYPE W2 METAL DECK W/ 3 1/2" CONCRETE TOPPING AND #4 @ 12"o.c. EACH WAY
7. 10'-0" x 10'-0" BLOCKOUT FOR TOWER CRANE. INFILL AS SHOWN ON PLAN WITH TYPICAL SLAB ON METAL DECK.

PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
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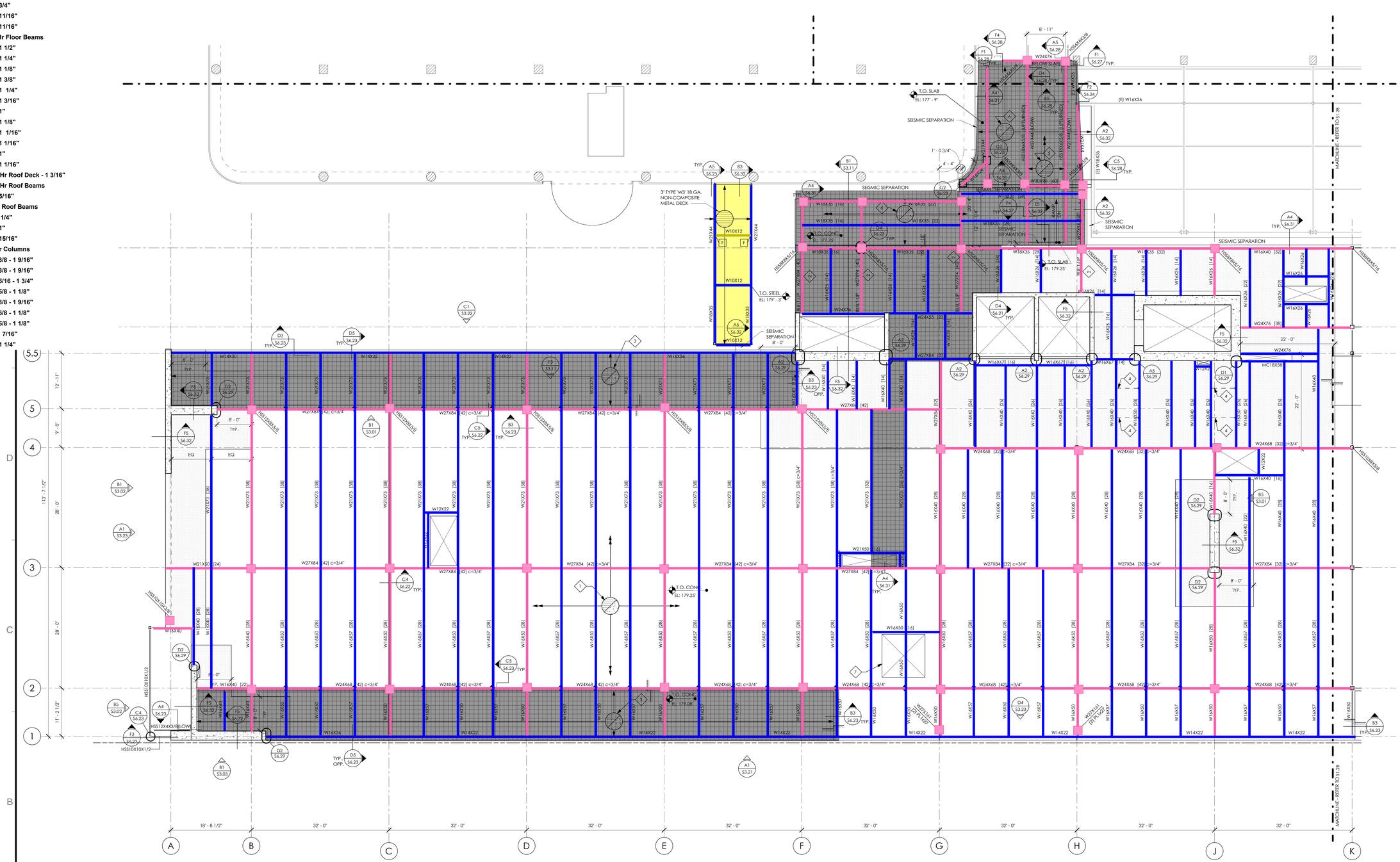
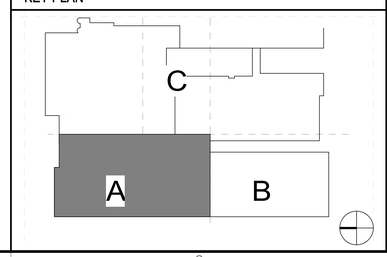
4. VERIFY MECHANICAL EQUIPMENT & DUCTWORK LOCATIONS, OPENINGS, AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. REFER TO METAL DECK DETAILS FOR DECK REINFORCING AT OPENINGS; NOT ALL OPENINGS ARE NECESSARILY SHOWN; REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, & PLUMBING DRAWINGS.
6. T.O. SLAB XXX.XX — INDICATES TOP OF CONCRETE FILL ELEVATION.
7. INDICATES STEP IN ELEVATION, U.O.N. REFER TO D3/S6.31
8. REFER TO DETAIL C5/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTION DETAIL.
9. REFER TO DETAIL C4/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO CONCRETE WALL DETAIL.
10. [XX] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED ALONG BEAM LENGTH; REFER TO D6/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
11. [X-X-X] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED BETWEEN WF BEAMS ON WF GIRDERS; REFER TO D3/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
12. c = x" — INDICATES UPWARD CAMBER AT MID-SPAN.
13. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21
14. INDICATES REGIONS WITH #5 BARS @ 6"o.c. EACH WAY, WITH FORM SAVERS TO THE CONCRETE WALLS. REINF. IN LIEU OF TYP. REINF.
15. INDICATES STEEL CONNECTION AT THIS LOCATION IS PART OF THE SFRS. PROVIDE CLASS A SLIP CRITICAL FRAYING SURFACES AND FULLY PRE-TENSIONED BOLTS AT THE WF BEAM TO COLUMN CONNECTION AND BEAM TO BEAM CONNECTION. WELD SHALL MEET THE SRSF REQUIREMENTS LISTED IN THE STRUCTUAL GENERAL NOTES AND SPECIAL INSPECTION TABLES.
16. BEAMS ARE EQUALLY SPACED BETWEEN GRIDS, U.O.N.
17. PROVIDE BEAM PENETRATIONS IN ALL MEMBERS EXCEPT COLLECTORS AND TRANSFER MEMBERS. REF. A2/S6.22, TYP.



A1 FRAMING PLAN LEVEL 2 - SECTOR A
1/8" = 1'-0"

KEY PLAN



nbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2550
PORTLAND, OR 97204

LANDSCAPE ARCHITECT:
MAYER/REED, INC.
319 SW WASHINGTON ST, SUITE 820
PORTLAND, OR 97204

STRUCTURAL ENGINEER:
CATENA CONSULTING ENGINEERS
1500 NE IRVING SREET, SUITE 412
PORTLAND, OR 97232

MECHANICAL & PLUMBING ENGINEER:
MAZZETTI + CDI
15203 36TH AVE W #200
LYNNWOOD, WA 98036

ELECTRICAL & COMMUNICATIONS & SECURITY ENGINEER:
STANTEC CONSULTING SERVICES
733 SW OAK ST, SUITE 200
PORTLAND, OR 97205

ACOUSTICAL ENGINEER:
STANTEC CONSULTING SERVICES
4100 194th ST SW, SUITE 400
LYNNWOOD, WA 98036

BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF OREGON — JENNIFER L. THOMPSON — 2018.02.27 — EXPIRES: 12/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 2 SECTOR A

SHEET NUMBER
S1.2A

2/27/2018 5:28:45 PM
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- UL D759 - 2Hr Floor Deck - 3/8"
- UL D902 - 2Hr Floor Deck - No Fireproofing Required
- UL N759 - 2Hr Floor Beams
- W12 x 022 - 7/8"
- W14 x 022 - 15/16"
- W16 x 026 - 15/16"
- W16 x 036 - 7/8"
- W16 x 040 - 13/16"
- W16 x 050 - 11/16"
- W16 x 057 - 11/16"
- W24 x 076 - 11/16"
- UL N759 - 3Hr Floor Beams
- W16 x 026 - 1 1/2"
- W16 x 040 - 1 1/4"
- W16 x 050 - 1 1/8"
- W24 x 062 - 1 1/8"
- W24 x 068 - 1 1/8"
- W24 x 076 - 1 1/16"
- W24 x 094 - 15/16"
- W27 x 129 - 13/16"
- .UL X790 3Hr Columns
- HSS 08x08x5/16 - 1 3/4"
- HSS 10x08x5/8 - 1 1/8"
- HSS 10x10x1/2 - 1 3/8"
- HSS 10x10x3/8 - 1 9/16"
- HSS 10x10x5/8 - 1 1/8"

KEYED NOTES:

1. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY; PROVIDE ADDITIONAL #5 x 12'-0" @ 12"o.c. CENTERED OVER GIRDERS.
2. PROVIDE 'T' PLATE ASSEMBLY ATOP WF BEAM. REF. B5/S6.23.
3. 1 1/2" 18GA. COMPOSITE METAL DECK WITH 3" CONCRETE TOPPING WITH #4 @ 12"o.c. EACH WAY. PROVIDE ADDITIONAL #5 @ 12"o.c. CENTERED OVER GIRDERS.
4. L3x3x1/4 LATERAL BRACE AT 1/3 GIRDER SPAN, REF. B5/S6.24. SOLID CIRCLE INDICATES BRACE END @ B.O. BEAM
5. 3" 18 GA. TYPE 'W3' COMPOSITE METAL DECK W/ 3" CONC. TOPPING W/ #4 @ 12"o.c., EACH WAY
6. 2" 18 GA. TYPE W2 METAL DECK W/ 3 1/2" CONCRETE TOPPING AND #4 @ 12"o.c. EACH WAY
7. 10'-0" x 10'-0" BLOCKOUT FOR TOWER CRANE. INFILL AS SHOWN ON PLAN WITH TYPICAL SLAB ON METAL DECK.

PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
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6. T.O. SLAB XXX.XX — INDICATES TOP OF CONCRETE FILL ELEVATION.
7. INDICATES STEP IN ELEVATION, U.O.N. REFER TO D3/S6.31
8. REFER TO DETAIL C5/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTION DETAIL.
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12. c = x" — INDICATES UPWARD CAMBER AT MID-SPAN.
13. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21
14. INDICATES REGIONS WITH #5 BARS @ 6"o.c. EACH WAY, WITH FORM SAVERS TO THE CONCRETE WALLS. REINF. IN LIEU OF TYP. REINF.
15. INDICATES STEEL CONNECTION. AT THIS LOCATION IS PART OF THE SFRS. PROVIDE CLASS A SLIP CRITICAL FRAYING SURFACES AND FULLY PRE-TENSIONED BOLTS AT THE WF BEAM TO COLUMN CONNECTION ADN BEAM TO BEAM CONNECTION. WELD SHALL MEET THE SRSF REQUIREMENTS LISTED IN THE STRUCTUAL GENERAL NOTES AND SPECIAL INSPECTION TABLES.
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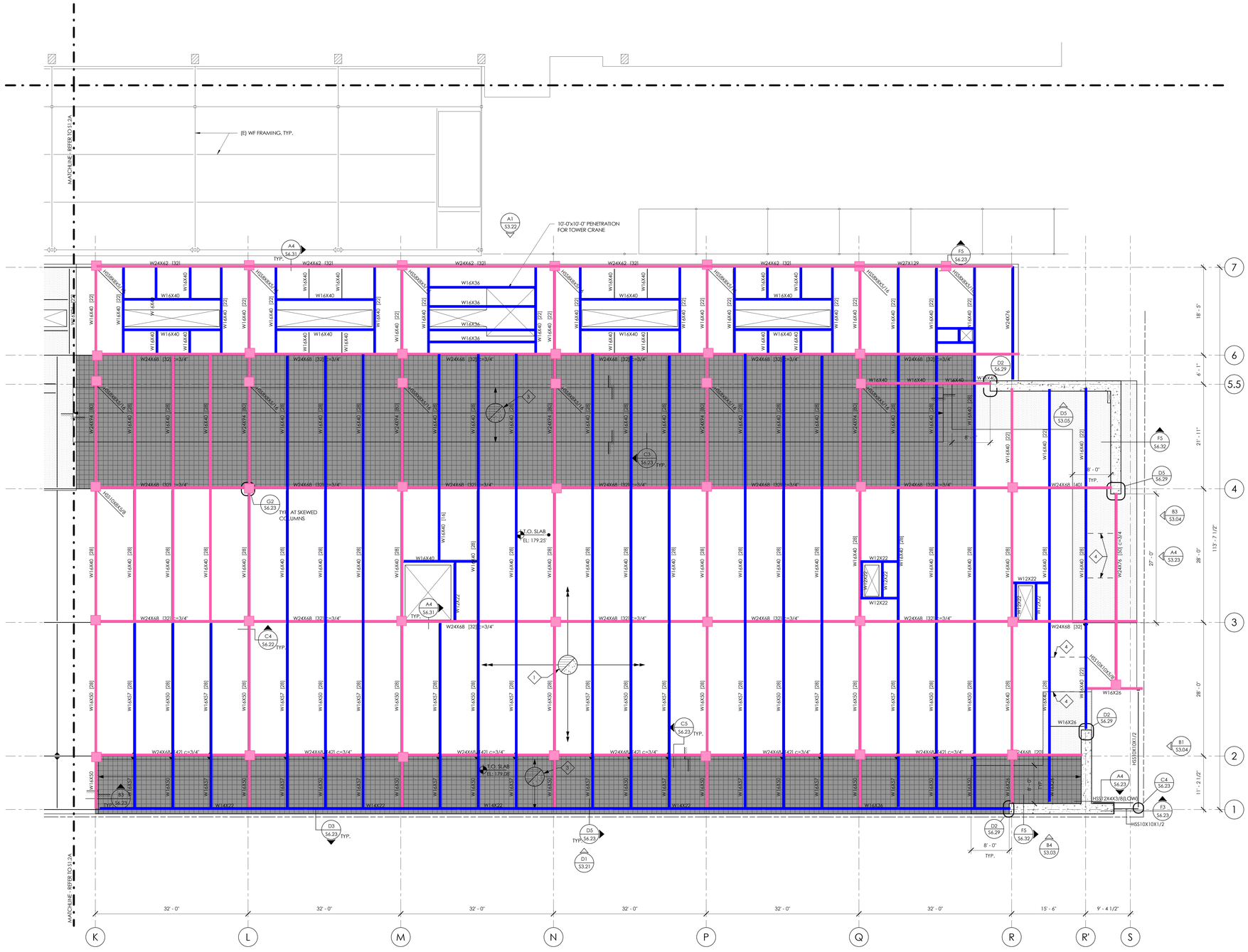
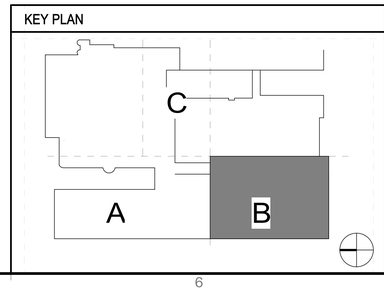
17. PROVIDE BEAM PENETRATIONS IN ALL MEMBERS EXCEPT COLLECTORS AND TRANSFER MEMBERS. REF. A2/S6.22, TYP.



A1 FRAMING PLAN LEVEL 2 - SECTOR B
1/8" = 1'-0"

KEY PLAN



nbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2550
PORTLAND, OR 97204

LANDSCAPE ARCHITECT:
MAYER/REED, INC.
319 SW WASHINGTON ST, SUITE 820
PORTLAND, OR 97204

STRUCTURAL ENGINEER:
CATENA CONSULTING ENGINEERS
1500 NE IRVING SREET, SUITE 412
PORTLAND, OR 97232

MECHANICAL & PLUMBING ENGINEER:
MAZZETTI + CDI
15203 36TH AVE W #200
LYNNWOOD, WA 98036

ELECTRICAL & COMMUNICATIONS & SECURITY ENGINEER:
STANTEC CONSULTING SERVICES
733 SW OAK ST, SUITE 200
PORTLAND, OR 97205

ACOUSTICAL ENGINEER:
STANTEC CONSULTING SERVICES
4100 194th ST SW, SUITE 400
LYNNWOOD, WA 98036

BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL PROFESSIONAL ENGINEER — CHRISTOPHER J. THORSTEN — 2018.02.27 — EXPIRES: 06/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 2 SECTOR B

SHEET NUMBER
S1.2B

2/27/2018 5:28:48 PM
\\SE2013R2\Folder Redirection\Michael\Documents\2017053-LEMC-STRUCT-R17_catenaboudreau.rvt

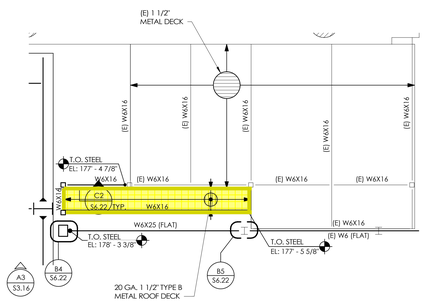
PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
4. VERIFY MECHANICAL EQUIPMENT & DUCTWORK LOCATIONS, OPENINGS, AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. REFER TO METAL DECK DETAILS FOR DECK REINFORCING AT OPENINGS; NOT ALL OPENINGS ARE NECESSARILY SHOWN; REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, & PLUMBING DRAWINGS.
6. T.O. SLAB XXX.XX — INDICATES TOP OF CONCRETE FILL ELEVATION.
7. INDICATES STEP IN ELEVATION, U.O.N. REFER TO D3 / S6.31
8. REFER TO DETAIL C5/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTION DETAIL.
9. [XX] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED ALONG BEAM LENGTH; REFER TO D6/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
10. [X-X-X] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED BETWEEN WF BEAMS ON WF GIRDERS; REFER TO D6/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
11. c = x" — INDICATES UPWARD CAMBER AT MID-SPAN.
12. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21.
13. A.S. — INDICATES ANGLE STRUT BRACING AT EQUAL SPACING ALONG LENGTH OF BEAM, U.O.N.; REFER TO A5/S6.22
14. F — INDICATES FULL-DEPTH SHEAR PLATE CONNECTION, REFER TO A6/S6.22
15. INDICATES 4 1/2" MAX. THICK LEVELING COMPOUND (125 PCF MAX.)
16. BEAMS ARE EQUALLY SPACED BETWEEN GRIDS, U.O.N.
17. PROVIDE BEAM PENETRATIONS IN ALL MEMBERS EXCEPT COLLECTORS AND TRANSFER MEMBERS, REF. A2/S6.22, TYP.

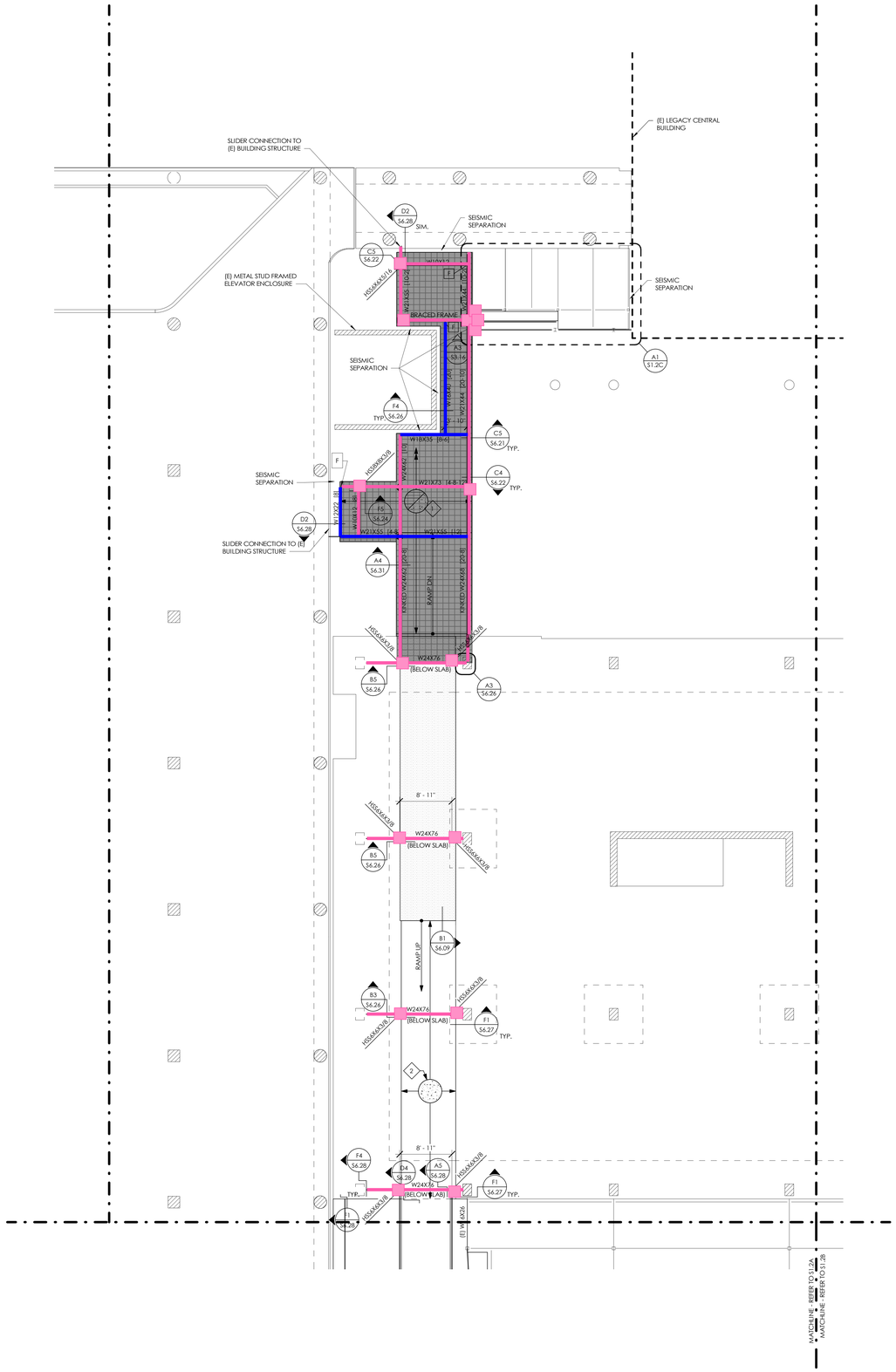
KEYED NOTES:

1. 3" 18 GA METAL DECK W/ 3" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH WAY
2. 4" MAX. CONC. SLAB W/ #4 @ 16"o.c. E.W. OVER GEOFOAM
3. 3" 18 GA METAL DECK W/ 3" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH WAY
4. 3" 18 GA. TYPE N NON-COMPOSITE METAL DECK

- UL D759 - 2Hr Floor Deck - 3/8"
- UL N759 - 2Hr Floor Beams
- W12 x 022 - 7/8"
- W16 x 040 - 13/16"
- W18 x 035 - 7/8"
- W21 x 055 - 3/4"
- UL N759 - 3Hr Floor Beams
- W10 x 012 - 1 -3/4"
- W14 x 048 - 1 1/8"
- W21 x 044 - 1 1/4"
- W21 x 055 - 1 3/16"
- W21 x 073 - 1"
- W24 x 062 - 1 1/8"
- W24 x 068 - 1 1/8"
- W24 x 076 - 1 1/16"
- .UL P723 1.5Hr Roof Deck - 1 3/16"
- .UL S721 1.5Hr Roof Beams
- W10 x 12 - 15/16"
- .UL X790 3Hr Columns
- HSS 04x04x1/4 - 2 1/16"
- HSS 06x06x1/4 - 2"
- HSS 06x06x3/8 - 1 9/16"
- HSS 08x08x3/8 - 1 9/16"
- HSS 10x08x3/8 - 1 9/16"
- W16 x 089 - 1 1/2"

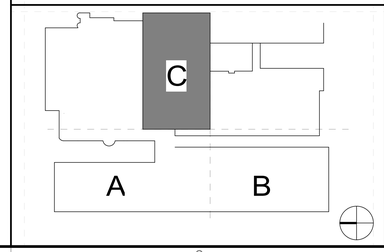


A1 PARTIAL FRAMING PLAN LEVEL 2
1/4" = 1'-0"



B2 FRAMING PLAN LEVEL 2 - SECTOR C
1/8" = 1'-0"

KEY PLAN



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LEGACY EMANUEL MEDICAL CENTER
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STRUCTURAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF OREGON
JONATHAN THOMPSON
2018.02.27
EXPIRES: 06/30/2018

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SHEET ISSUED: 03/02/18

REVISIONS

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PROJECT NO. 101333.00

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SCALE: As indicated

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE

FRAMING PLAN LEVEL 2 SECTOR C

SHEET NUMBER

S1.2C

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\\SE2012R2F-Folder Redirection\Michael\Documents\2017053-LEMC-STRUCT-R17_catenaboudreau.rvt

- UL D759 - 2Hr Floor Deck - 3/8"
- UL D902 - 2Hr Floor Deck - No Fireproofing Required
- UL N759 - 2Hr Floor Beams
- W12 x 014 - 1 1/16"
- W12 x 022 - 7/8"
- W14 x 022 - 15/16"
- W14 x 030 - 7/8"
- W16 x 026 - 15/16"
- W16 x 036 - 7/8"
- W16 x 040 - 13/16"
- W16 x 050 - 11/16"
- W16 x 057 - 11/16"
- W16 x 067 - 11/16"
- W18 x 035 - 7/8"
- W21 x 050 - 3/4"
- W21 x 073 - 5/8"
- W24 x 055 - 3/4"
- W24 x 062 - 3/4"
- W24 x 068 - 11/16"
- W24 x 076 - 11/16"
- UL N759 - 3Hr Floor Beams
- W10 x 012 - 1 3/4"
- W16 x 026 - 1 1/2"
- W16 x 040 - 1 1/4"
- W16 x 050 - 1 1/8"
- W18 x 035 - 1 3/8"
- W21 x 050 - 1 3/16"
- W21 x 073 - 1"
- W24 x 055 - 1 3/16"
- W24 x 068 - 1 1/8"
- W24 x 076 - 1 1/16"
- W24 x 094 - 15/16"
- W24 x 192 - 5/8"
- W27 x 084 - 1 1/16"
- W30 x 090 - 1 1/16"
- .UL X790 2Hr Columns
- HSS 06x06x3/8 - 1"
- .UL X790 3Hr Columns
- HSS 08x08x5/16 - 1 3/4"
- HSS 10x08x5/8 - 1 1/8"
- HSS 10x10x3/8 - 1 9/16"
- HSS 10x10x5/8 - 1 1/8"
- HSS 12x08x3/8 - 1 9/16"
- HSS 18x06x5/8 - 1 3/8"
- W27 x 161 - 1 1/4"

KEYED NOTES:

1. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY; PROVIDE ADDITIONAL #5 x 12'-0" @ 12"o.c. CENTERED OVER GIRDERS.
2. 6" CONCRETE CURB W/ #4 @ 12"o.c. EACH WAY
3. 1 1/2" 18 GA. COMPOSITE METAL DECK WITH 3" CONCRETE TOPPING WITH #4 @ 12"o.c. EACH WAY, PROVIDE ADDITIONAL #5 @ 12"o.c. CENTERED OVER GIRDERS.
4. L3x3x1/4 LATERAL BRACE AT 1/3 GIRDER SPAN. REF. B5/S6.24. SOLID CIRCLE INDICATES BRACE END @ B.O. BEAM.
5. 3" 18 GA METAL DECK W/ 3" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH WAY

PLAN NOTES:

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6. T.O. SLAB XXX.XX — INDICATES TOP OF CONCRETE FILL ELEVATION.
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8. REFER TO DETAIL C5/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTION DETAIL.
9. REFER TO DETAIL C4/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO CONCRETE WALL DETAIL.
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12. c = x" — INDICATES UPWARD CAMBER AT MID-SPAN.
13. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21
14. INDICATES REGIONS WITH #5 BARS @ 6"o.c. EACH WAY, WITH FORM SAVERS TO THE CONCRETE WALLS. THESE BARS REPLACE TYPICAL SLAB REINFORCING.
15. INDICATES STEEL CONNECTION. AT THIS LOCATION IS PART OF THE SFRS. PROVIDE CLASS A SLIP CRITICAL FRAYING SURFACES AND FULLY PRE-TENSIONED BOLTS AT THE WF BEAM TO COLUMN CONNECTION AND BEAM TO BEAM CONNECTION. WELD SHALL MEET THE SRSF REQUIREMENTS LISTED IN THE STRUCTUAL GENERAL NOTES AND SPECIAL INSPECTION TABLES.
16. BEAMS ARE EQUALLY SPACED BETWEEN GIRDS, U.O.N.
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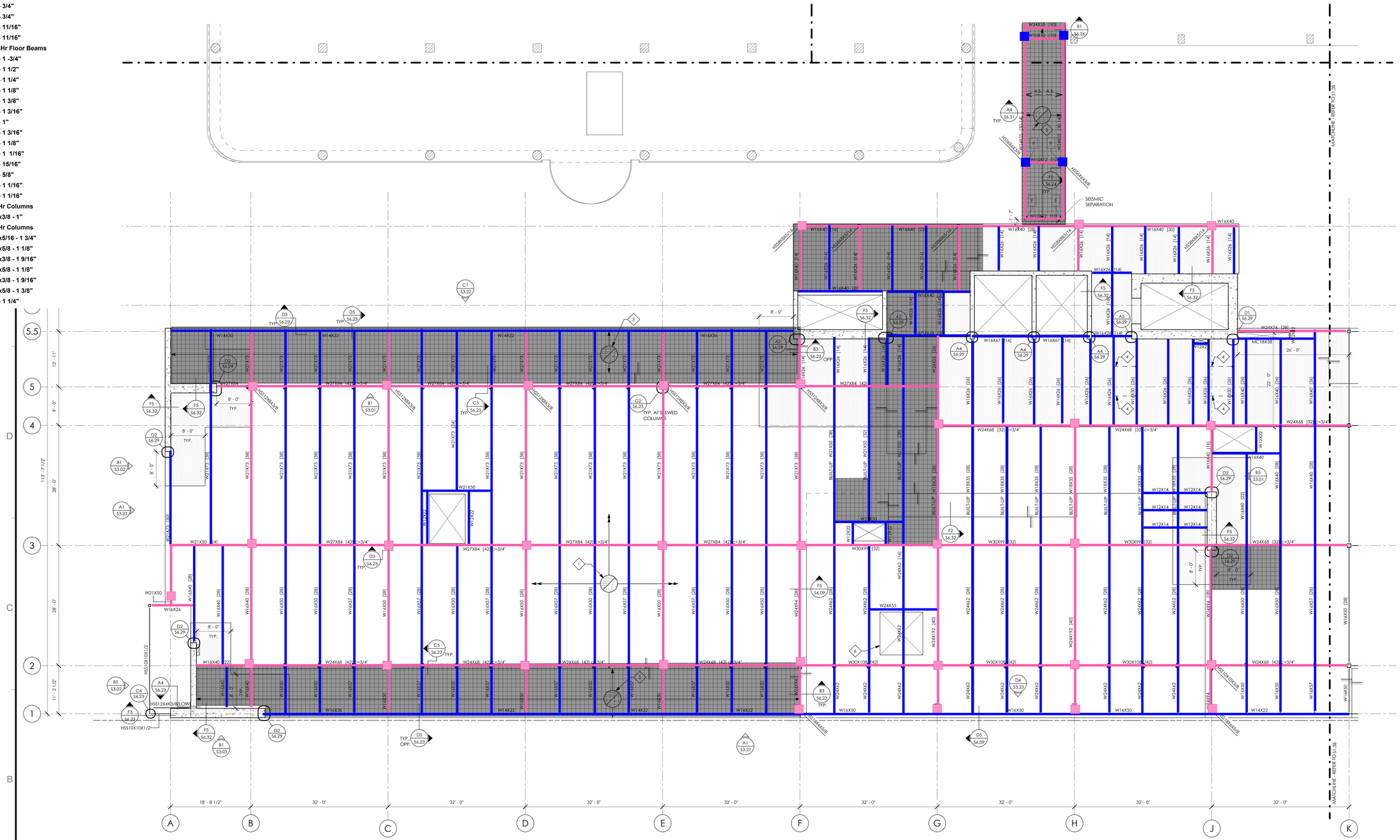
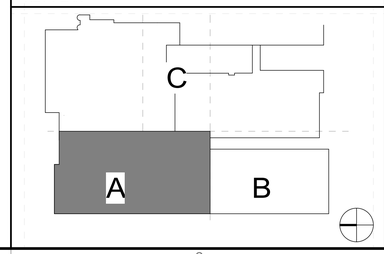


A1 FRAMING PLAN LEVEL 3 - SECTOR A
1/8" = 1'-0"

KEY PLAN



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PROJECT NAME

LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL — STATE OF OREGON — 90 REGISTERED PROFESSIONAL ENGINEER — OREGON — MICHAEL D. THOMPSON — 2018.02.27 — EXPIRES: 12/31/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 3 SECTOR A

SHEET NUMBER
S1.3A

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\\SE2012R2\Folder Redirection\Michael\Documents\2017053-LEMC-STRUCT-R17_catenaboudreau.rvt

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- HSS 08x08x5/16 - 1 3/4"
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- HSS 10x10x5/8 - 1 1/8"

KEYED NOTES:

1. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY; PROVIDE ADDITIONAL #5 x 12'-0" @ 12"o.c. CENTERED OVER GIRDERS.
2. 6" CONCRETE CURB W/ #4 @ 12"o.c. EACH WAY
3. 1 1/2" 18 GA. COMPOSITE METAL DECK WITH 3" CONCRETE TOPPING WITH #4 @ 12"o.c. EACH WAY. PROVIDE ADDITIONAL #5 @ 12"o.c. CENTERED OVER GIRDERS.
4. L3x3x1/4 LATERAL BRACE AT 1/3 GIRDER SPAN. REF. B5/S6.24. SOLID CIRCLE INDICATES BRACE END @ B.O. BEAM.
5. 3" 18 GA METAL DECK W/ 3" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH WAY

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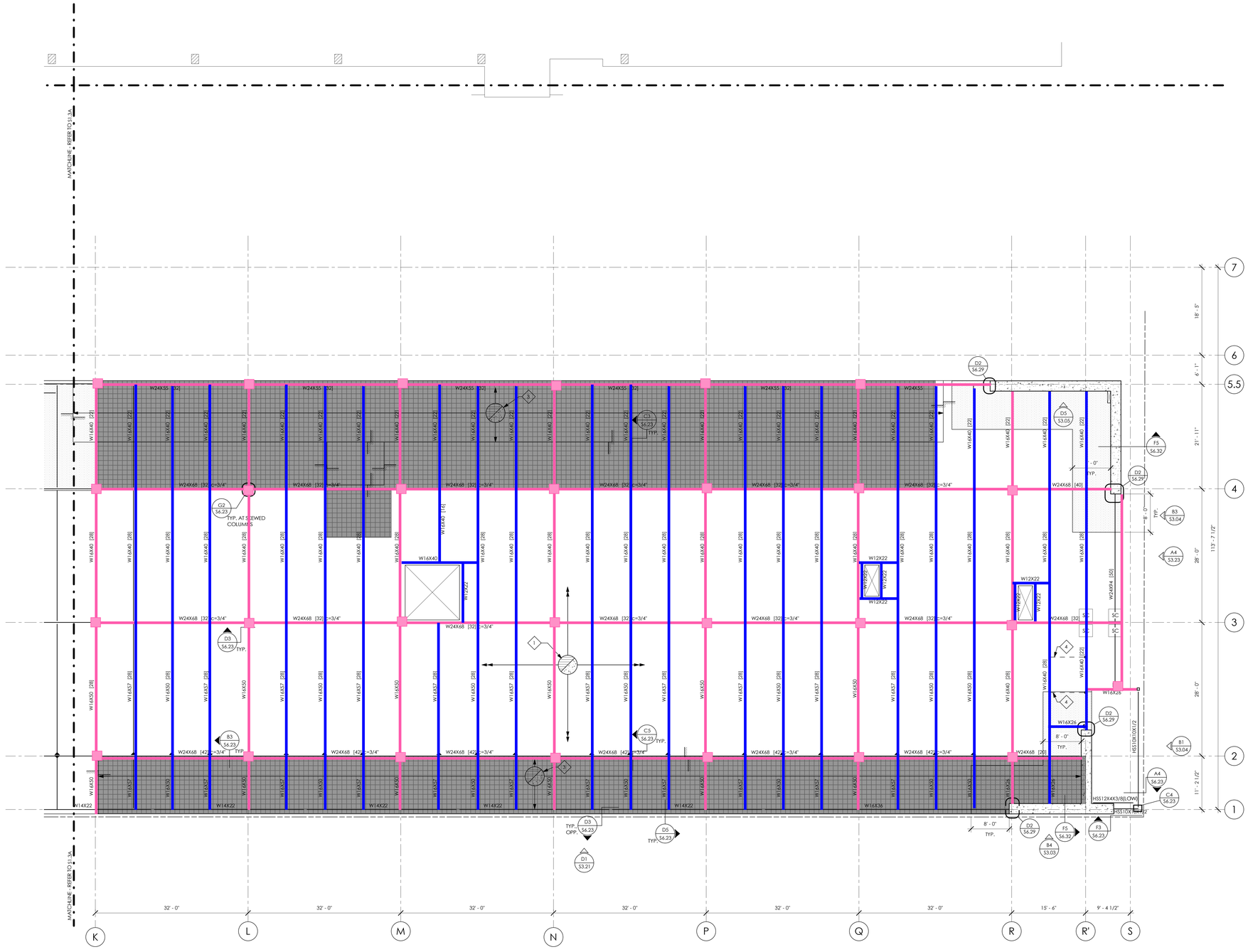
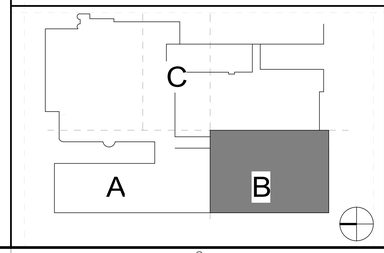


A1 FRAMING PLAN LEVEL 3 - SECTOR B
1/8" = 1'-0"

KEY PLAN



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PHASE

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — JOHN DAVID THORNTON — 2018.02.27 — EXPIRES: 03/30/2018

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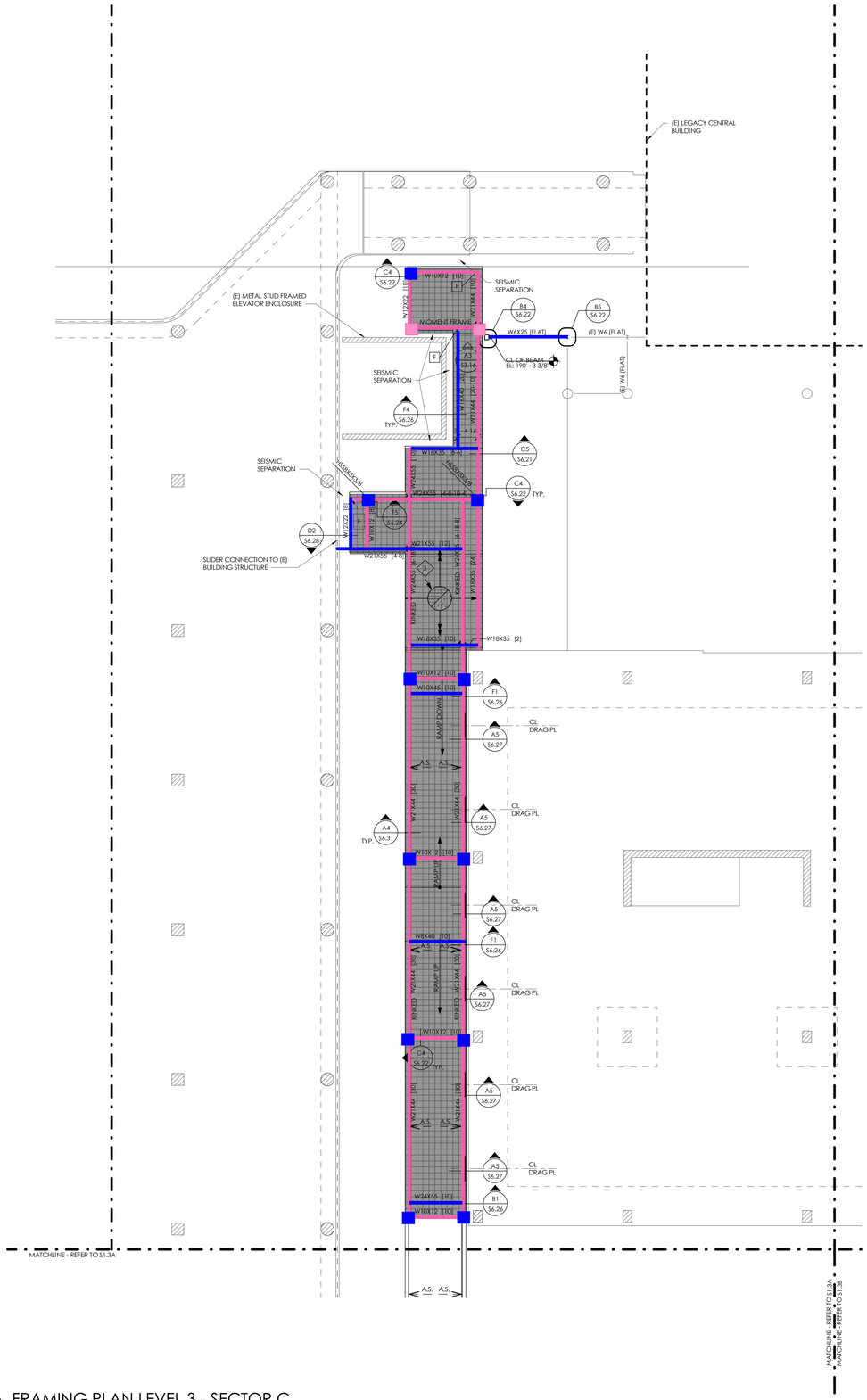
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
4. VERIFY MECHANICAL EQUIPMENT & DUCTWORK LOCATIONS, OPENINGS, AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. REFER TO METAL DECK DETAILS FOR DECK REINFORCING AT OPENINGS; NOT ALL OPENINGS ARE NECESSARILY SHOWN; REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, & PLUMBING DRAWINGS.
6. T.O. SLAB XXX.XX — INDICATES TOP OF CONCRETE FILL ELEVATION.
7. INDICATES STEP IN ELEVATION, U.O.N. REFER TO D3 / S6.31
8. REFER TO DETAIL C5/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTION DETAIL.
9. [XX] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED ALONG BEAM LENGTH; REFER TO D6/S6.31, WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
10. [X-X-X] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED BETWEEN WF BEAMS ON WF GIRDERS; REFER TO D6/S6.31, WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
11. c = x" — INDICATES UPWARD CAMBER AT MID-SPAN.
12. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21.
13. A.S. — INDICATES ANGLE STRUT BRACING AT EQUAL SPACING ALONG LENGTH OF BEAM, U.O.N.; REFER TO A5/S6.22
14. F — INDICATES FULL-DEPTH SHEAR PLATE CONNECTION, REFER TO A6/S6.22
15. INDICATES 4 1/2" MAX. THICK LEVELING COMPOUND (125 PCF MAX.)
16. BEAMS ARE EQUALLY SPACED BETWEEN GRIDS, U.O.N.
17. PROVIDE BEAM PENETRATIONS IN ALL MEMBERS EXCEPT COLLECTORS AND TRANSFER MEMBERS, REF. A2/S6.22, TYP.

KEYED NOTES:

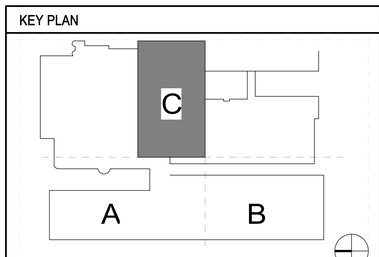
1. 3" 18 GA METAL DECK W/ 3" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH WAY
2. 4" MAX. CONC. SLAB W/ #4 @ 16"o.c. E.W. OVER GEOFOAM
3. 3" 18 GA METAL DECK W/ 3" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH WAY
4. 3" 18 GA. TYPE N NON-COMPOSITE METAL DECK

- UL D759 - 2Hr Floor Deck - 3/8"
- UL N759 - 2Hr Floor Beams
- W08 x 40 - 11/16"
- W10 x 045 - 11/16"
- W12 x 022 - 7/8"
- W16 x 040 - 13/16"
- W18 x 035 - 7/8"
- W21 x 055 - 3/4"
- W24 x 055 - 3/4"
- UL N759 - 3Hr Floor Beams
- W10 x 012 - 1 -3/4"
- W12 x 026 - 1 7/16"
- W14 x 048 - 1 1/8"
- W18 x 035 - 1 3/8"
- W21 x 044 - 1 1/4"
- W24 x 055 - 1 3/16"
- .UL X790 2Hr Columns
- HSS 06x06x1/4 - 1 3/8"
- HSS 06x06x3/8 - 1"
- HSS 08x08x3/8 - 1"
- W16 x 089 - 1 1/2"



B2 FRAMING PLAN LEVEL 3 - SECTOR C
1/8" = 1'-0"

KEY PLAN



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223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2500
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LANDSCAPE ARCHITECT:
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319 SW WASHINGTON ST, SUITE 820
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STRUCTURAL ENGINEER:
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1500 NE IRVING SREET, SUITE 412
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MECHANICAL & PLUMBING ENGINEER:
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19203 36TH AVE W #200
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ELECTRICAL & COMMUNICATIONS & SECURITY ENGINEER:
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ACOUSTICAL ENGINEER:
STANTEC CONSULTING SERVICES
4100 194th ST SW, SUITE 400
LYNNWOOD, WA 98036

BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL PROFESSIONAL ENGINEER — STATE OF OREGON — DAVID A. THOMPSON — 2018.02.27 — EXPIRES: 06/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 3 SECTOR C

SHEET NUMBER
S1.3C

2/27/2018 5:28:48 PM
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UL D902 - 2Hr Floor Deck - No Fireproofing Required
UL N759 - 2Hr Floor Beams
W12 x 022 - 7/8"
W14 x 022 - 15/16"
W14 x 030 - 7/8"
W16 x 026 - 15/16"
W16 x 036 - 7/8"
W16 x 040 - 13/16"
W16 x 050 - 11/16"
W16 x 067 - 11/16"
W21 x 044 - 13/16"
W21 x 048 - 13/16"
W21 x 055 - 3/4"
W21 x 062 - 11/16"
UL N759 - 3Hr Floor Beams
W12 x 014 - 1 11/16"
W14 x 022 - 1 1/2"
W16 x 026 - 1 1/2"
W16 x 040 - 1 1/4"
W16 x 067 - 1"
W21 x 044 - 1 1/4"
W21 x 050 - 1 3/16"
W21 x 055 - 1 3/16"
W21 x 073 - 1"
W21 x 083 - 15/16"
W21 x 093 - 7/8"
W24 x 055 - 1 3/16"
W24 x 062 - 1 1/8"
W24 x 068 - 1 1/8"
W24 x 076 - 1 1/16"
.UL P723 1.5Hr Roof Deck - 1 3/16"
.UL S721 1.5Hr Roof Beams
L5x5x3/8 - 15/16"
W10 x 12 - 15/16"
UL S721 2Hr Roof Beams
W10 x 12 - 1 1/4"
W21 x 044 - 15/16"
.UL X790 2Hr Columns
HSS 06x06x3/8 - 1"
HSS 08x08x5/16 - 1 1/8"
HSS 08x08x5/8 - 11/16"
HSS 10x10x3/8 - 1"
HSS 10x10x5/8 - 11/16"
HSS 12x08x3/8 - 1"
HSS 18x06x5/8 - 7/8"
W08 x 040 - 1 1/8"

KEYED NOTES:

1. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY; PROVIDE ADDITIONAL #5 x 12'-0" @ 12"o.c. CENTERED OVER GIRDERS.
2. 6" CONCRETE CURB W/ #4 @ 12"o.c. EACH WAY
3. L3x3x1/4 LATERAL BRACE AT 1/3 GIRDER SPAN, REF. B5/S6.24. SOLID CIRCLE INDICATES BRACE END @ B.O. BEAM
4. 3" 18 GA. TYPE N NON-COMPOSITE METAL DECK

PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
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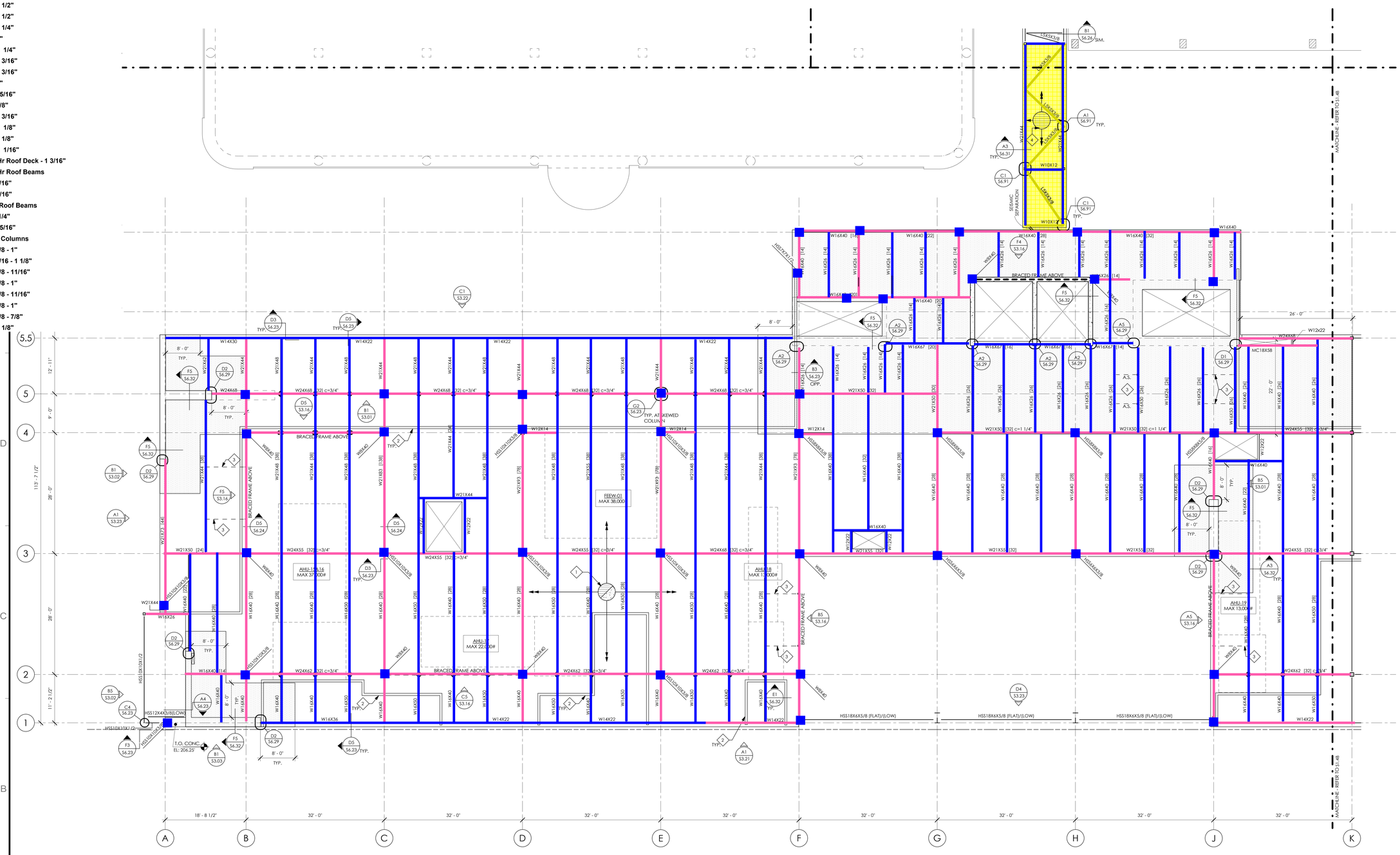
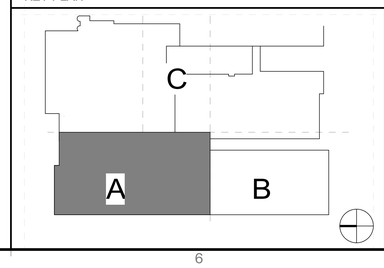
6. T.O. SLAB XXX.XX — INDICATES TOP OF CONCRETE FILL ELEVATION.
7. INDICATES STEP IN ELEVATION, U.O.N. REFER TO D3/S6.31
8. REFER TO DETAIL XX/SXXX FOR TYPICAL SHEAR TAB DETAIL.
9. [XX] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED ALONG BEAM LENGTH; REFER TO D6/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
10. [X-X-X] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED BETWEEN WF BEAMS ON WF GIRDERS; REFER TO D6/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
11. c = x" — INDICATES UPWARD CAMBER AT MID-SPAN.
12. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21.
13. INDICATES REGIONS WITH #5 BARS @ 6"o.c. EACH WAY, WITH FORM SAVERS TO THE CONCRETE WALLS. THESE BARS REPLACE TYPICAL SLAB REINFORCING.
14. A.S. — INDICATES ANGLE STRUT BRACING AT EQUAL SPACING ALONG LENGTH OF BEAM, U.O.N.; REFER TO A4/S6.22
15. INDICATES STEEL CONNECTION AT THIS LOCATION IS PART OF THE SFRS. PROVIDE CLASS A SLIP CRITICAL FRAYING SURFACES AND FULLY PRE-TENSIONED BOLTS AT THE WF BEAM TO COLUMN CONNECTION ADN BEAM TO BEAM CONNECTION. WELD SHALL MEET THE SRSF REQUIREMENTS LISTED IN THE STRUCTUAL GENERAL NOTES AND SPECIAL INSPECTION TABLES.
16. BEAMS ARE EQUALLY SPACED BETWEEN GIRDS, U.O.N.
17. PROVIDE BEAM PENETRATIONS IN ALL MEMBERS EXCEPT COLLECTORS AND TRANSFER MEMBERS, REF. A2/S6.22, TYP.



A1 FRAMING PLAN LEVEL 4 - SECTOR A
1/8" = 1'-0"

KEY PLAN



nbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2550
PORTLAND, OR 97204

LANDSCAPE ARCHITECT:
MAYER/REED, INC.
319 SW WASHINGTON ST, SUITE 820
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STRUCTURAL ENGINEER:
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1500 NE IRVING SREET, SUITE 412
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MECHANICAL & PLUMBING ENGINEER:
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ELEVATORS:
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BOTHELL, WA 98011

PROJECT NAME
LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL PROFESSIONAL ENGINEER
STATE OF OREGON
MICHAEL A. DRAPER
EXPIRES: 06/30/2018
2018.02.27

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 4 SECTOR A

SHEET NUMBER
S1.4A

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- UL D902 - 2Hr Floor Deck - No Fireproofing Required
- UL N759 - 2Hr Floor Beams
- W12 x 022 - 7/8"
- W14 x 022 - 15/16"
- W16 x 026 - 15/16"
- W16 x 040 - 13/16"
- W16 x 050 - 11/16"
- UL N759 - 3Hr Floor Beams
- W16 x 026 - 1 1/2"
- W16 x 036 - 1 5/16"
- W16 x 040 - 1 1/4"
- W16 x 050 - 1 1/8"
- W24 x 055 - 1 3/16"
- W24 x 062 - 1 1/8"
- W24 x 076 - 1 1/16"
- W24 x 094 - 15/16"
- .UL X790 2Hr Columns
- HSS 08x08x5/16 - 1 1/8"
- HSS 10x08x5/16 - 1 1/8"
- HSS 10x08x5/8 - 11/16"
- HSS 10x10x3/8 - 1"
- HSS 10x10x5/8 - 11/16"
- W08 x 040 - 1 1/8"

KEYED NOTES:

1. 2" 18 GA. COMPOSITE METAL DECK W/ 4 1/2" CONCRETE TOPPING & #4 @ 12"o.c. EACH WAY; PROVIDE ADDITIONAL #5 x 12'-0" @ 12"o.c. CENTERED OVER GIRDERS.
2. 6" CONCRETE CURB W/ #4 @ 12"o.c. EACH WAY
3. L3x3x1/4 LATERAL BRACE AT 1/3 GIRDER SPAN. REF. B5/S6.24. SOLID CIRCLE INDICATES BRACE END @ B.O. BEAM
4. 3" 18 GA. TYPE N NON-COMPOSITE METAL DECK

PLAN NOTES:

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6. T.O. SLAB XXX.XX' — INDICATES TOP OF CONCRETE FILL ELEVATION.
7. INDICATES STEP IN ELEVATION. U.O.N. REFER TO D3/S6.31
8. REFER TO DETAIL XX/SXXX FOR TYPICAL SHEAR TAB DETAIL.
9. [XX] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED ALONG BEAM LENGTH; REFER TO D6/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
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14. A.S. — INDICATES ANGLE STRUT BRACING AT EQUAL SPACING ALONG LENGTH OF BEAM, U.O.N.; REFER TO A4/S6.22
15. INDICATES STEEL CONNECTION AT THIS LOCATION IS PART OF THE SFRS. PROVIDE CLASS A SLIP CRITICAL FRAYING SURFACES AND FULLY PRE-TENSIONED BOLTS AT THE WF BEAM TO COLUMN CONNECTION AND BEAM TO BEAM CONNECTION. WELD SHALL MEET THE SRSF REQUIREMENTS LISTED IN THE STRUCTURAL GENERAL NOTES AND SPECIAL INSPECTION TABLES.
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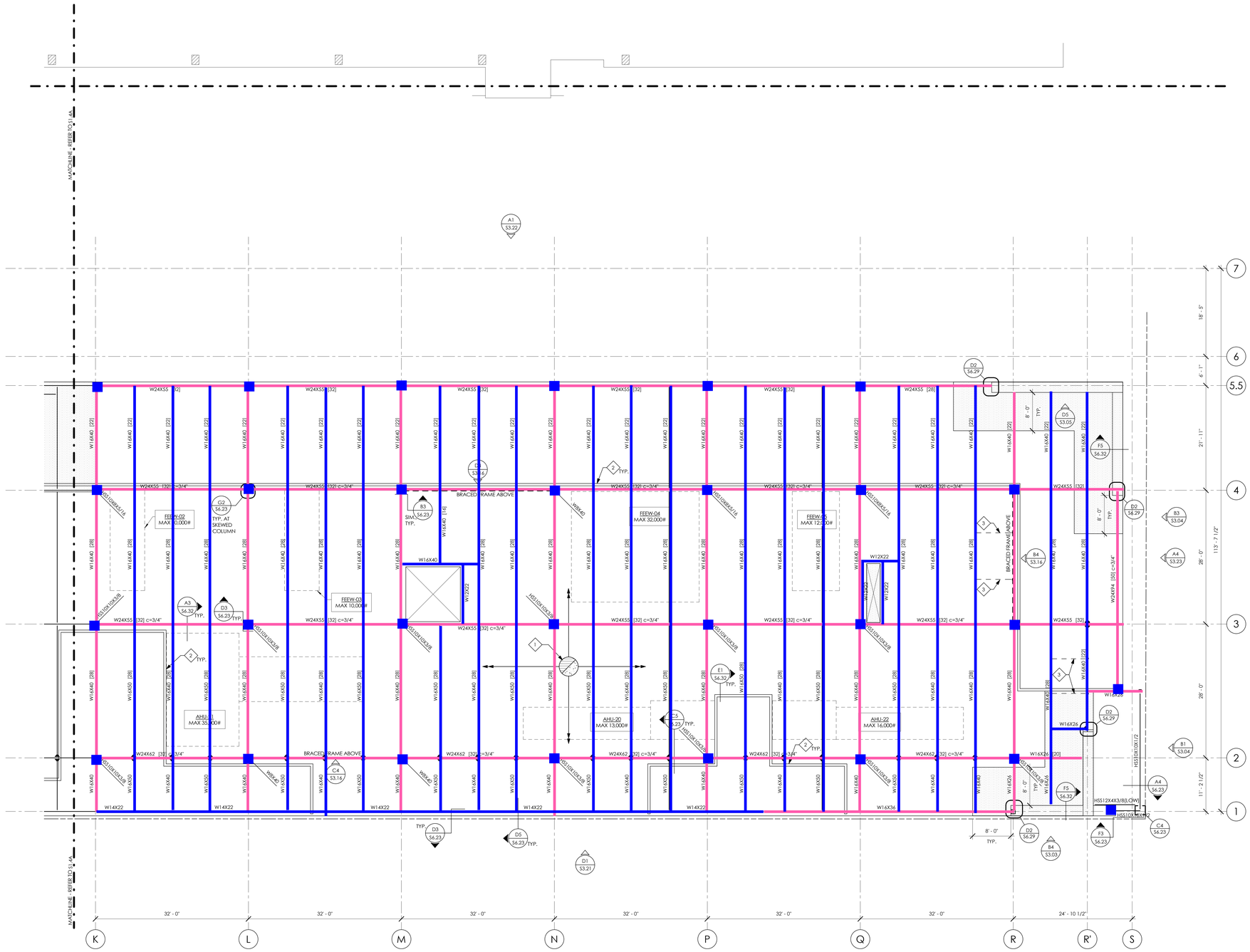
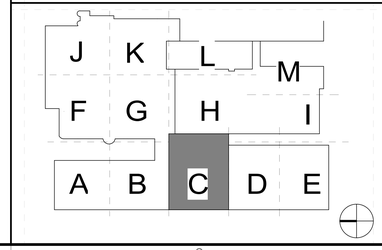


A1 FRAMING PLAN LEVEL 4 - SECTOR B
1/8" = 1'-0"

KEY PLAN



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223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2500
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LANDSCAPE ARCHITECT:
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319 SW WASHINGTON ST, SUITE 820
PORTLAND, OR 97204

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10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME
LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF OREGON — JOHN D. HOBBS — 2018.02.27 — EXPIRES: 06/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 4 SECTOR B

SHEET NUMBER
S1.4B

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PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
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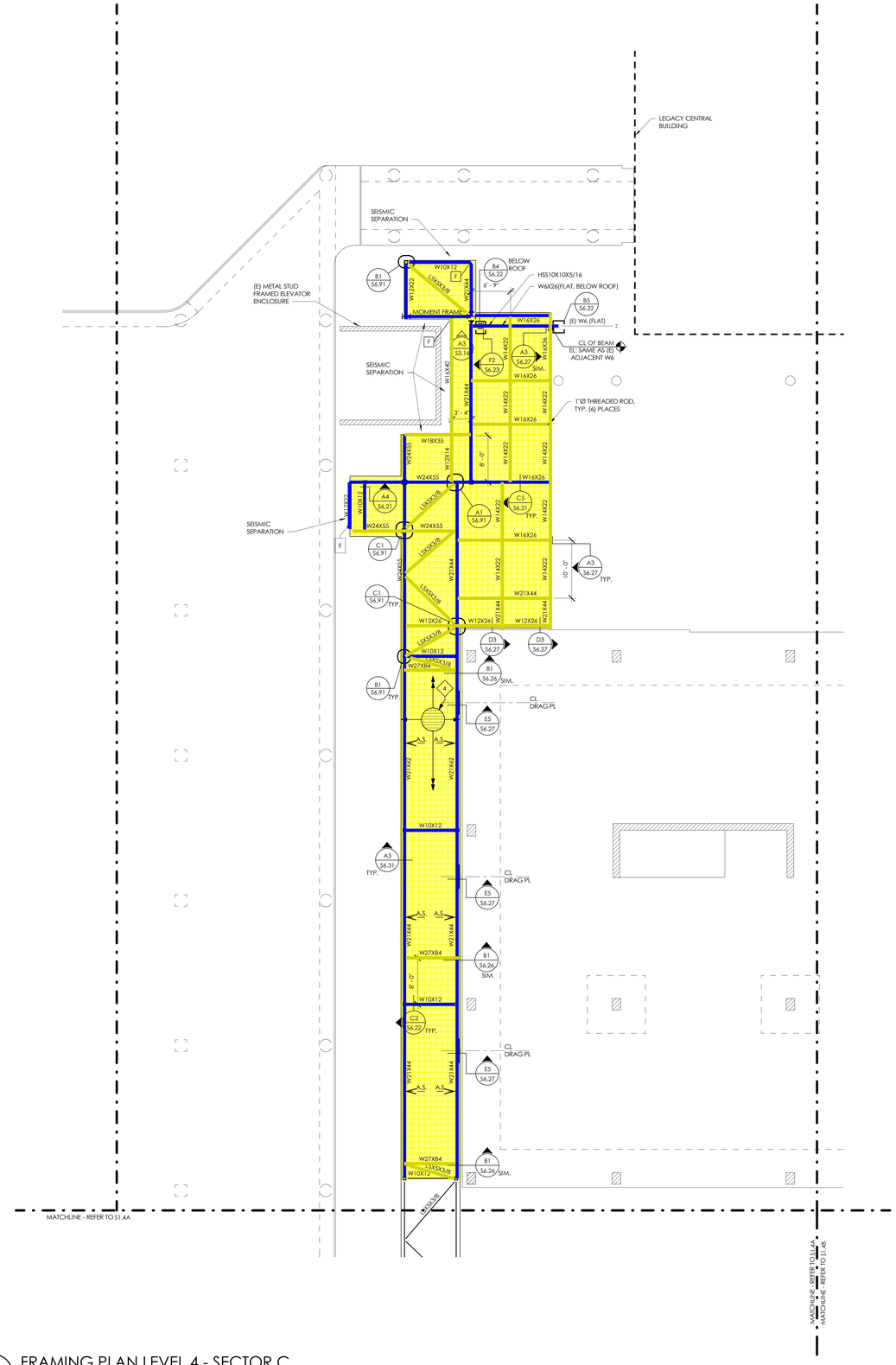
14. F — INDICATES FULL-DEPTH SHEAR PLATE CONNECTION, REFER TO A6/S6.22
15. INDICATES 4 1/2" MAX. THICK LEVELING COMPOUND (125 PCF MAX.)
16. BEAMS ARE EQUALLY SPACED BETWEEN GRIDS, U.O.N.
17. PROVIDE BEAM PENETRATIONS IN ALL MEMBERS EXCEPT COLLECTORS AND TRANSFER MEMBERS, REF. A2/S6.22, TYP.

KEYED NOTES:

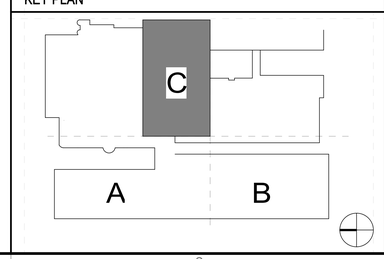
1. 3" 18 GA METAL DECK W/ 3" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH WAY
2. 4" MAX. CONC. SLAB W/ #4 @ 16"o.c. E.W. OVER GEOFOAM
3. 3" 18 GA METAL DECK W/ 3" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH WAY
4. 3" 18 GA. TYPE N NON-COMPOSITE METAL DECK

- .UL P723 1.5Hr Roof Deck - 1 3/16"
- .UL S721 1.5Hr Roof Beams
- L5x5x3/8 - 15/16"
- W10 x 12 - 15/16"
- W12 x 26 - 3/4"
- W14 x 22 - 13/16"
- W16 x 26 - 13/16"
- W16 x 40 - 11/16"
- W18 x 35 - 3/4"
- W21 x 44 - 11/16"
- W24 x 55 - 5/8"
- W27 x 84 - 9/16"
- UL S721 2Hr Roof Beams
- W10 x 12 - 1 1/4"
- W16 x 026 - 1 1/16"
- W21 x 044 - 15/16"
- W21 x 062 - 13/16"
- W24 x 055 - 7/8"



B2 FRAMING PLAN LEVEL 4 - SECTOR C
1/8" = 1'-0"

KEY PLAN



nbbj
223 YALE AVENUE NORTH
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PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2500
PORTLAND, OR 97204

LANDSCAPE ARCHITECT:
MAYER/REED, INC.
319 SW WASHINGTON ST, SUITE 820
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STRUCTURAL ENGINEER:
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1500 NE IRVING SREET, SUITE 412
PORTLAND, OR 97232

MECHANICAL & PLUMBING ENGINEER:
MAZZETTI + CDI
15003 36TH AVE W #200
LYNNWOOD, WA 98036

ELECTRICAL & COMMUNICATIONS & SECURITY ENGINEER:
STANTEC CONSULTING SERVICES
733 SW OAK ST, SUITE 200
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ACOUSTICAL ENGINEER:
STANTEC CONSULTING SERVICES
4100 194th ST SW, SUITE 400
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BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N GREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH

LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 14708PE DAVID L. THOMSON 2018.02.27 EXPIRES: 06/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 4 SECTOR C

SHEET NUMBER
S1.4C

2/27/2018 5:28:50 PM
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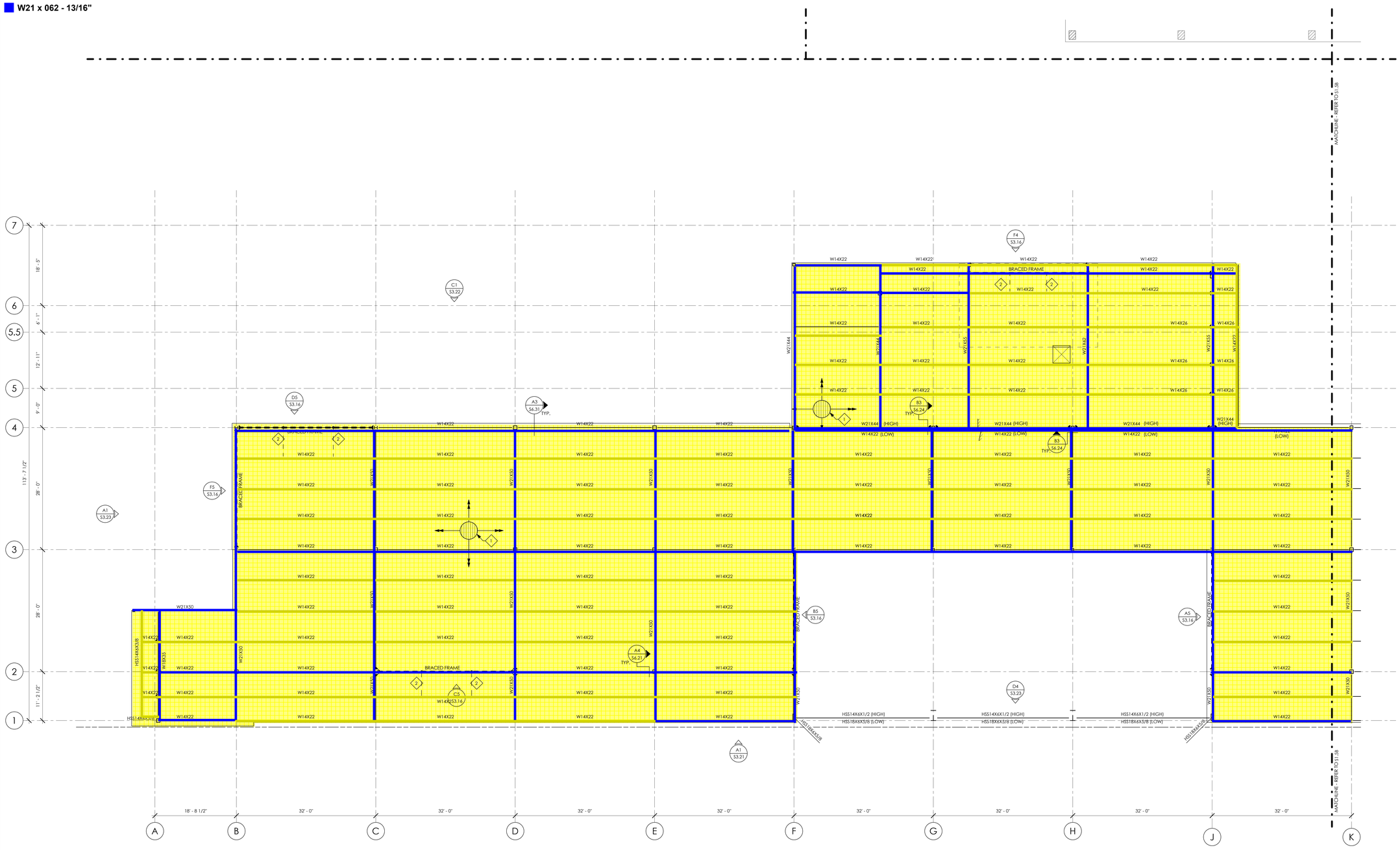
- .UL P723 1.5Hr Roof Deck - 1 3/16"
- .UL S721 1.5Hr Roof Beams
- HSS 14x6x3/8" -
- W14 x 22 - 13/16"
- W14 x 26 - 3/4"
- UL S721 2Hr Roof Beams
- W14 x 022 - 1 1/16"
- W14 x 053 - 3/4"
- W16 x 026 - 1 1/16"
- W18 x 035 - 1"
- W21 x 044 - 15/16"
- W21 x 050 - 7/8"
- W21 x 055 - 7/8"
- W21 x 062 - 13/16"

KEYED NOTES:

1. 1 1/2" 18 GA. TYPE B METAL DECK
2. L3x3x1/4 LATERAL BRACE AT 1/3 GIRDER SPAN. REF. B5/S6.24. SOLID CIRCLE INDICATES BRACE END @ B.O. BEAM.

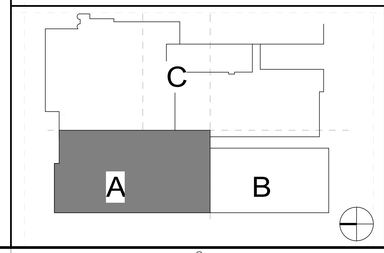
PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
4. VERIFY MECHANICAL EQUIPMENT & DUCTWORK LOCATIONS, OPENINGS, AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. REFER TO METAL DECK DETAILS FOR DECK REINFORCING AT OPENINGS; NOT ALL OPENINGS ARE NECESSARILY SHOWN; REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, & PLUMBING DRAWINGS.
6. T.O. SLAB XXX.XX — INDICATES TOP OF CONCRETE FILL ELEVATION.
7. INDICATES STEP IN ELEVATION. U.O.N. REFER TO D3 / S6.31
8. REFER TO DETAIL C5/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTION DETAIL.
9. REFER TO DETAIL C4/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO CONCRETE WALL DETAIL.
10. [XX] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED ALONG BEAM LENGTH; REFER TO D6/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
11. [X-X-X] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED BETWEEN WF BEAMS ON WF GIRDERS; REFER TO D3/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
12. c = x" — INDICATES UPWARD CAMBER AT MID-SPAN.
13. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21
14. INDICATES REGIONS WITH #5 BARS @ 6"o.c. EACH WAY, WITH FORM SAVERS TO THE CONCRETE WALLS. REINF. IN LIEU OF TYP. REINF.
15. INDICATES STEEL CONNECTION . AT THIS LOCATION IS PART OF THE SFRS. PROVIDE CLASS A SLIP CRITICAL FRAYING SURFACES AND FULLY PRE-TENSIONED BOLTS AT THE WF BEAM TO COLUMN CONNECTION AND BEAM TO BEAM CONNECTION. WELD SHALL MEET THE SRSF REQUIREMENTS LISTED IN THE STRUCTUAL GENERAL NOTES AND SPECIAL INSPECTION TABLES. TYP. AT HIGH AND LOW BEAMS
16. BEAMS ARE EQUALLY SPACED BETWEEN GRIDS, U.O.N.
17. PROVIDE BEAM PENETRATIONS IN ALL MEMBERS EXCEPT COLLECTORS AND TRANSFER MEMBERS, REF. A2/S6.22, TYP..



A1 FRAMING PLAN LEVEL 5 ROOF - SECTOR A
1/8" = 1'-0"

KEY PLAN



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PROJECT TEAM

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ACOUSTICAL ENGINEER:
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4100 194th ST SW, SUITE 400
LYNNWOOD, WA 98036

BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
BOTHELL, WA 98011

PROJECT NAME

LEGACY HEALTH

LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF OREGON — DANIEL L. THOMPSON — 2018.02.27 — EXPIRES: 06/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 5 ROOF SECTOR A

SHEET NUMBER
S1.5A

2/27/2018 5:28:51 PM
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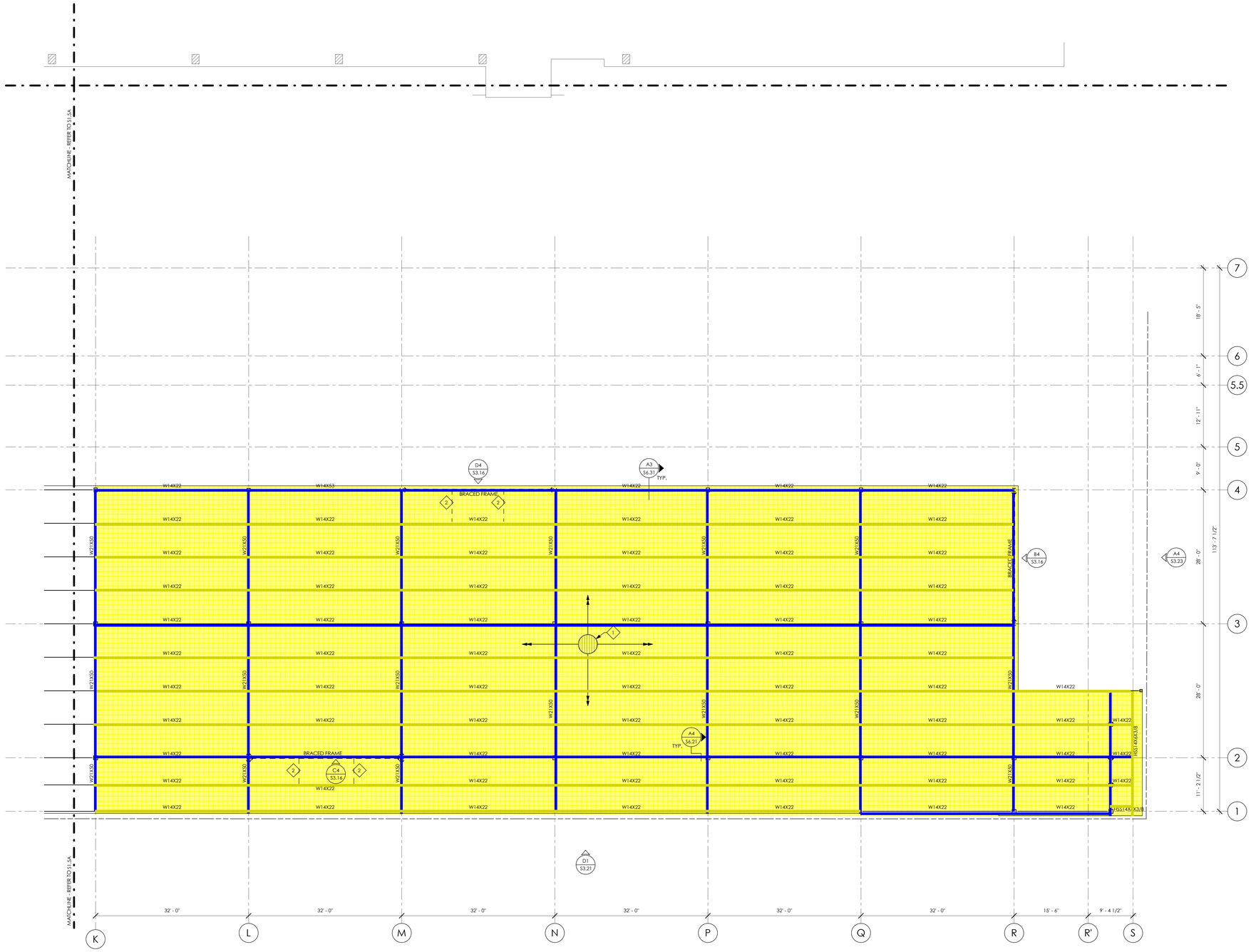
- .UL P723 1.5Hr Roof Deck - 1 3/16"
- .UL S721 1.5Hr Roof Beams
- HSS 14x6x3/8" -
- W14 x 22 - 13/16"
- UL S721 2Hr Roof Beams
- W14 x 022 - 1 1/16"
- W14 x 053 - 3/4"
- W21 x 050 - 7/8"
- W21 x 062 - 13/16"

KEYED NOTES:

1. 1 1/2" 18 GA. TYPE B METAL DECK
2. L3x3x1/4 LATERAL BRACE AT 1/3 GIRDER SPAN. REF. B5/S6.24. SOLID CIRCLE INDICATES BRACE END @ B.O. BEAM.

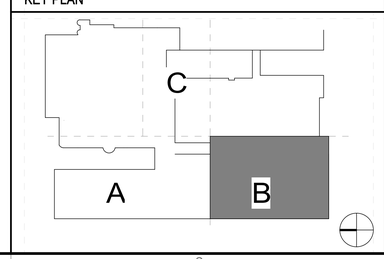
PLAN NOTES:

1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
4. VERIFY MECHANICAL EQUIPMENT & DUCTWORK LOCATIONS, OPENINGS, AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. REFER TO METAL DECK DETAILS FOR DECK REINFORCING AT OPENINGS; NOT ALL OPENINGS ARE NECESSARILY SHOWN; REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, & PLUMBING DRAWINGS.
6. T.O. SLAB XXX.XX — INDICATES TOP OF CONCRETE FILL ELEVATION.
7. INDICATES STEP IN ELEVATION. U.O.N. REFER TO D3/S6.31
8. REFER TO DETAIL C5/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTION DETAIL.
9. REFER TO DETAIL C4/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO CONCRETE WALL DETAIL.
10. [XX] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED ALONG BEAM LENGTH; REFER TO D6/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
11. [X-X-X] — INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED BETWEEN WF BEAMS ON WF GIRDERS; REFER TO D3/S6.31. WHERE NO NUMBER IS GIVEN PROVIDE STUDS @ 12"o.c. MAXIMUM.
12. c = x" — INDICATES UPWARD CAMBER AT MID-SPAN.
13. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21
14. INDICATES REGIONS WITH #5 BARS @ 6"o.c. EACH WAY, WITH FORM SAVERS TO THE CONCRETE WALLS, REINF. IN LIEU OF TYP. REINF.
15. INDICATES STEEL CONNECTION AT THIS LOCATION IS PART OF THE SFRS. PROVIDE CLASS A SLIP CRITICAL FRAYING SURFACES AND FULLY PRE-TENSIONED BOLTS AT THE WF BEAM TO COLUMN CONNECTION ADN BEAM TO BEAM CONNECTION. WELD SHALL MEET THE SRSF REQUIREMENTS LISTED IN THE STRUCTUAL GENERAL NOTES AND SPECIAL INSPECTION TABLES. TYP. AT HIGH AND LOW BEAMS
16. BEAMS ARE EQUALLY SPACED BETWEEN GRIDS, U.O.N.
17. PROVIDE BEAM PENETRATIONS IN ALL MEMBERS EXCEPT COLLECTORS AND TRANSFER MEMBERS, REF. A2/S6.22, TYP.



A1 FRAMING PLAN LEVEL 5 ROOF - SECTOR B
1/8" = 1'-0"

KEY PLAN



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223 YALE AVENUE NORTH
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PHONE 206 223 5555

PROJECT TEAM

CIVIL ENGINEER:
KPFF CONSULTING ENGINEERS
111 SW FIFTH AVE #2500
PORTLAND, OR 97204

LANDSCAPE ARCHITECT:
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319 SW WASHINGTON ST, SUITE 820
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STRUCTURAL ENGINEER:
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1500 NE IRVING SREET, SUITE 412
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MECHANICAL & PLUMBING ENGINEER:
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15033 36TH AVE W #200
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STANTEC CONSULTING SERVICES
733 SW OAK ST, SUITE 200
PORTLAND, OR 97205

ACOUSTICAL ENGINEER:
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4100 194th ST SW, SUITE 400
LYNNWOOD, WA 98036

BUILDING ENVELOPE:
MORRISON HERSHFIELD
10900 NE 8TH ST
BELLEVUE, WA 98004

ELEVATORS:
LERCH BATES, INC.
19515 N CREEK PARKWAY SUITE 304
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PROJECT NAME
LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL — PROFESSIONAL ENGINEER — STATE OF OREGON — JEFFREY L. HOUSTON — 2018.02.27 — EXPIRES: 06/30/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #2 UNLESS OTHERWISE NOTED

SHEET ISSUED: 03/02/18

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO.	101333.00
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ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FRAMING PLAN LEVEL 5 ROOF SECTOR B

SHEET NUMBER
S1.5B

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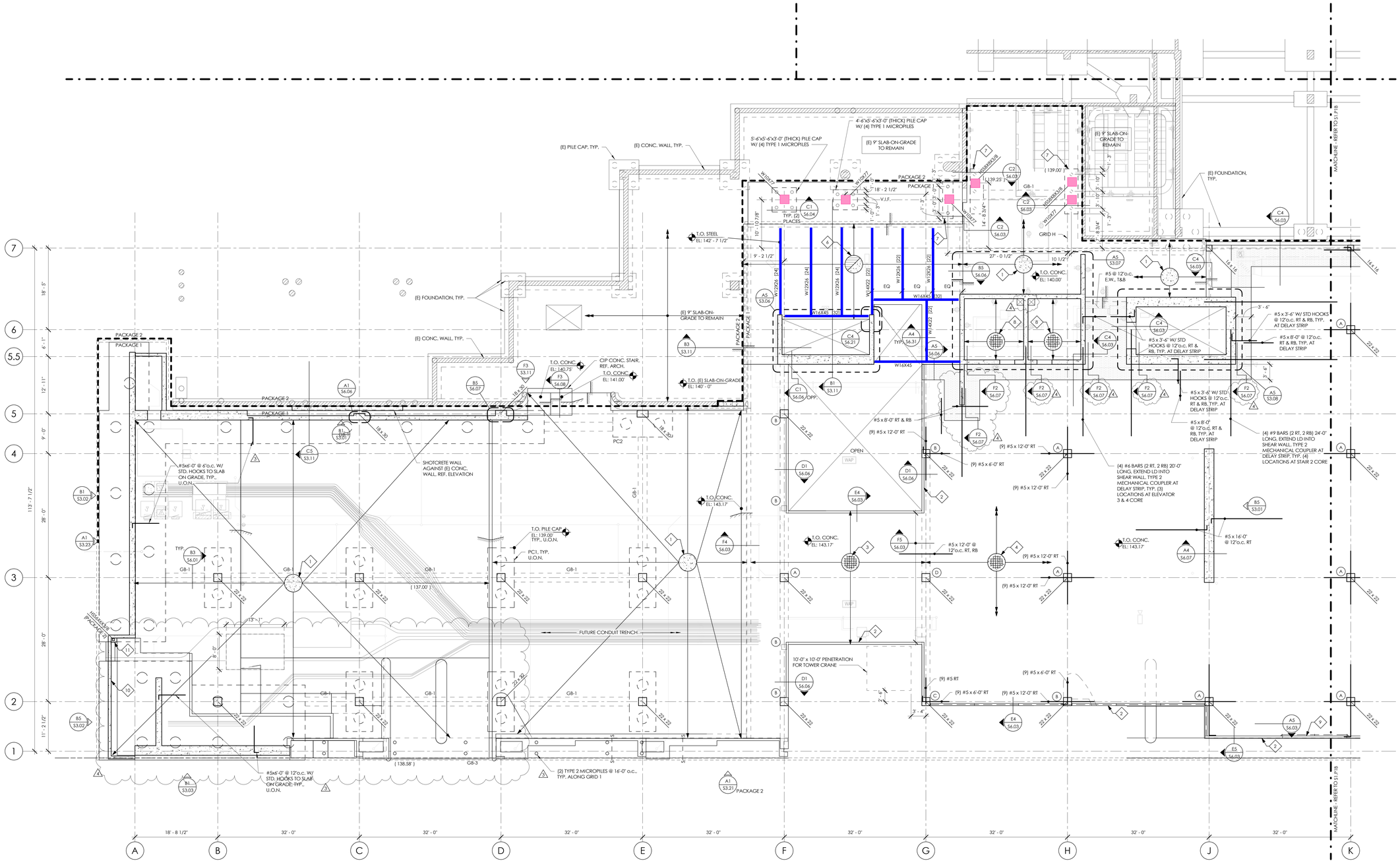
UL D902 - 2Hr Floor Deck - No Fireproofing Required
- UL N759 - 2Hr Floor Beams
- W12 x 026 - 7/8"
- W14 x 022 - 15/16"
- W16 x 045 - 3/4"
- .UL X790 3Hr Columns
- HSS 08x08x3/8 - 1 9/16"
- W10 x 077 -1 7/16"

KEYED NOTES:

1. 6" CONCRETE SLAB-ON-GRADE W/ #5 @ 16"o.c. EACH WAY MID-DEPTH. REFER TO ARCH. SLAB PLANS FOR TOP OOF SLAB ELEVATIONS, U.O.N. [PACKAGE 2]
2. 6" CONCRETE WALL W/ #4 @ 12"o.c. EACH WAY CENTERED; REFER TO ARCHITECTURAL DRAWINGS FOR TOP OF WALL ELEVATION: 4'-0" MAX. ABOVE T.O. SLAB.
3. 12" MILD CONCRETE SLAB W/ #8 @ 12"o.c. EACH WAY, TOP AND BOTTOM; DELAY POUR UNTIL 60 DAYS AFTER PT SLAB HAS BEEN STRESSED.
4. 9" PT SLAB (UNBONDED) W/ #5 @ 24"o.c. EACH WAY BOTTOM.
5. CONCRETE CURB; REFER TO ARCHITECTURAL DRAWINGS FOR SIZE, LOCATION, AND CONFIGURATION; REFER TO E4/S6.01
6. W2.16 GA. METAL DECK WITH 4 1/2" CONCRETE TOPPING W/ #4 @ 12"o.c. EACH CENTERED IN TOPPING SLAB.
7. 3'-0" THICK PILE CAP W/ (3) TYPE 1 MICROPILES
8. 24" MILD CONCRETE SLAB W/ #9 @ 12"o.c. EACH WAY, TOP AND BOTTOM
9. VERHICLE BARRIER CABLES DESIGNED BY OTHERS, SEE DETAIL A5/S6.03 FOR ANCHORAGE TO CONCRETE WALLS AND C5/S6.03 FOR ANCHORAGE TO COLUMNS.
10. 6" CONCRETE STEM WALL WITH #5 @ 12"o.c. EACH WAY CENTERED IN THE WALL
11. 16"x16" CONCRETE PILASTER WITH (4) #6 VERTICAL BARS AND #4 HOOPS @ 6"o.c.

PLAN NOTES:

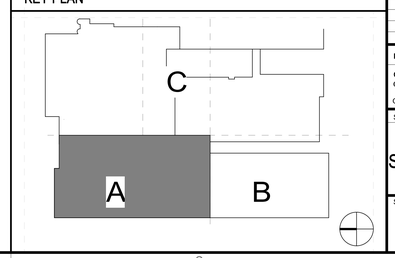
1. REFER TO SHEET S0.01 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.02 FOR SYMBOLS & ABBREVIATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT GIVEN.
3. VERIFY ALL ASPECTS OF WORK INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS, SLOPES, AND DRAINS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
4. VERIFY MECHANICAL EQUIPMENT LOCATIONS AND MOUNTING DETAILS WITH MECHANICAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. REFER TO SHEET S5.01 FOR PILE GROUP PLANS AT SHEAR WALLS.
6. INDICATES 30"Ø AUGER CAST PILE U.O.N., REFER TO A5/S6.01
7. GB INDICATES GRADE BEAM, REFER TO B2/S6.02
8. (X.XX') INDICATES TOP OF PILE CAP ELEVATION: UNLESS OTHERWISE NOTED TOP OF FOOTINGS SHALL BE SET 1'-6" BELOW LOWEST ADJACENT SLAB OR FINISH GRADE.
9. S — — S INDICATES SUGGESTED LOCATION OF STEP IN FOOTING/ PILE CAP (AT TOP OF FOOTING/PILE CAP), REFER TO B1/S6.01
10. T.O. SLAB XXX.XX' INDICATES TOP OF SLAB-ON-GRADE ELEVATION.
11. INDICATES STEP IN ELEVATION, U.O.N. REFER TO A6/S6.01
12. C.J. INDICATES CONTROL/CONSTRUCTION JOINT IN SLAB-ON-GRADE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT; REFER TO C6/S6.01
13. X x X INDICATES COLUMN TYPE. REFER TO D3/S6.01
14. X INDICATES STUD RAIL. REFER TO G4/S6.02
15. RT INDICATES P.T. SLAB TOP REINFORCING; PROVIDE STANDARD HOOK FOR TOP BARS AT SLAB EDGES.
16. RB INDICATES P.T. SLAB BOTTOM REINFORCING IN ADDITION TO UNIFORM MAT NOTED ON PLAN.
17. REFER TO DETAIL C5/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO WIDE FLANGE BEAM CONNECTION DETAIL.
18. REFER TO DETAIL C4/S6.21 FOR TYPICAL WIDE FLANGE BEAM TO CONRETE WALL DETAIL.
19. [XX] INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED ALONG BEAM LENGTH; REFER TO D6/S6.31
20. [X-X-X] INDICATES NUMBER OF 3/4"Ø x 4 1/2" HEADED STUDS EVENLY DISTRIBUTED BETWEEN WF BEAMS ON WF GIRDERS; REFER TO D3/S6.31
21. c = x" INDICATES UPWARD CAMBER AT MID-SPAN.
22. INDICATES WELDED MOMENT CONNECTION; REFER TO C2/S6.21
23. INDICATES A DELAY STRIP. SEE DETAIL C4/S6.03



A1 FOUNDATION & SLAB PLAN LEVEL P1 - SECTOR A

1/8" = 1'-0"

KEY PLAN



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ELEVATORS:
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PROJECT NAME

LEGACY HEALTH
LEGACY EMANUEL MEDICAL CENTER
PORTLAND, OR

EMANUEL WEST CORE & SHELL

PHASE
CONSTRUCTION DOCUMENTS

STRUCTURAL PROFESSIONAL ENGINEER REGISTRATION NUMBER 19900 STATE OF OREGON DAVID A. THOMPSON
2018.02.27
EXPIRES: 12/31/2018

ALL INFORMATION ON THIS SHEET IS PART OF PACKAGE #1 UNLESS OTHERWISE NOTED

SHEET ISSUED: 09/22/17

REVISIONS

MARK	DATE	DESCRIPTION
4	2018.03.02	PKG2 PERMIT
3	2018.02.20	Change Proposal
2	2017.11.10	Addendum 4
1	2017.10.02	Addendum 1

PROJECT NO. 101333.00

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

ORIGINAL SHEET SIZE 36" X 48"

SHEET TITLE
FOUNDATION AND SLAB PLAN P1 SECTOR A

SHEET NUMBER
S1.P1A

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