Kindred UC Davis Healthcare Rehabilitation Hospital
Location: Corner of Broadway and 49th Street, Sacramento

Project: UC Davis Rehabilitation Hospital, Sacramento, CA
Architect: Taylor Design
Main Contractor: McCarthy
Ceiling Contractor: Nevell Group
Ceiling Manufacturer: USG®
Product Featured: Donn® Brand AdvanceSpan™
Seismic Bracing Product: GRIDLOK® from www.bracelok.com

Press announcement on this project: https://health.ucdavis.edu/news/headlines/new-rehabilitation-hospital-project-begins/2021/04

Ceiling project description

USG Grid was selected for conventional grid, and for the corridors USG Advancespan™ was used.

Advancespan™ is specifically designed for crowded corridors and has an HCAI (OSHPD) OPM preapproval.

Advancespan™ was developed for the crowded interstitial space in corridors as it is often impossible to get wires installed. The main beam across the corridor is significantly heavier than conventional heavy-duty grid.

Advancespan™ requires no wires, if installed at 24" O.C. in Corridors less than 8'6" wide.

If mains are installed @ 48" O.C. in Corridors less than 8'-6" wide, a single wire is required every 7'-6" anywhere on the main runner at least 12" from either wall.

Advancespan™ grid uses 1" C mold which eliminates the 2" wall angle shown in HCAI's OPD detail CL2.50. It also eliminates pop rivets using the US44C clips. It requires just a compression post and a single brace on the main runner.

For seismic bracing, GRIDLOK® was used. **It is the only product that has an HCAI OPM for use with Advancespan®.**

HCAI's OPD detail CL3.10 only allows compression post placement centered on the cross tee, which does not allow for the 2 (ea.) ¼" DIA machine bolts where light fixtures occur. This leads to a requirement for additional compression posts or light fixtures being relocated.

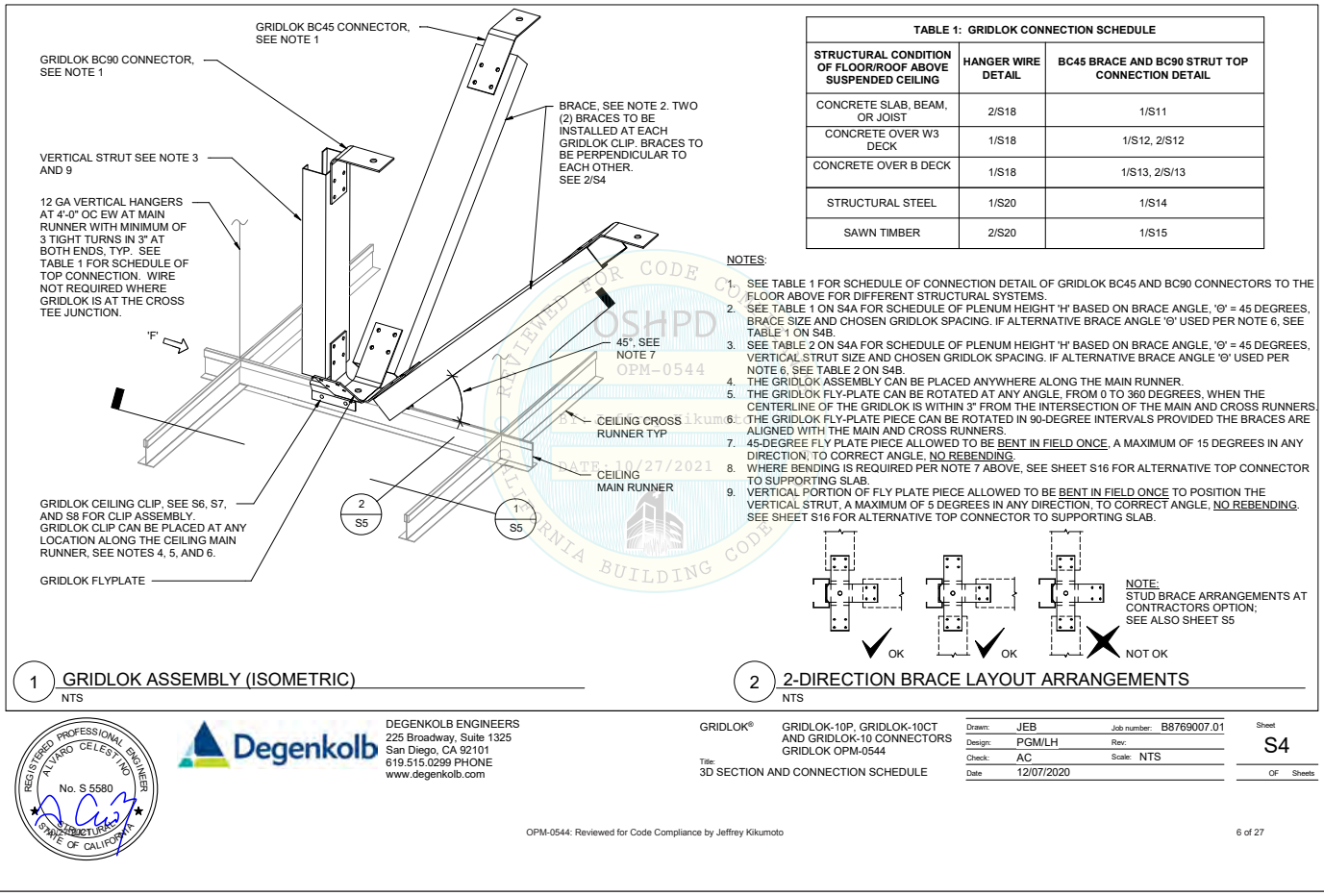
At this site, GRIDLOK® was used for both the corridors and the remainder of the building where conventional grid was installed. More details about GRIDLOK® can be found at **www.bracelok.com**

1/2023

Following are some photos of GRIDLOK® installed with Advancespan™ and in with conventional grid at the Kindred/UC Davis site:

Advancespan™ installed in corridor at Kindred/UC Davis Sacramento.

GRIDLOK® installed with Advancespan™ showing the compression post and one brace.



1 GRIDLOK ASSEMBLY (ISOMETRIC)
NTS

TABLE 1: GRIDLOK CONNECTION SCHEDULE		
STRUCTURAL CONDITION OF FLOOR/ROOF ABOVE SUSPENDED CEILING	HANGER WIRE DETAIL	BC45 BRACE AND BC90 STRUT TOP CONNECTION DETAIL
CONCRETE SLAB, BEAM, OR JOIST	2/S18	1/S11
CONCRETE OVER W3 DECK	1/S18	1/S12, 2/S12
CONCRETE OVER B DECK	1/S18	1/S13, 2/S/13
STRUCTURAL STEEL	1/S20	1/S14
SAWN TIMBER	2/S20	1/S15

NOTES:

1. SEE TABLE 1 FOR SCHEDULE OF CONNECTION DETAIL OF GRIDLOK BC45 AND BC90 CONNECTORS TO THE FLOOR ABOVE FOR DIFFERENT STRUCTURAL SYSTEMS.
2. SEE TABLE 1 ON S4A FOR SCHEDULE OF PLENUM HEIGHT 'H' BASED ON BRACE ANGLE, 'Θ' = 45 DEGREES, BRACE SIZE AND CHOSEN GRIDLOK SPACING. IF ALTERNATIVE BRACE ANGLE 'Θ' USED PER NOTE 6, SEE TABLE 1 ON S4B.
3. SEE TABLE 2 ON S4A FOR SCHEDULE OF PLENUM HEIGHT 'H' BASED ON BRACE ANGLE, 'Θ' = 45 DEGREES, VERTICAL STRUT SIZE AND CHOSEN GRIDLOK SPACING. IF ALTERNATIVE BRACE ANGLE 'Θ' USED PER NOTE 6, SEE TABLE 2 ON S4B.
4. THE GRIDLOK ASSEMBLY CAN BE PLACED ANYWHERE ALONG THE MAIN RUNNER.
5. THE GRIDLOK FLY-PLATE CAN BE ROTATED AT ANY ANGLE, FROM 0 TO 360 DEGREES, WHEN THE CENTERLINE OF THE GRIDLOK IS WITHIN 3" FROM THE INTERSECTION OF THE MAIN AND CROSS RUNNERS.
6. THE GRIDLOK FLY-PLATE PIECE CAN BE ROTATED IN 90-DEGREE INTERVALS PROVIDED THE BRACES ARE ALIGNED WITH THE MAIN AND CROSS RUNNERS.
7. 45-DEGREE FLY PLATE PIECE ALLOWED TO BE BENT IN FIELD ONCE, A MAXIMUM OF 15 DEGREES IN ANY DIRECTION, TO CORRECT ANGLE, NO REBENDING.
8. WHERE BENDING IS REQUIRED PER NOTE 7 ABOVE, SEE SHEET S16 FOR ALTERNATIVE TOP CONNECTOR TO SUPPORTING SLAB.
9. VERTICAL PORTION OF FLY PLATE PIECE ALLOWED TO BE BENT IN FIELD ONCE TO POSITION THE VERTICAL STRUT, A MAXIMUM OF 5 DEGREES IN ANY DIRECTION, TO CORRECT ANGLE, NO REBENDING. SEE SHEET S16 FOR ALTERNATIVE TOP CONNECTOR TO SUPPORTING SLAB.

NOTE:
STUD BRACE ARRANGEMENTS AT CONTRACTORS OPTION;
SEE ALSO SHEET S5

2 2-DIRECTION BRACE LAYOUT ARRANGEMENTS
NTS

REGISTERED PROFESSIONAL ENGINEER ALVARO CELESTINO No. S 5580 STATE OF CALIFORNIA

Degenkolb

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GRIDLOK® GRIDLOK-10P, GRIDLOK-10CT AND GRIDLOK-10 CONNECTORS GRIDLOK OPM-0544

Title: 3D SECTION AND CONNECTION SCHEDULE

Drawn:	JEB	Job number:	B8769007.01
Design:	PGM/LH	Rev:	
Check:	AC	Scale:	NTS
Date	12/07/2020		

Sheet S4 OF Sheets

OPM-0544: Reviewed for Code Compliance by Jeffrey Kikumoto

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When used with conventional grid GRIDLOK® can be placed **anywhere along the main grid and rotates 360 degrees**, for maximum flexibility in choosing the landing location of braces. GRIDLOK® has just three connections to the deck as opposed to the five wires and post in HCAI's OPD detail. No more trapezes! No more broken ceiling tiles caused by bolts protruding through the post.

Consistent, quality installs reduce interstitial clutter at a lower cost, and assists other trades to complete their work on time and provides easier access for the end user and building maintenance.

GRIDLOK® when used with Advancespan™ **requires only two connections** to the grid, a post and a single brace.

GRIDLOK® is a rigid bracing solution, originally developed in highly seismic New Zealand. It's OPM preapproval is for all Armstrong®, CertainTeed® and USG® heavy duty grid and is now used extensively in both HCAI and California DSA projects.

GRIDLOK® installed with conventional grid at Kindred/UC Davis using a post and two braces.