

Reference List of Earthquake strengthening Industrial and high-rise buildings Bridges

Innovative Strengthening of Structures with
post-tensioned CFRP plates

Tensioning System StressHead-CarboStress

2022

Project	Reason for strengthening	Client	Year
Earthquake strengthening			
Bâtiment APEMS, Prilly (CH)	Earthquake strengthening of masonry	BG Engineers Ltd	2022
Agency Mobilier, Belp (CH)	Earthquake strengthening of masonry	Die Mobilier AG	2022
High Mountain Clinic, Davos (CH)	Earthquake strengthening of masonry and closing of building separation joints	Kühne Real Estate AG	2021
Apartment building Zelglistr, Dietikon (CH)	Earthquake strengthening of masonry	Anlagestiftung Migros-Pensionskasse	2021
Aeschenvorstadt 56, Basel (CH)	Earthquake strengthening of concrete	Credit Suisse AG	2021
Pumping station, Hettlingen (CH)	Earthquake strengthening of aerated concrete stone walls	Municipality of Hettlingen	2021
Shopping mall, Mels (CH)	Earthquake strengthening, closing of building separation joints	Credit Suisse AG	2021
Leuenhof, Zürich (CH)	Earthquake strengthening of concrete slabs	Swiss Prime Anlagestiftung	2020
Fluhmattstrasse 12, Luzern (CH)	Earthquake strengthening of masonry	Konstruktiv GmbH	2020
Aeschenvorstadt 56, Basel (CH)	Earthquake strengthening of concrete	Credit Suisse AG	2019
Monbijoustreet 114, Bern (CH)	Earthquake strengthening of masonry	SMT Engineers Ltd	2019
Limmattalstreet 400, Zurich (CH)	Earthquake strengthening of concrete walls	Immobilien Ltd	2019
School building Ried, Muotathal (CH)	Earthquake strengthening of masonry	Community Muotathal	2019
Irchelstreet 2, Zurich (CH)	Earthquake strengthening of masonry	Caprez Engineers Ltd	2018
Retirement Home, Herisau (CH)	Earthquake strengthening of masonry	Foundation care of elderly, Herisau	2017
Control Center armasuisse, Emmen (CH)	Earthquake strengthening of masonry	armasuisse	2017
Housing development, Goldach (CH)	Earthquake strengthening of masonry	Credit Suisse Real Estate Investment Management	2017
Bank building UBS, Altstetten ZH (CH)	Earthquake strengthening in elevator shaft	UBS AG Zürich	2017
Housing development, Dübendorf (CH)	Earthquake strengthening of masonry	Credit Suisse Real Estate Investment Management	2017
School building Wasgenring, Basel (CH)	Earthquake strengthening of concrete walls	Building Department canton Basel-City	2017
Bank for International Settlements BIS, Basel (CH)	Earthquake strengthening of concrete walls	Bank for International Settlements BIS	2017
Lonza Visp, Valais (CH)	Earthquake strengthening of concrete walls	Lonza AG	2016
TRUK Boltigen, Bern (CH)	Earthquake strengthening of masonry	armasuisse	2016
Stapfenstreet, Bern Bümpliz (CH)	Earthquake strengthening of precast concrete slabs	Housing and building cooperative Bümpliz	2015/16
Housing development, Horgen (CH)	Earthquake strengthening of concrete walls	Careal Holding Pensionskasse	2015

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Housing development, Winterthur (CH)	Earthquake strengthening of masonry	Strabag AG	2015
Housing development Fellergut, Bern (CH)	Earthquake strengthening of concrete walls	Weiss+Appetito AG	2015
CS Uetlihof 1, Zurich (CH)	Earthquake strengthening of concrete walls	Credit Suisse	2015
Talgarten, Zurich (CH)	Earthquake strengthening of masonry	ASIG housing cooperative	2015
Highrise building, Bern Bümpliz (CH)	Earthquake strengthening of precast concrete slabs	Railway Building cooperative Bern	2014/15
Hospital, Aarau (CH)	Earthquake strengthening of coupling joint	Hospital Aarau AG	2014
Secondary school, Zurich (CH)	Earthquake strengthening of concrete walls	Municipality of Zurich	2014
Armory, Thun (CH)	Earthquake strengthening of concrete walls	Swiss Army	2013
Hospital, Aarau (CH)	Earthquake strengthening of coupling joint	Hospital Aarau AG	2013
Highrise Agrisano, Windisch (CH)	Earthquake strengthening of concrete walls	Health Insurance Agrisano	2013
Secondary school, Laufen (CH)	Earthquake strengthening of concrete walls	Building Department City of Lucerne	2013
Coop Wallisellenstrasse, Zurich (CH)	Earthquake strengthening of masonry	COOP Basel	2012/13
Roche Bldg.27, Basel (CH)	Earthquake strengthening of masonry	Hoffmann La Roche AG	2012
Weihermatt care home, Urdorf (CH)	Earthquake strengthening of masonry	Municipality of Urdorf	2012
Falkenstein care home, Basel (CH)	Earthquake strengthening of concrete walls	City of Basel	2011
Käfergrund 41/43/45, Aarau (CH)	Earthquake strengthening of masonry	Credit Suisse	2011
Aarmatt pumping station, Zuchwil (CH)	Earthquake strengthening of concrete walls	Regio Energie Solothurn	2010
Regio Energie HQ, Solothurn (CH)	Earthquake strengthening of masonry	Regio Energie Solothurn	2010
Agrisano office building, Windisch (CH)	Earthquake strengthening of concrete walls	Agrisano Health Insurance	2010
Community hall, Langendorf (CH)	Earthquake strengthening in lift shaft	Municipality of Langendorf	2010
Upper Valais hospital, Visp (CH)	Earthquake strengthening of concrete walls	Building Department Canton Valais	2009
Housing development Kürberg, Zürich (CH)	Earthquake strengthening of masonry	Halter AG, Zurich	2008
Wasgenring substation, Basel (CH)	Earthquake strengthening of concrete walls	IWB Indust. Werke Basel	2006
Gösgen nuclear power station, Däniken (CH)	Earthquake strengthening of cooling water tank	Kernkraftwerk Gösgen AG	2004
Fire station, Visp (CH)	Earthquake strengthening of masonry	Municipality of Visp	2002
Lucerne cantonal police, Lucerne (CH)	Earthquake strengthening of concrete walls	Building Department City of Lucerne	2000

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Industrial and high-rise buildings			
Fresh water tank, Tel Aviv (ISR)	Closing cracks, replace missing reinforcement	Binyan Haaretz	2020
Railway station Bern, Bern (CH)	Concrete wall strengthening	SBB AG, real estate	2019
Tibits Restaurant, Bern (CH)	Deck strengthening	SBB AG, real estate	2018
Casino, Vienna (A)	Deck strengthening, removing column	Casinos Austria	2016
Secondary school Winterthur (CH)	Deck strengthening due to damaged prestressing	Municipality of Zurich	2014
Meat processor Meinen, Bern (CH)	Downstand strengthening	Meinen AG, Bern	2013
Park Hotel, Vitznau (CH)	Deck strengthening	Park Hotel Vitznau	2012
Burstwiesenstrasse, Zurich (CH)	Downstand strengthening	Wincasa AG, Winterthur	2010
Police building, Crans-Montana (CH)	Masonry strengthening		2008
Extension to Similasan, Jonen (CH)	Floor opening (lift)	Similasan AG, Jonen	2007
Reussmatten development, Sins (CH)	Shear reinforcement		2006
Conversion to Lacoste, Basel (CH)	Deck strengthening due to conversion	Lacbal SA	2005
Leutschenbach, Zurich (CH)	Deck strengthening due to stormwater tank	ARGE Leutschenbach	2005
VEBO multi-use building, Oensingen	Deck strengthening due to damaged prestressing	VEBO Oensingen	2004
Holcim AG, Würenlingen (CH)	Silo strengthening	Sika Services AG	2004
Auto Rondo, AMAG Zug (CH)	Downstand strengthening for wall penetration	AMAG Zug AG	2003
Aupoint Brandstetter, Salzburg (A)	Hall roof truss strengthening due to fire damage	Brandstetter GmbH	2003
Thurgauerhof, Weinfelden (CH)	Shear strengthening of concrete beams	Hotel Thurgauerhof	2003
Audi plant Hungary, Győr (H)	Sealing of expansion and movement gaps	Audi Hungary	2002
CS communications centre, Horgen (CH)	Strengthening of masonry and roof trusses	Credit Suisse, Zurich	2002
Shopping centre, Emmen (CH)	Strengthening of stairwell cores	Maus Frères SA	2001
Paper plant, Perlen (CH)	Façade underpinning with column removal	Perlen Papier AG	2000
Orly Center, Amsterdam (NL)	Needle beam strengthening in façade area	Orly Center AG	2000

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Bridges			
Railway bridge, Strbske Pleso (SVK)	Additional pay load	ŽSR - Railways of the Slovak Republic	2022
Puente Manantiales, Ensenada (MX)	Temporary increase of pay load	CECCVIT	2022
3 Railway bridges, Tatranská Štrba (SVK)	Additional pay load	ŽSR - Railways of the Slovak Republic	2021
Bridge R.N.7, Pontcharra-sur-Turdine (F)	Prestressing cable replacement	DIR Centre-Est	2018
Sandacher Bridge, Spreitenbach (CH)	Strengthening of coupling joint	Swiss Railway SBB, ASTRA	2015 till 2017
Cavan Bridge (IRL)	Bending strengthening	John Cradock Ltd	2016
Semuy Bridge, Ardennes (F)	Bridge girder strengthening	Dép. Ardennes	2016
Bridge Exit N29, Qatar (QA)	Strengthening of web due to damaged prestressing cable	Public Works Authority of Qatar (Ashghal)	2015
Bridge, China (CHN)	Train bridge girder strengthening	via Sika Services AG	2014
Fortified Bridge Hagneck Biel (CH)	Prestressing cable replacement	BKW FMB Energie AG	2014
Bridge, China (CHN)	Train bridge girder strengthening	via Sika Services AG	2013
Commonwealth Bridge, Singapore (SIN)	Bridge stringer strengthening	VSL International AG	2008
Tschingeley Bridge, Grindelwald (CH)	Bridge strengthening and repair	Municipality of Grindelwald	2007
Stegweid Bridge, Spiez (CH)	Bridge cross beam shear strengthening	Ct. of Berne Civ.Eng. Dept.	2006
Bridge, China (CHN)	Bridge stringer strengthening	via Sika Services AG	2004
Bridge, Holland (NL)	Bridge stringer strengthening	via Sika Services AG	2004
Ländten Bridge, Biel (CH)	Bridge stringer strengthening for bending and shear	City of Biel Civ.Eng. Dept.	2004
Clinton & Hopkins Bridge, Ohio (USA)	Bridge stringer strengthening	State of Ohio, Dept. of Transportation	2003
Hütten Bridge, Werthenstein (CH)	Bridge stringer strengthening for bending and shear	Ct. of Lucerne Dept. of Agriculture	2003
Sung San Bridge, Seoul (KOR)	Bridge deck strengthening, longitudinal	Western Roads & Bridges Maintenance Office Seoul	2002
A3 Escher Canal Bridge, Glarus (CH)	Bridge deck strengthening, transverse	Ct. of Glarus Civ.Eng. Dept.	2002
A4 Reuss Bridge, Flüelen (CH)	Cross beam strengthening	Ct. of Uri Civ.Eng. Dept.	1999