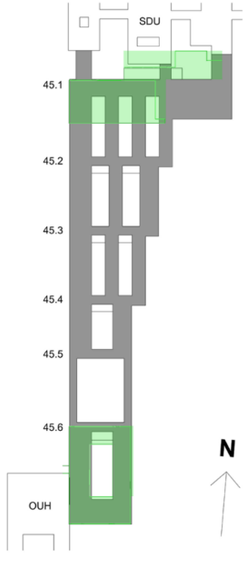
Utilization of Temporary Construction Items

Automated Dashboard for data visualization

Project Information

Project Name:	Nyt SDU SUND
Location:	Odense
Project Type:	Public, New Construction, Rural
Building Type:	Healthcare Science Faculty
Building Size:	50.740 m² brutto
Levels:	N-1, N00, N01, N02, N03
Building Sections:	45.1, 45.2, 45.3, 45.4, 45.5, 45.6



Content of the Dashboard

TCIs/PCIs

- TCI Information with specifications and quantitites
- PCI information with specifications and quantitites
- Location Slicer for PCIs

TCI Utilization

- TCI allocation over time
- Daily TCI quantities
- Daily TCI utilization compared to stock
- Comparison between static stock (current practice) and dynamic stock
- Cost information

TCI Tasks

- Gantt diagram, showing all tasks which involve TCIs
- TCI utilization time and timber filling per task
- TCI quantities per task and safety-risk-factor

TCITypes1

Formwork

TCITypes2

All

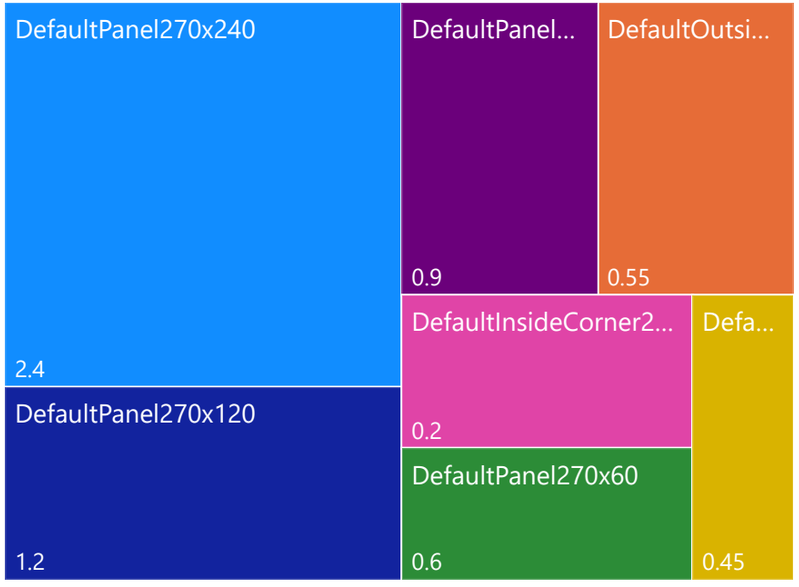
PCIType

All

PCI Instance

All

Primary TCI Elements



Assumed

ProductState

Wall

Supporting PCI Type

HIGH

Average SRF

PCI Quantities

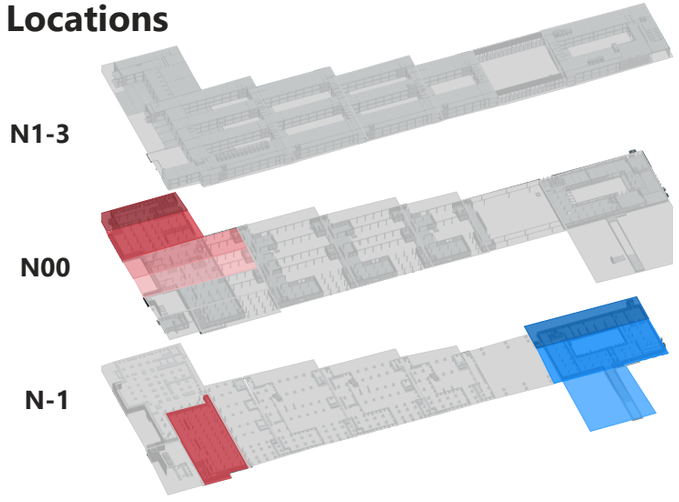
Wall
37

Vgy35
26

Vgy47
8

Vgy39
3

Locations



TCIs	Quantity	TCIType	State	Length	Height	Weight	EUR/d	SRF
DefaultCoupler	6440	SecFormwork	Assumed			4.58	0.00	MODERATE
DefaultInsideCorner270x20	43	PrimFormwork	Assumed	0.20	2.70	136.00	10.00	MODERATE
DefaultOutsideCorner270x55	43	PrimFormwork	Assumed	0.55	2.70	190.00	10.00	MODERATE
DefaultPanel270x120	68	PrimFormwork	Assumed	1.20	2.70	226.00	12.00	HIGH
DefaultPanel270x240	1352	PrimFormwork	Assumed	2.40	2.70	408.00	15.00	HIGH
DefaultPanel270x45	16	PrimFormwork	Assumed	0.45	2.70	99.80	10.00	MODERATE
DefaultPanel270x60	32	PrimFormwork	Assumed	0.60	2.70	118.00	10.00	MODERATE

ElementID	Length	Height	Area	Location	Rent[EUR/d]	TCI Count
2927861	70.94	4.88	346.69	45.1 kælder	1,800.00	1162
8582513	34.65	5.22	177.52	45.6c	1,760.00	1128
2937112	34.01	4.69	163.60	45.1e	1,680.00	1080
2938968	19.13	5.22	99.86	45.6c	1,016.00	680
2927852	35.39	4.88	148.45	45.1 kælder	920.00	608
3118666	32.69	5.08	163.03	45.6b	840.00	548
2927851	31.99	4.88	156.02	45.1 kælder	820.00	544
9117276	32.20	5.14	165.31	45.6c	820.00	526
8702647	29.10	5.14	141.70	45.6c	768.00	496
12215876	28.03	4.88	137.60	45.1 kælder	728.00	472
12260428	25.83	4.69	121.14	45.1f n	680.00	454

1/30/2020 11/11/2020

TCITypes1: Formwork

TCITypes2: All

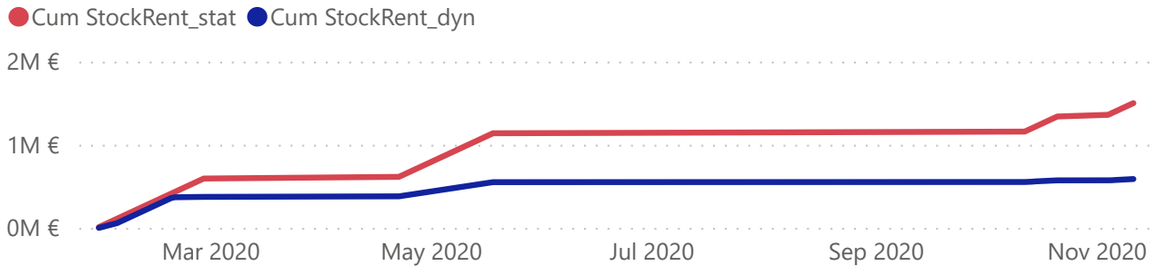
Total TCI Cost

598,922 €
Total StockRent_dyn

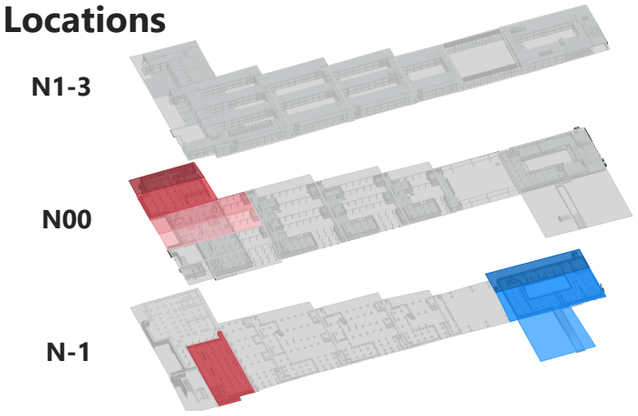
1,512,450 €
Total StockRent_stat

-913,528 €
Saving Potential (for spec. period)

Total TCI Cost



Locations

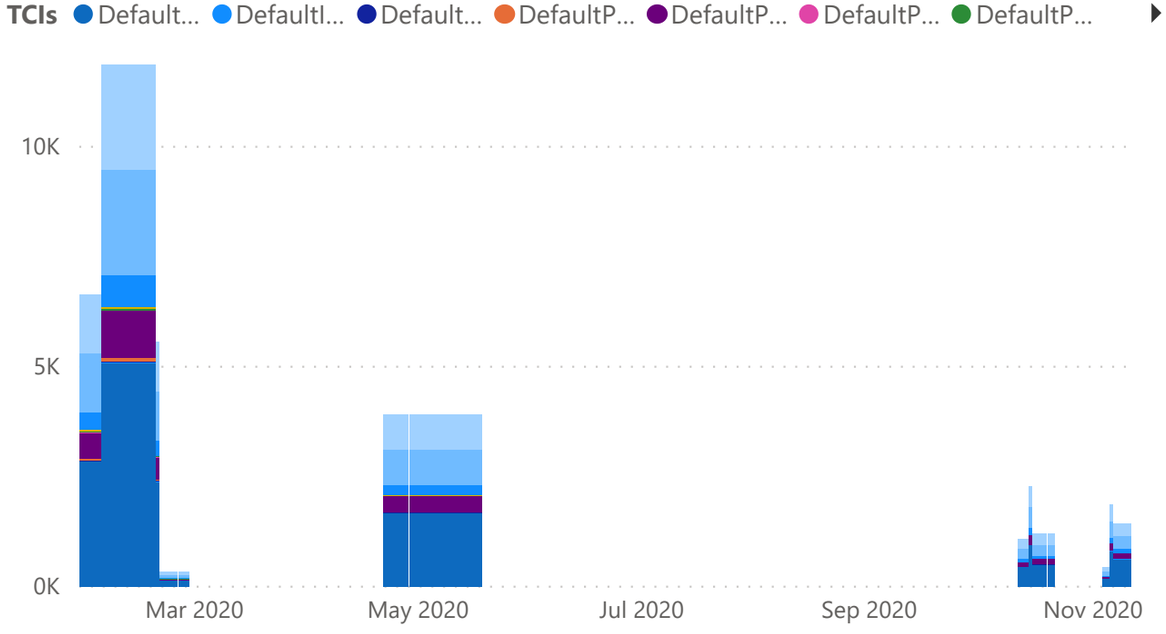


TCI Quantities (daily)

5/3/2020

TCIs	Quantity
DefaultWingnut	796
DefaultWaler	0
DefaultTieRod	796
DefaultPushPullProp	234
DefaultPanel270x90	16
DefaultPanel270x60	0
DefaultPanel270x45	4
DefaultPanel270x240	360
DefaultPanel270x120	8
DefaultOutsideCorner270x55	12
DefaultInsideCorner270x20	12
DefaultCoupler	1668

TCI Allocation

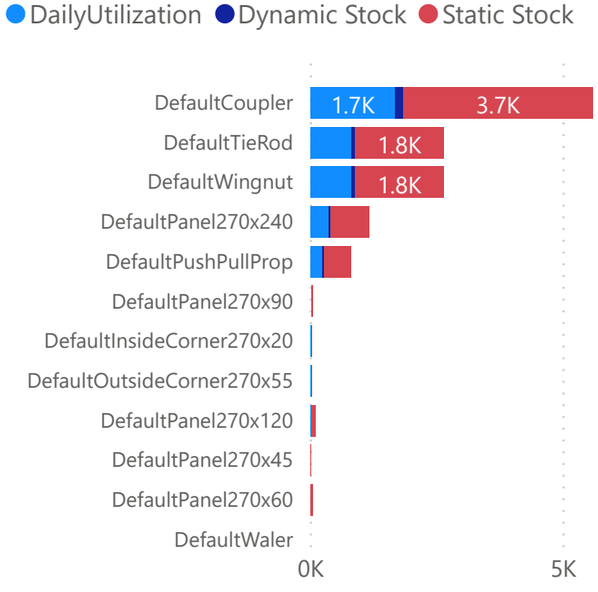


TCI Utilization & Remaining Stock

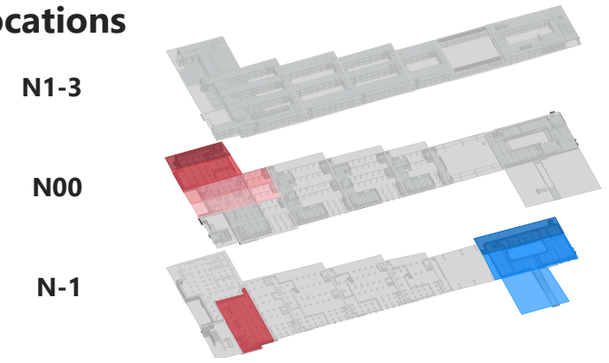
5/3/2020

90.82%
Utilization (dynamic)

29.89%
Utilization (static)



Locations



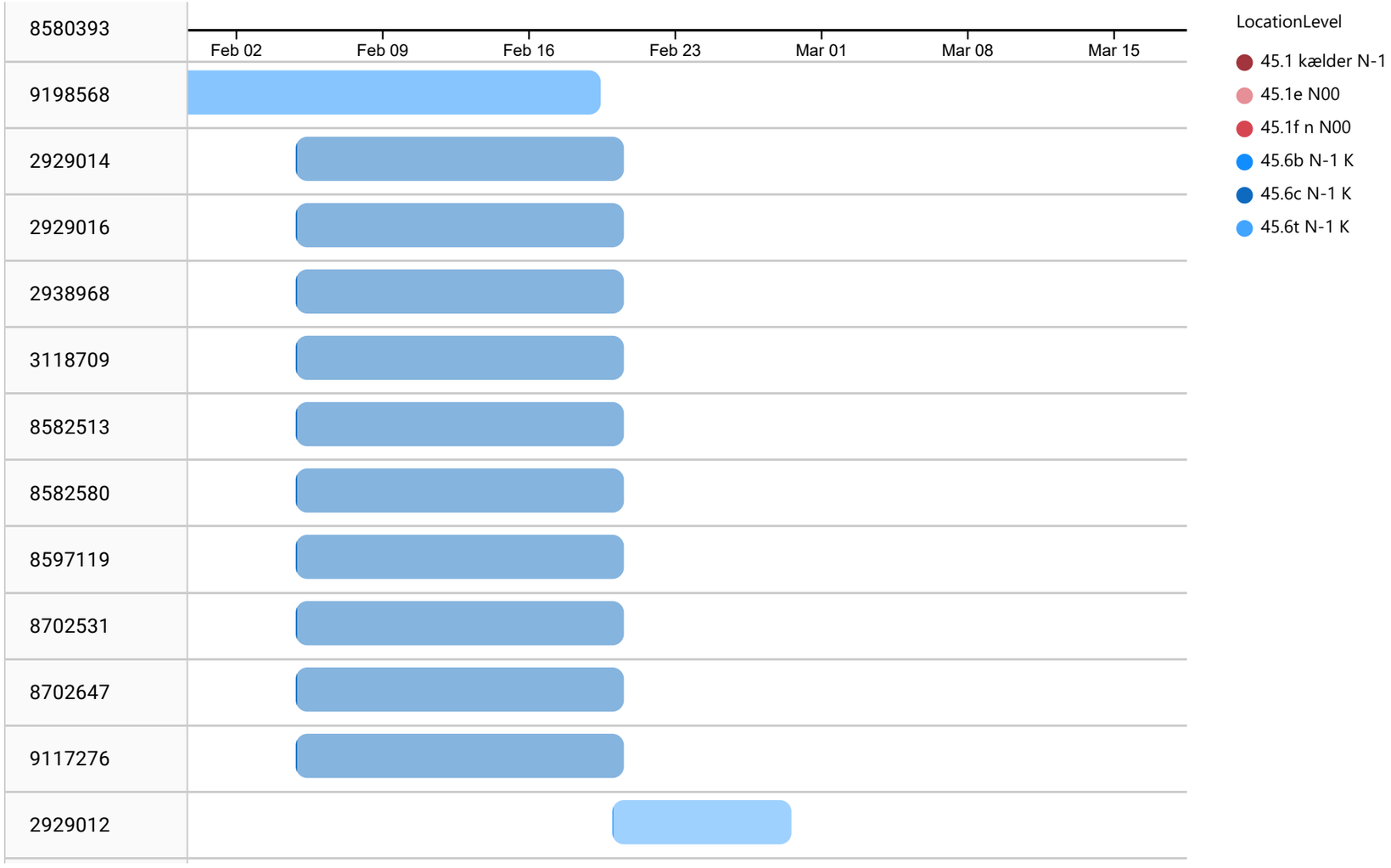
TCITypes1: Formwork

TCITypes2: All

1/30/2020 — 11/11/2020

Task	Install. [h]	Strip. [h]	Dismant. [h]	TF Count	TF Length
8580393	0.78	12	0.78	2	0.35
9152042	1.43	12	1.43	4	0.16
3171822	1.53	12	1.53	2	0.06
2929012	1.56	12	1.56	4	0.24
12503341	1.61	12	1.61	2	0.22
2927854	1.7	12	1.7	2	0.25

TCI Quantities and Safety-Risk-Factor

TCIs	Quantity	SRF
DefaultWingnut	3048	LOW
DefaultWaler	0	MODERATE
DefaultTieRod	3048	LOW
DefaultPushPullProp	920	LOW
DefaultPanel270x90	56	MODERATE
DefaultPanel270x60	32	MODERATE
DefaultPanel270x45	16	MODERATE
Total	**15066**	

Time Schedule with Progress Information