VA | U.S. Department of Veterans Affairs

Office of Construction & Facilities Management

SEPS+BIM

Space and Equipment Planning System
+
Building Information Modeling

VA | U.S. Department of Veterans Affairs

Office of Construction & Facilities Management

SEPS+BIM

A New Process for Using BIM and SEPS Together for Facility Planning and Design

Space and Equipment Planning System

VA | U.S. Department of Veterans Affairs

Department of Defense
Military Health System

Welcome to the Space and Equipment Planning System (SEPS)

You are accessing a U.S. Government (USG) Information System (IS) that is provided for USG-authorized use only. By using this IS (which includes any device attached to this IS), you consent to the following conditions:

- The USG routinely intercepts and monitors communications on this IS for purposes including, but not limited to, penetration testing, COMSEC monitoring, network operations and defense, personnel misconduct (PM), law enforcement (LE), and counterintelligence (CI) investigations.
- At any time, the USG may inspect and seize data stored on this IS.
- Communications using, or data stored on, this IS are not private, are subject to routine monitoring, interception, and search, and may be disclosed or used for any USG-authorized purpose.
- This IS includes security measures (e.g., authentication and access controls) to protect USG interests--not for your personal benefit or privacy.
- Notwithstanding the above, using this IS does not constitute consent to PM, LE or CI investigative searching or monitoring of the content of privileged communications, or work product, related to personal representation or services by attorneys, psychotherapists, or clergy, and their assistants. Such communications and work product are private and confidential. See User Agreement for details.

I Agree

VA | U.S. Department of Veterans Affairs

Department of Defense Military Health System

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SEPS - Project Administration [Project Builder]

Project: SEPS CLINIC IN LOS ANGELES (NEW CLINIC)
Department: DENTAL SERVICE (222)

General | Input Data Worksheet | Program for Design (PFD) | Contents | Documents | Permissions

1 of 1

Status	
Answered	1. Is a Panoramic / Cephalometric x-ray authorized? (M)
Answered	2. Is a Computerized Tomography (CT) Cone-Beam Room authorized? (M)
Answered	3. Is a Picture Archiving and Communication System (PACS) authorized? (M)
Answered	4. Is a Tele-health Room in the Dental Treatment Patient Area authorized? (M)
New	5. Is a Dental Surgery Suite authorized? (M)
New	6. Is a General Purpose Laboratory authorized? (M)
New	7. Is a Porcelain / Ceramics Laboratory authorized? (M)
New	8. Is a Maxillo-facial Laboratory authorized? (M)

A	E	I	J	K
Criteria Dept Name	Criteria FA Name	Room Code	Room Type Name	Criteria Room Name
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT / OUTPATIENT UNITS: RECEPTION AREAS	LOB01	LOBBY, SEATING AREA	Lobby
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT / OUTPATIENT UNITS: RECEPTION AREAS	RECP1	RECEPTION	Reception
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT / OUTPATIENT UNITS: RECEPTION AREAS	TLTU1	TOILET	Toilet, Visitor
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT / OUTPATIENT UNITS: RECEPTION AREAS	BX001	EXCHANGE, VENDING (EQUIPPED BY OTHERS)	Vending Area
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT UNIT: PATIENT AREAS	WRC01	WAITING	Sub Waiting
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT UNIT: PATIENT AREAS	BRPT1	Bedroom, PRC, 1 Bed	Patient Room, One Bed
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT UNIT: PATIENT AREAS	TLTS2	TOILET/SHOWER, INPATIENT	Bathroom, Patient
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT UNIT: PATIENT AREAS	TLTS2	TOILET/SHOWER, INPATIENT	Bathroom, Patient, Shower Litter
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT UNIT: PATIENT AREAS	BRPT2	Bedroom, PRC, Isolation, 1 Bed	Isolation Patient Room, One-Bed
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT UNIT: PATIENT AREAS	TLTS2	TOILET/SHOWER, INPATIENT	Isolation Bathroom, Patient
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT UNIT: PATIENT AREAS	BRAR1	ANTEROOM, ISOLATION, NEGATIVE PRESSURE	Isolation, Anteroom
POLYTRAUMA REHABILITATION			FOOD SERVICE, CAFETERIA DINING	

A	B	C	D
2 - RECEPTION AREA			
1 - WRC01 - Waiting			
JSN	Content Item	Agency	Qty
A5076	Dispenser, Hand Sanitizer, Free Standing	VA	1
A5210	Bracket, Television, Wall Mounted, w/Adjust Arm	VA	1
A5220	Bracket, Television, Wall Backing	VA	1
A6046	Artwork, Decorative, With Frame	VA	1
F0206	Chair, Side, Bariatric, With Arms	VA	1
F0305	Chair, Waiting Room, Single	VA	3
F2300	Rack, Magazine, Wall Mounted	VA	1
F2310	Rack, Pamphlet, Wall Mounted	VA	1
F3200	Clock, Battery, 12" Diameter	VA	1
M0515	Television, Plasma	VA	1
2 - PLAY1 - Playroom			
JSN	Content Item	Agency	Qty
A1010	Telecommunication Outlet	VA	1
A5210	Bracket, Television, Wall Mounted, w/Adjust Arm	VA	1
A5220	Bracket, Television, Wall Backing	VA	1
A6046	Artwork, Decorative, With Frame	VA	2
F0215	Chair, Child's	VA	4
F0305	Chair, Waiting Room, Single	VA	2
F0760	Table, Child's	VA	1
F2000	Basket, Wastepaper, Round, Metal	VA	1
F2045	Furniture, Playroom, Assorted	VA	1
F3200	Clock, Battery, 12" Diameter	VA	1
M0515	Television, Plasma	VA	1
3 - RECP1 - Reception			
JSN	Content Item	Agency	Qty
A1010	Telecommunication Outlet	VA	2
A1015	Telephone, Desk, Multiple Line	VA	2
A6105	Counter, Reception Control, Built-In	VA	1
F0275	Chair, Swivel, High Back	VA	1

SEPS to BIM Process

SEPS – Project Administration [Reports]

All Reports

- Program for Design
- Program for Design (Excel)
- Program for Design Summary
- Project Input Data Worksheet (Excel)
- Project Rooms
- Project Net to Gross Factors Summary
- Project User-Defined Room Types (Excel)
- Project vs. Criteria Report (Excel)
- Project Space Comparison (Excel)
- Project Change History (Excel)
- Project Room Contents
- Project Contents List (Excel)
- Project Co
- Project Co
- Project Co
- Project Co
- Project Us
- **Project Bl**
- Project PA

Export Project

A	E	I	J	K
Criteria Dept Name	Criteria FA Name	Room Code	Room Type Name	Criteria Room Name
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT / OUTPATIENT UNITS: RECEPTION AREAS	LOB01	LOBBY, SEATING AREA	Lobby
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT / OUTPATIENT UNITS: RECEPTION AREAS	RECP1	RECEPTION	Reception
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT / OUTPATIENT UNITS: RECEPTION AREAS	TLTU1	TOILET	Toilet, Visitor
POLYTRAUMA REHABILITATION CENTER (111)	INPATIENT / OUTPATIENT UNITS: RECEPTION AREAS	BX001	EXCHANGE, VENDING (EQUIPPED BY OTHERS)	Vending Area
POLYTRAUMA REHABILITATION CENTER (111)				
POLYTRAUMA REHABILITATI CENTER (111)				
POLYTRAUMA REHABILITATI CENTER (111)				
POLYTRAUMA REHABILITATI CENTER (111)				
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POLYTRAUMA REHABILITATI CENTER (111)				

A	B	C	D
	2 - RECEPTION AREA		
	1 - WRC01 - Waiting		
JSN	Content Item	Agency	Qty
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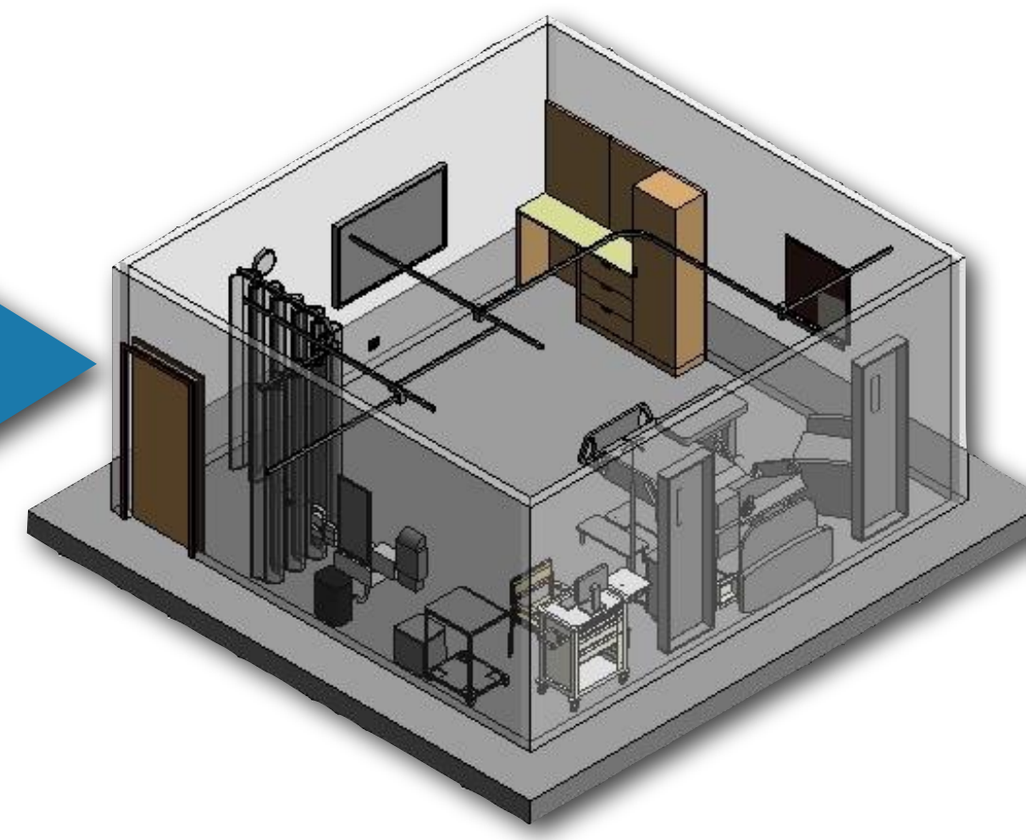
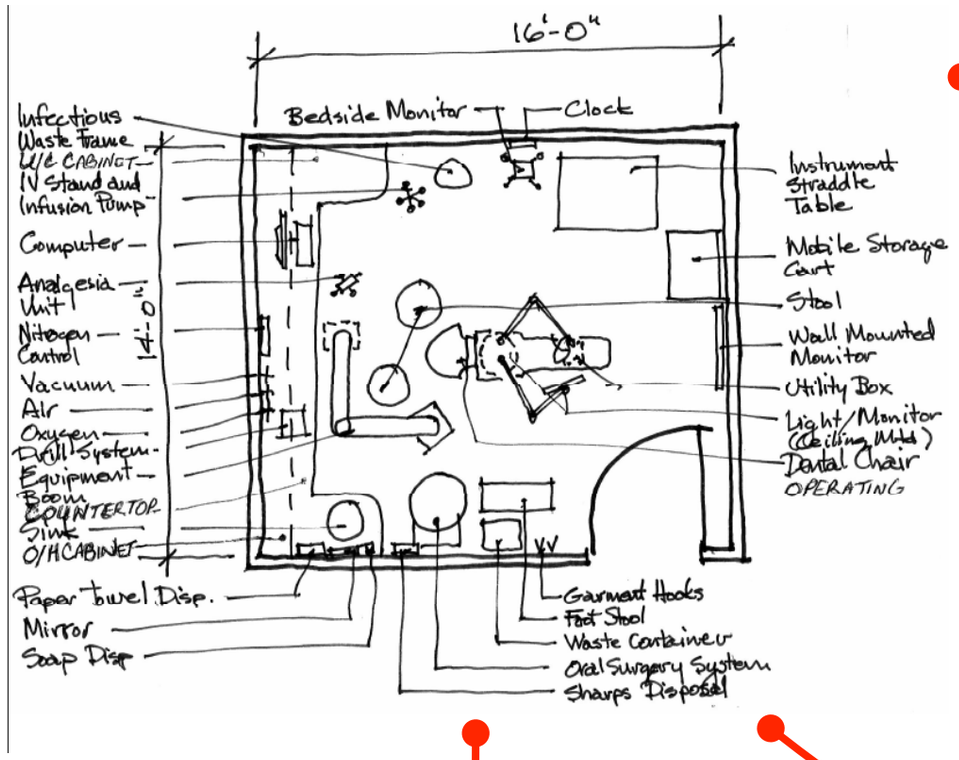
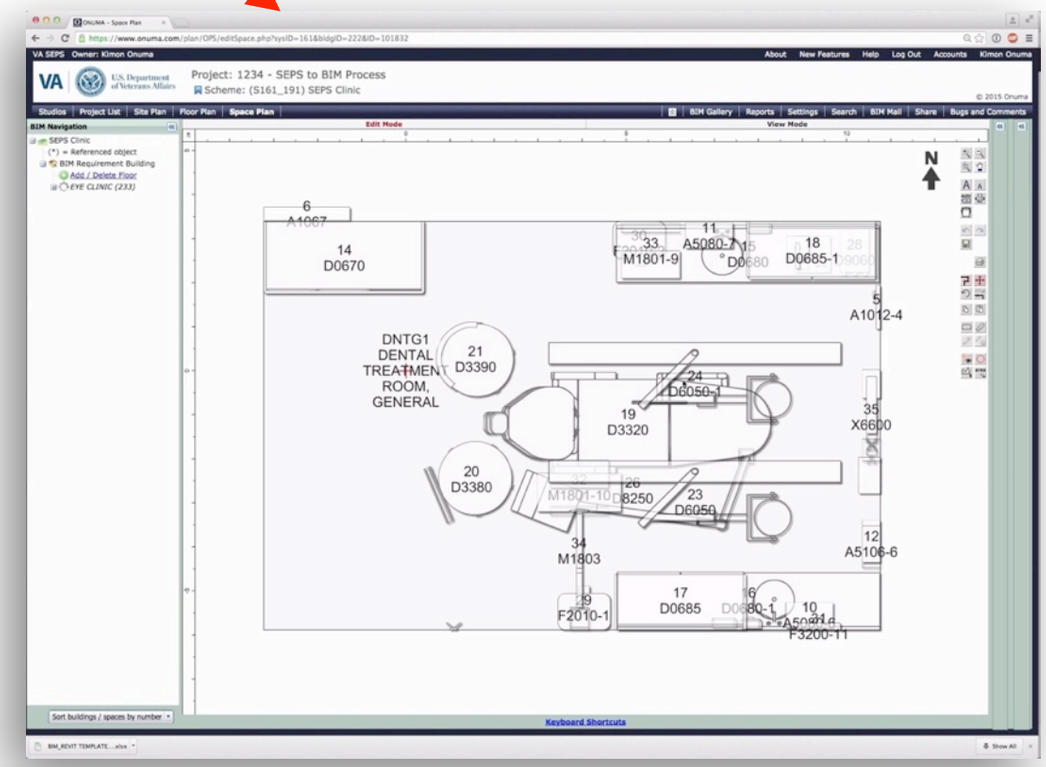
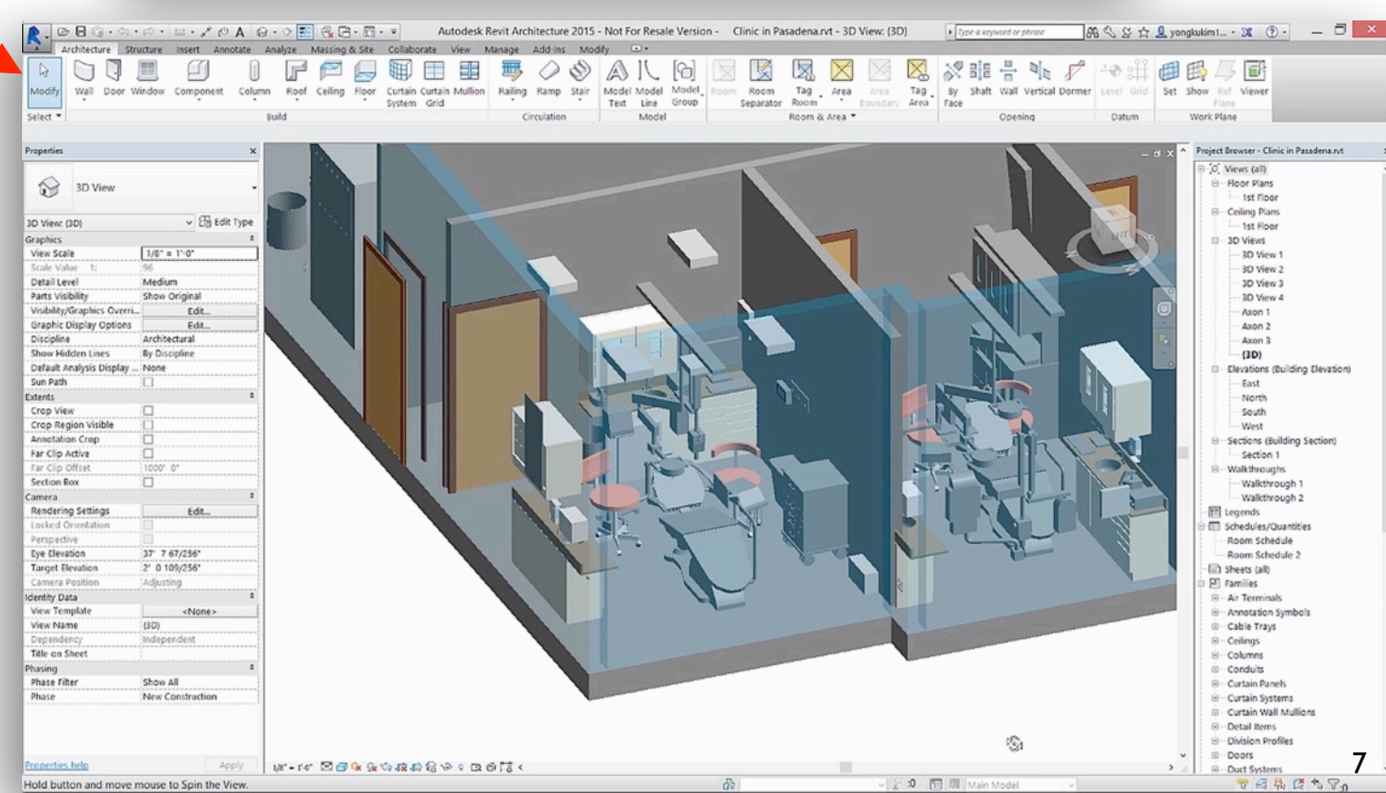
A5210	Bracket, Television, Wall Mounted, w/Adjust Arm	VA	1
A5220	Bracket, Television, Wall Backing	VA	1
A6046	Artwork, Decorative, With Frame	VA	1
F0206	Chair, Side, Bariatric, With Arms	VA	1
F0305	Chair, Waiting Room, Single	VA	3
F2300	Rack, Magazine, Wall Mounted	VA	1
F2310	Rack, Pamphlet, Wall Mounted	VA	1
F3200	Clock, Battery, 12" Diameter	VA	1
M0515	Television, Plasma	VA	1
	2 - PLAY1 - Playroom		
JSN	Content Item	Agency	Qty
A1010	Telecommunication Outlet	VA	1
A5210	Bracket, Television, Wall Mounted, w/Adjust Arm	VA	1
A5220	Bracket, Television, Wall Backing	VA	1
A6046	Artwork, Decorative, With Frame	VA	2
F0215	Chair, Child's	VA	4
F0305	Chair, Waiting Room, Single	VA	2
F0760	Table, Child's	VA	1
F2000	Basket, Wastepaper, Round, Metal	VA	1
F2045	Furniture, Playroom, Assorted	VA	1
F3200	Clock, Battery, 12" Diameter	VA	1
M0515	Television, Plasma	VA	1
	3 - RECP1 - Reception		
JSN	Content Item	Agency	Qty
A1010	Telecommunication Outlet	VA	2
A1015	Telephone, Desk, Multiple Line	VA	2
A6105	Counter, Reception Control, Built-In	VA	1
F0275	Chair, Swivel, High Back	VA	1



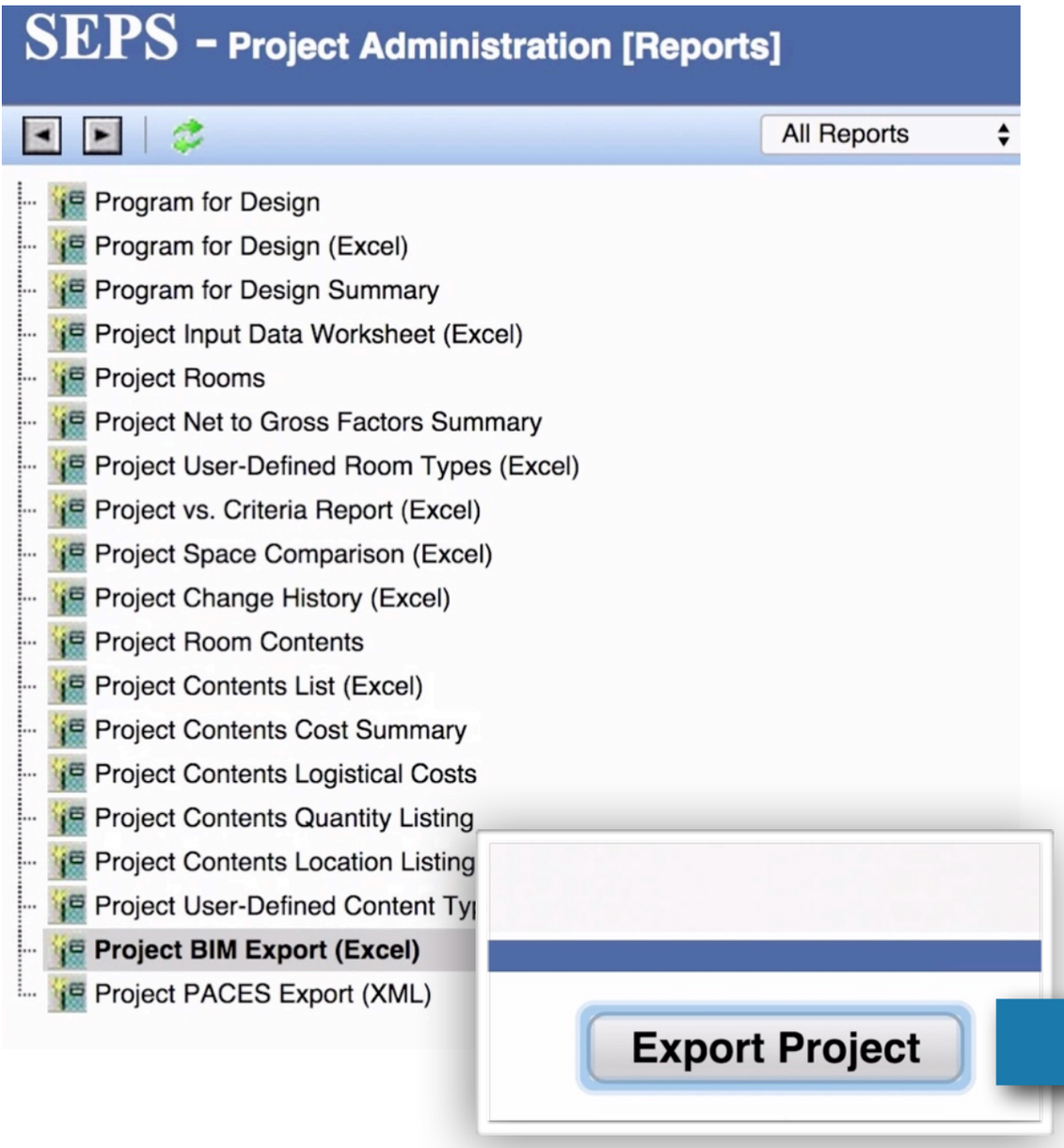
Moving from Static Documents to BIM







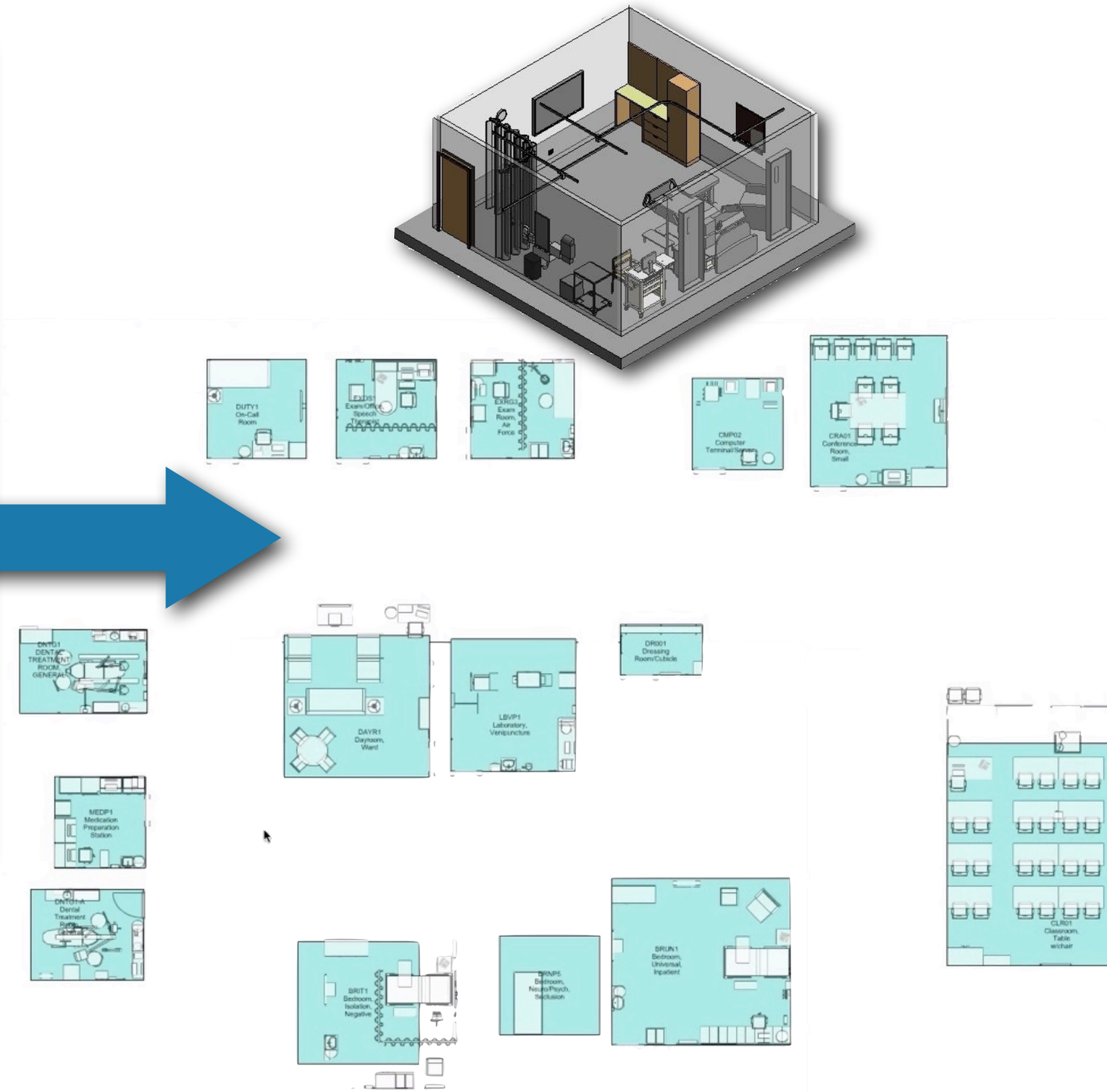
Exporting BIM EXCEL from SEPS



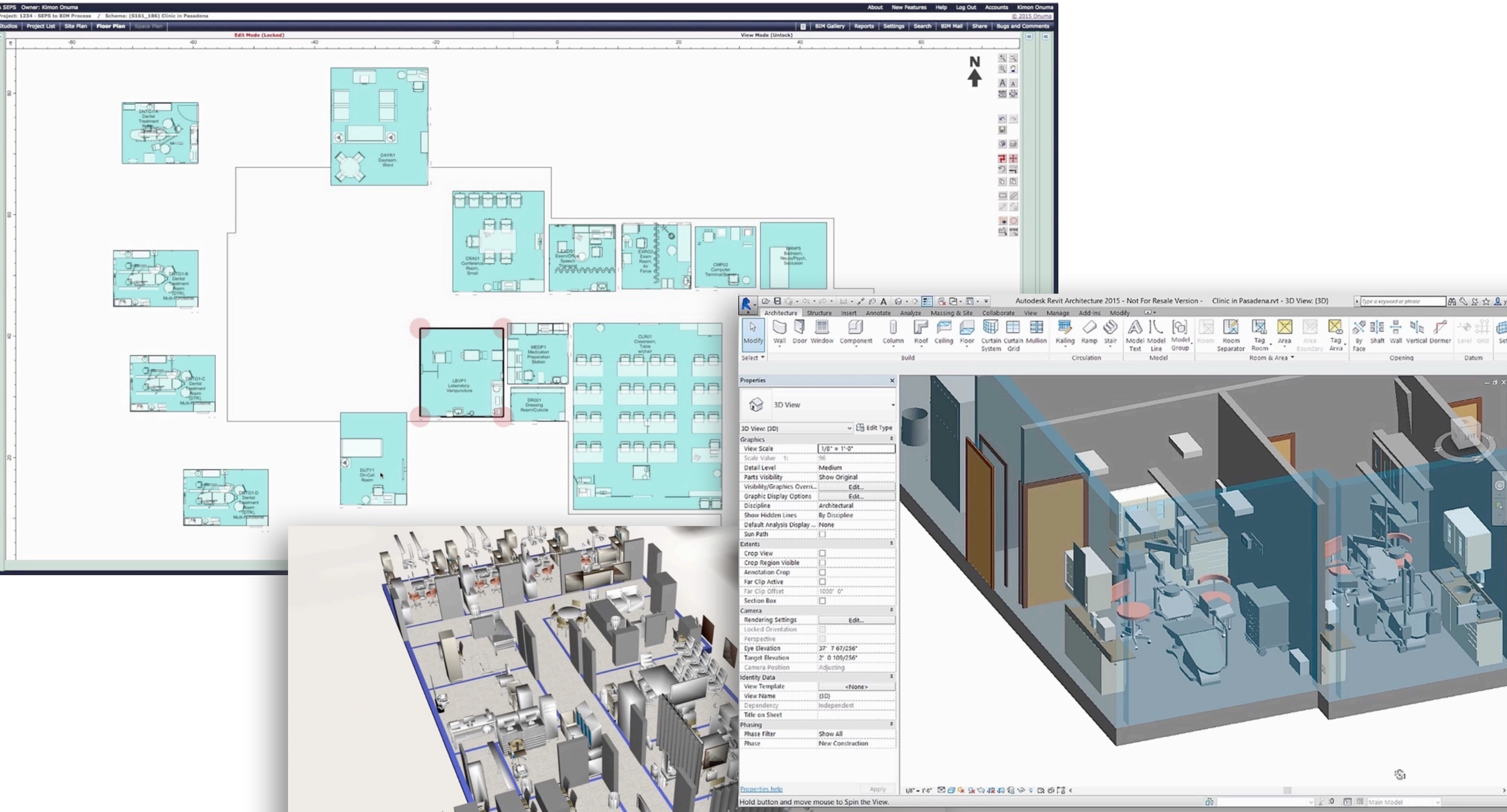
Project Building NTG Factor	Project Department Name	Project Department NTG Factor	Project Room Name	Room Code	Area	Default Area
1.35	DENTAL SERVICE (222)	1.55	Toilet, Patient	TLTU1	50	60
1.35	DENTAL SERVICE (222)	1.55	Instrument Preparation and Sterilization	DNSC2	80	145
1.35	DENTAL SERVICE (222)	1.55	X-Ray Film Processing	DNXF1	80	60
1.35	DENTAL SERVICE (222)	1.55	Housekeeping Aides Closet - HAC	JANC1	40	40
1.35	DENTAL SERVICE (222)	1.55	Linen Room and Clean SPD Cart	LCCL1	80	10
1.35	DENTAL SERVICE (222)	1.55	Soiled SPD Cart Holding	LCSL1	75	100
1.35	DENTAL SERVICE (222)	1.55	Storage	SRS01	80	100
1.35	DENTAL SERVICE (222)	1.55	Conference Room / Library	CRA01	300	250
1.35	DENTAL SERVICE (222)	1.55	Office, Assistant Chief	OFC01	120	200
1.35	DENTAL SERVICE (222)	1.55	Office, Assistant Chief	OFC01	120	200

Creating BIM from SEPS

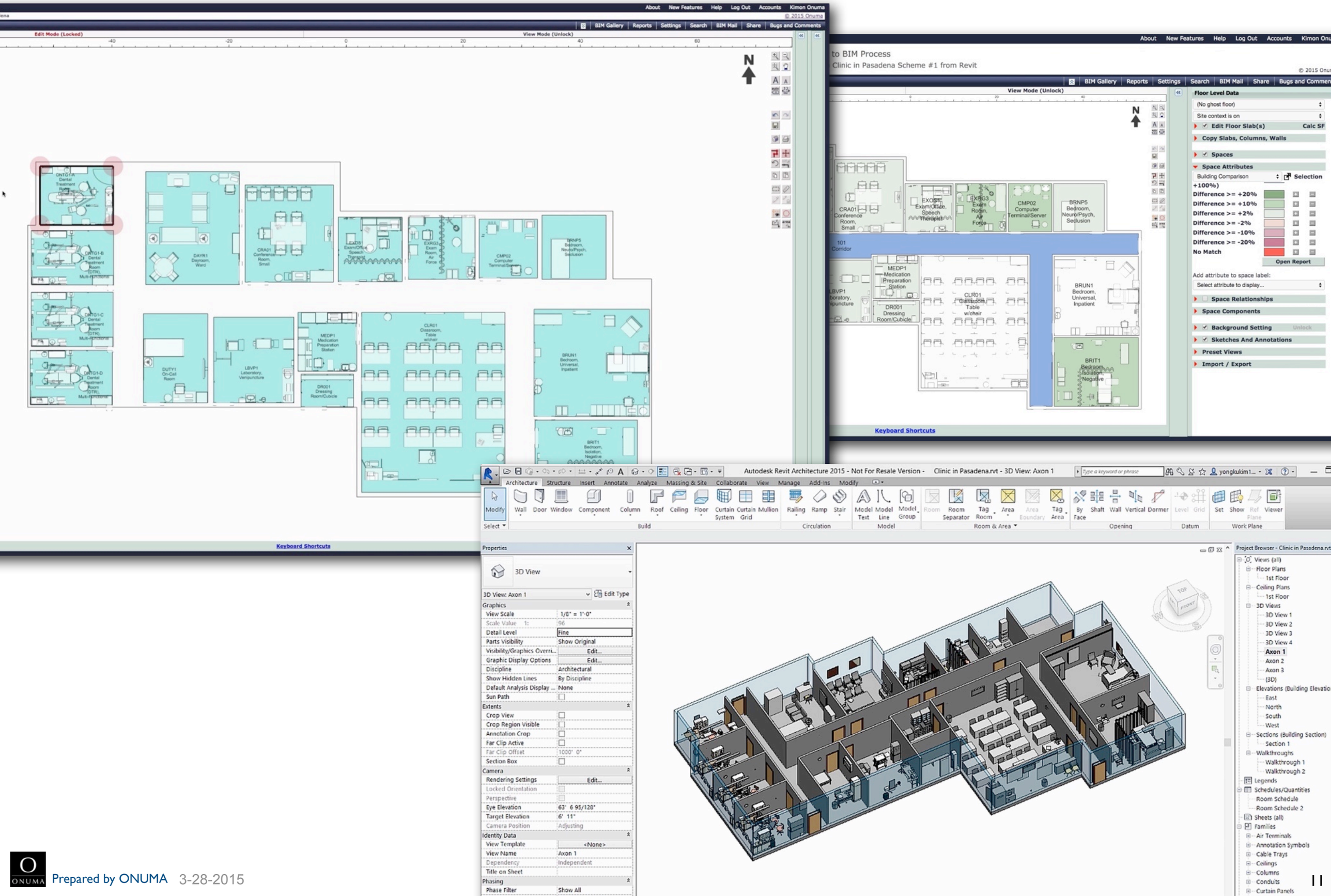
Project Building NTG Factor	Project Department Name	Project Department NTG Factor	Project Room Name	Room Code	Area	Default Area
1.35	DENTAL SERVICE (222)	1.55	Toilet, Patient	TLTU1	50	60
1.35	DENTAL SERVICE (222)	1.55	Instrument Preparation and Sterilization	DNSC2	80	145
1.35	DENTAL SERVICE (222)	1.55	X-Ray Film Processing	DNXF1	80	60
1.35	DENTAL SERVICE (222)	1.55	Housekeeping Aides Closet - HAC	JANC1	40	40
1.35	DENTAL SERVICE (222)	1.55	Linen Room and Clean SPD Cart	LCCL1	80	10
1.35	DENTAL SERVICE (222)	1.55	Soiled SPD Cart Holding	LCSL1	75	100
1.35	DENTAL SERVICE (222)	1.55	Storage	SRS01	80	10
1.35	DENTAL SERVICE (222)	1.55	Conference Room / Library	CRA01	300	250
1.35	DENTAL SERVICE (222)	1.55	Office, Assistant Chief	OFC01	120	200
1.35	DENTAL SERVICE (222)	1.55	Office, Assistant Chief	OFC01	120	200



SEPS Spaces and Equipment in BIM



Resolve the Design in BIM to Match SEPS



Tracking Program for Design

VA HEALTH CARE SYSTEM — **Department Area Summary (NSF | GSF)**

Clinical Expansion for Mental Health — **Space Program**

	Department Name	Department Number		Approved SEPS Total NSF	NTG Factor	Approved SEPS Total DGSF	DD2 110228 Total NSF	DD2 110228 Total DGSF
001	Mental Health Clinic	260		37,430	1.40	52,402	43,238	64,139
002	Substance Abuse Clinic I Gold Team	202		8,660	1.40	12,124	8,199	12,526
003	Veterans Recovery Center (PRRC)	261		6,785	1.45	9,838	5,351	7,545
004	Lobby	244		1,530	1.20	1,836	4,058	7,765
005	Domiciliary 40 Beds	312		18,748	1.55	29,059	20,902	32,521
006	SARRTP 40 Beds	312		18,748	1.55	29,059	21,962	32,112
007	PRRTP 40 Beds	312		18,628	1.55	28,873	21,130	33,264
008	OTEC I KTEC	270		6,969	1.35	9,408	6,675	8,092
009	MH Administration	254		15,590	1.30	20,267	10,260	15,016
010	Psychology Service	272		1,730	1.40	2,422	0	0
011	Social Work Service	282	Located in Bldg 4 - Refer to LT-SCI	0	1.30	0	0	0
012	Methadone Clinic	202		2,970	1.40	4,158	3,451	5,496
013	Satellite Pharmacy			870	1.30	1,131	1,181	1,474
014	Café			750	1.20	900	1,497	1,947
015	Service Dock			550	1.20	660	275	1,065
			SUM OF DEPARTMENTAL DGSF TOTALS	139,958		202,139	148,179	222,962

Building Support and Vertical Circulation

Entry Vestibule

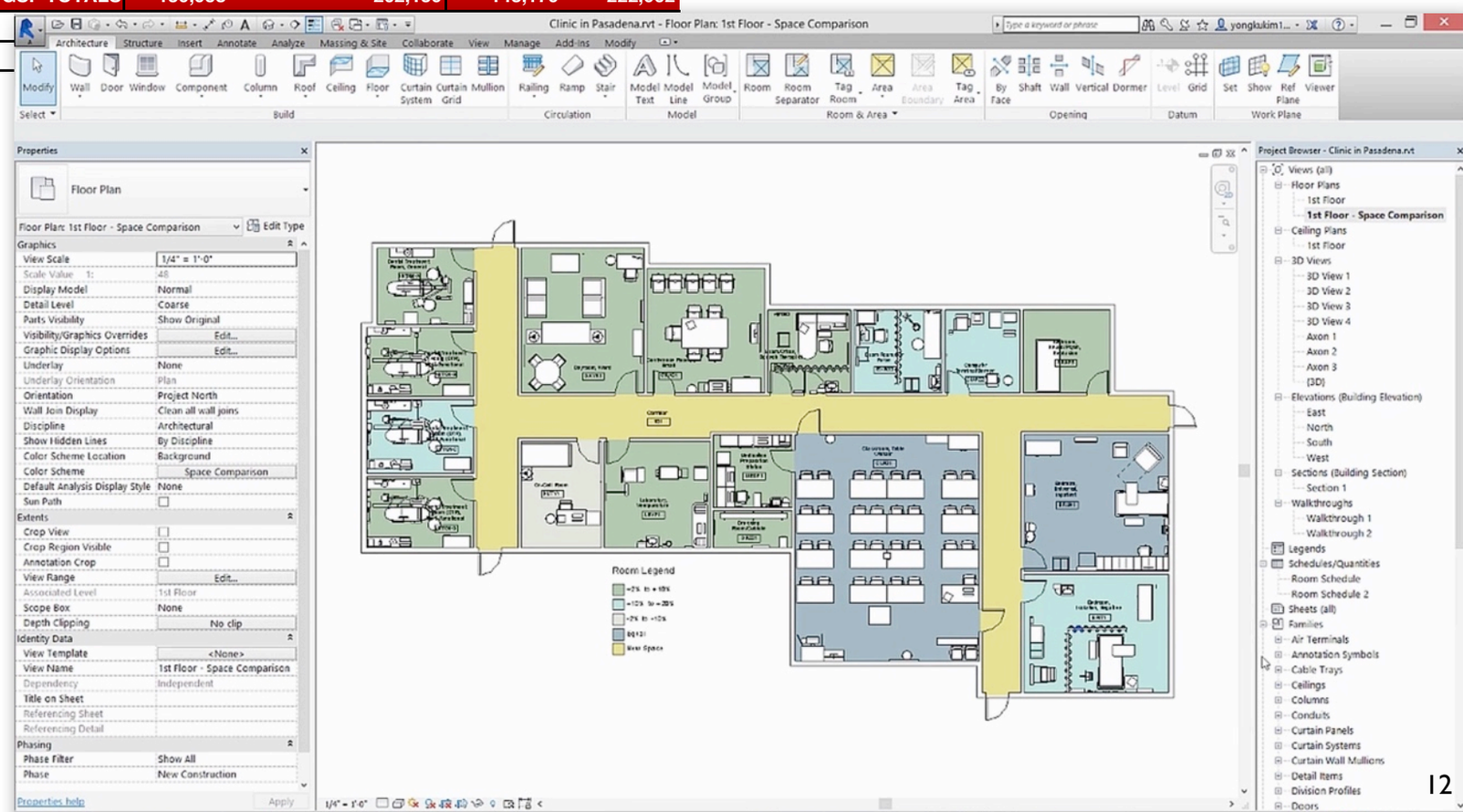
- Main Entry
- Recreation | Therapy
- VRC

Vertical Circulation

- Elevators (Clinic Public) 4 Cabs
- Elevators (Clinic Service) 2 Cabs
- Elevators (Residential Public) 2 Cabs
- Elevators (Residential Public) 2 Cabs
- Elevators (Residential Service) 2 Cabs
- Exit Stair 1
- Exit Stair 2
- Exit Stair 4 (Exterior)
- Exit Stair 5 (Exterior)
- Exit Stair 6 (Exterior)
- Exit Stair 7 (Exterior)
- Exit Stair 8
- Exit Stair 9
- Exit Stair 10

Electrical Support

- Electrical Room (Level 1)
- Electrical Room (Level 2)
- Electrical Room (Level 3)
- Electrical Room (Level 4)
- Electrical Unit Substation Room

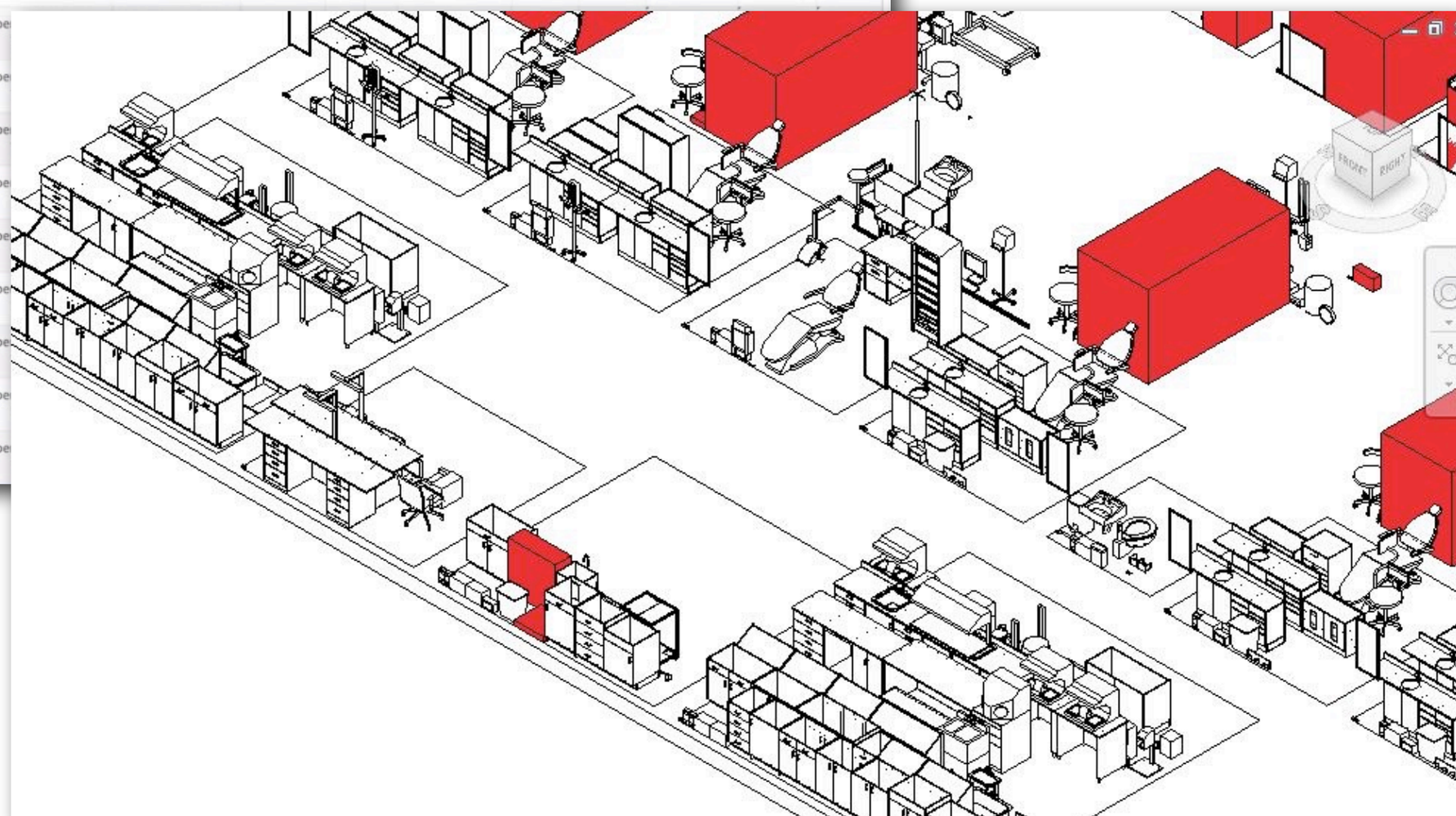


SEPS BIM is Mobile Friendly

Collaborate Through the BIM

Updating Criteria in SEPS

Project Building NTG Factor	Project Department Name	Project Department NTG Factor	Project Functional Area Name	Project Room Name	Room Code	Criteria Room Name	Criteria VA Name	Omniclass Code	Area	Occ	Room Type Name	Default Area	Default Occ	Ceiling Height	Door Width	Floor Load
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Operatory, General Treatment	Operatory, General Treatment	13-51 64 27	120	0	Dental Treatment Room, General	125	0	102	36	60
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Operatory, General Treatment	Operatory, General Treatment	13-51 64 27	120	0	Dental Treatment Room, General	125	0	102	36	60
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Operatory, General Treatment	Operatory, General Treatment	13-51 64 27	120	0	Dental Treatment Room, General	125	0	102	36	60
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Ope										
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Ope										
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Ope										
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Ope										
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Ope										
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Ope										
1.35	DENTAL SERVICE (222)	1.55	PATIENT AREAS	Operatory, General Treatment	DNTG1	Ope										



Updating Criteria and Equipment in BIM

C	F	G	J	M	N	O	S	T	U	V	Y	Z	AA	AB	AC	AD
Project Building NTG Factor	Project Department Name	Project Department NTG Factor	Project Functional Area Name	Project Room Name	Room Code	Criteria Room Name	Criteria VA Name	Omniclass Code	Area	Occ	Room Type Name	Default Area	Default Occ	Ceiling Height	Door Width	Floor Load
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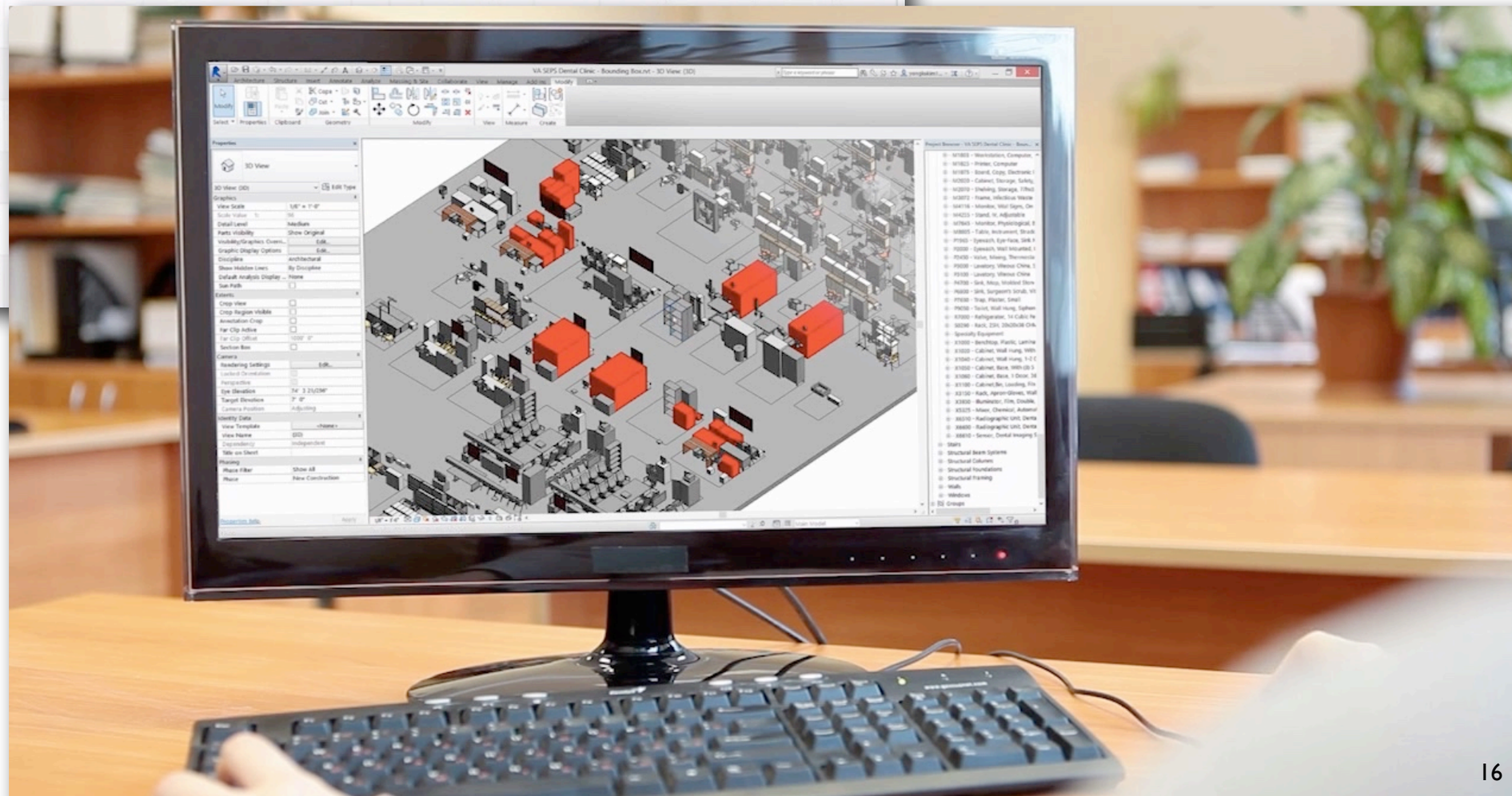
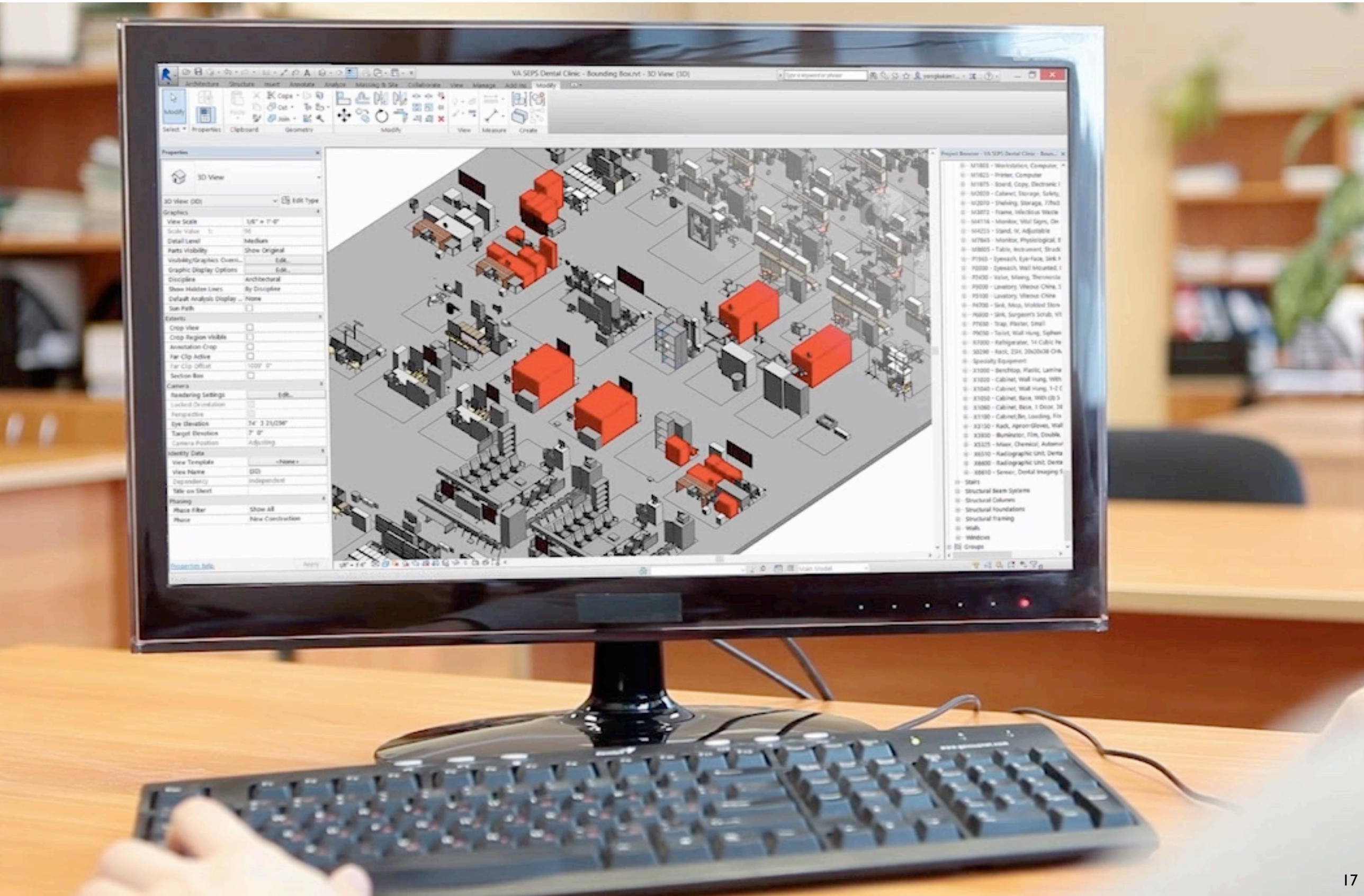
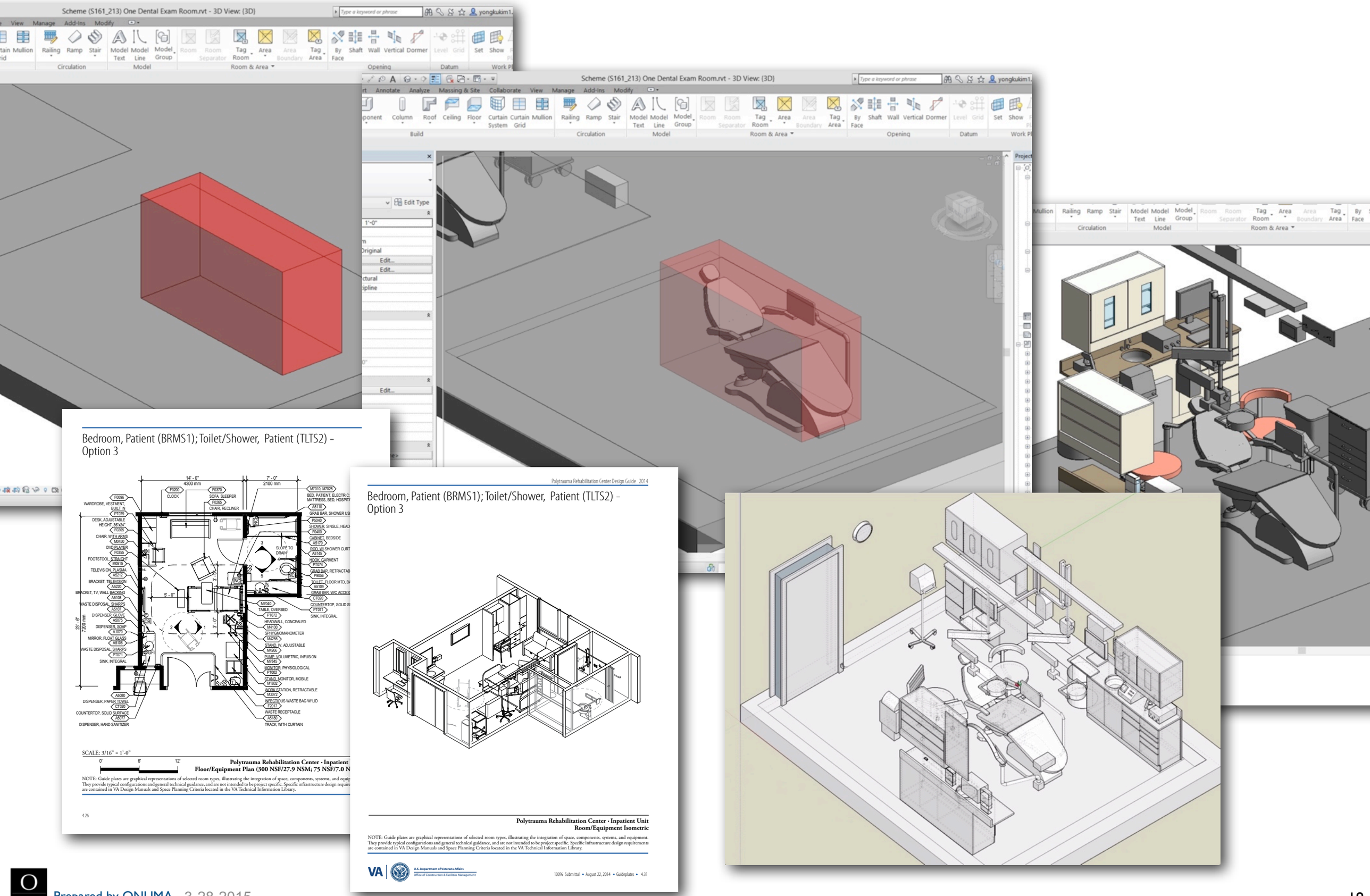


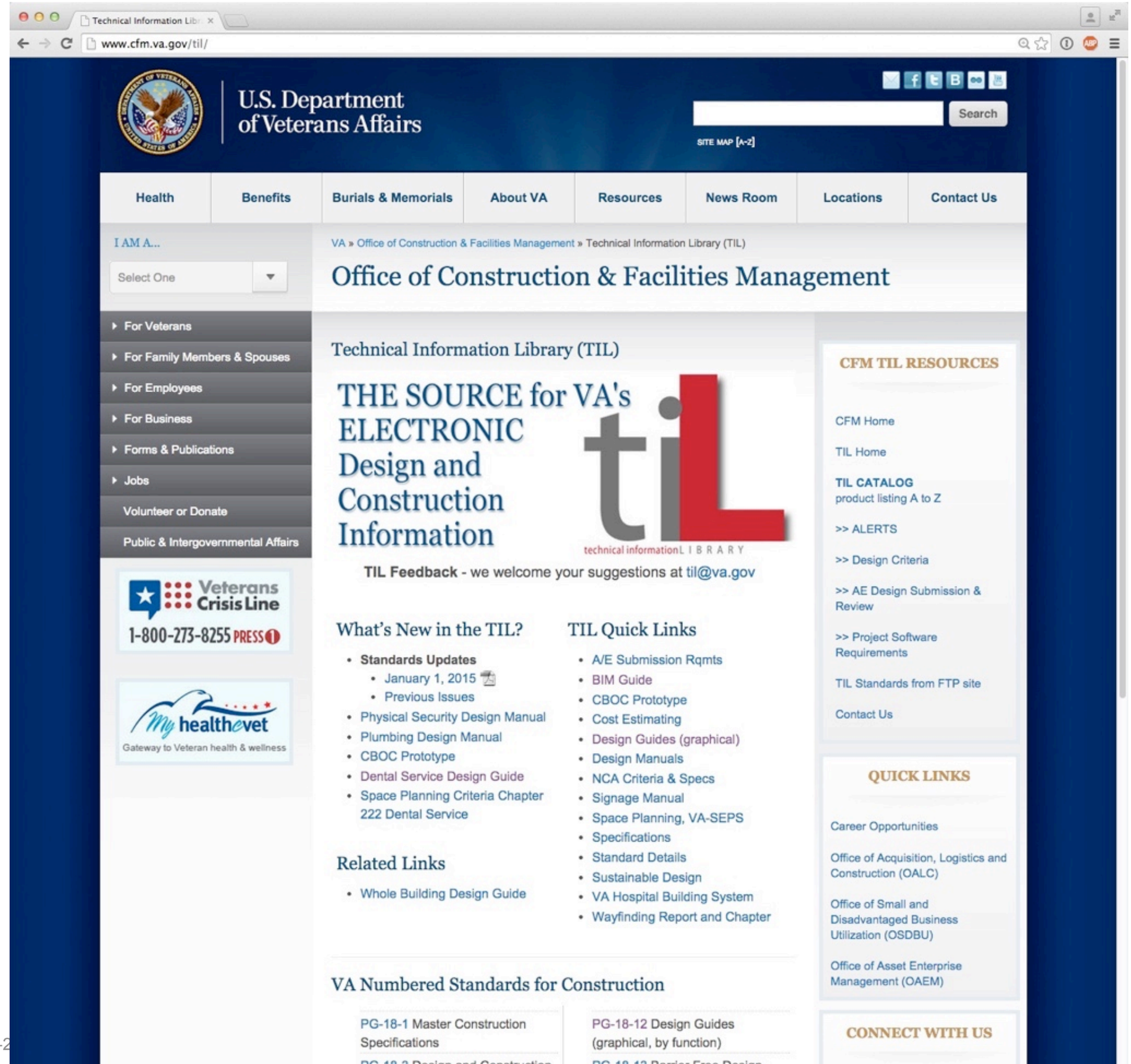
Updating Criteria and Equipment in BIM



Updating Equipment in BIM to Match SEPS

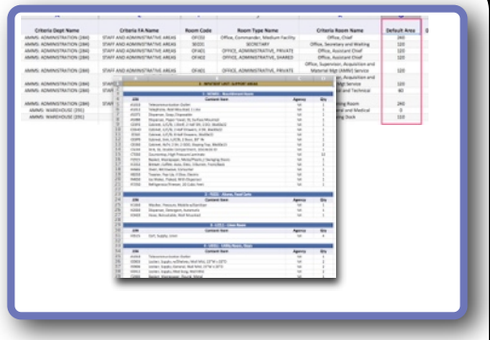


SEPS to BIM Training Material

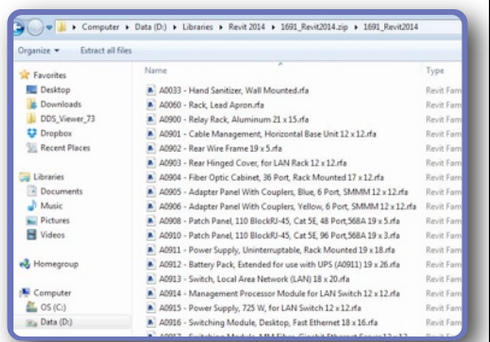


VA TRAINING

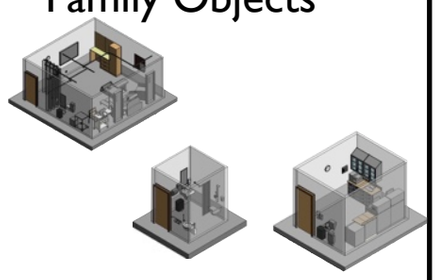
VA Provides to IDIQ AE



1- Excel Room & Contents List from SEPS.



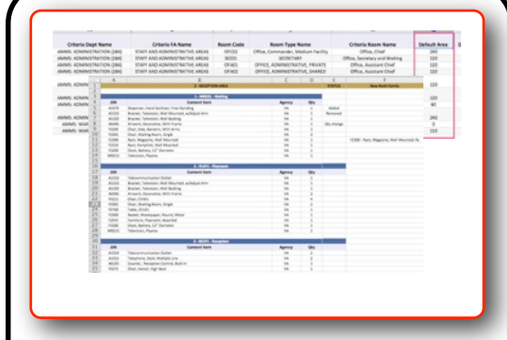
2- ALL Available Revit Family Objects



3. ALL Available BIM Templates as Individual Files "N"=number of BIM templates

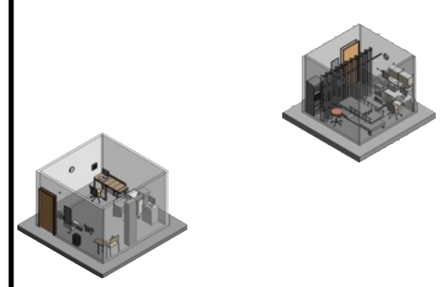
IDIQ AE Submits to VA

+

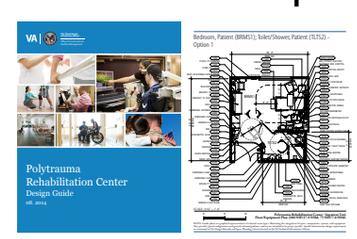


1- Excel Room & Contents With Status Edits.

2- Any New Revit Family Objects

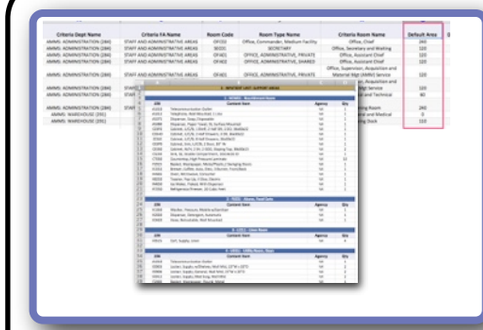


3. New BIM Templates

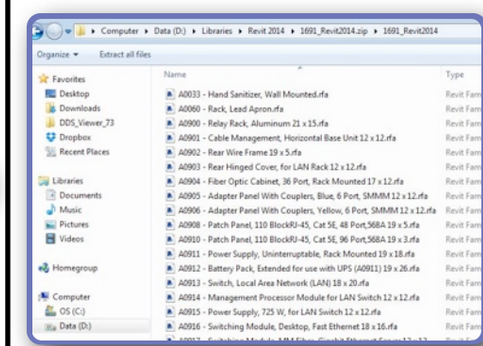


VA Provides to Next IDIQ AE

+/-



1- Excel Room & Contents List from SEPS.



2- Revit Family Objects Updated + more object

3. ALL Available BIM Templates as Individual Files N+New=Number of BIM Templates

In Summary

We've seen how a new Dental Clinic project can be started and exported from SEPS.

Using the SEPS-BIM process, the information was transformed into 3D and data, then used to create and manage the design for a new construction project.

SUMMING UP

The SEPS-BIM integration allows the VA to leverage technology, enhance communications, and streamline our processes.

But most importantly, these improvements will also help the VA to meet our ultimate goal of providing the facilities that will house the best possible care for our Veterans.

VA | U.S. Department of Veterans Affairs

Office of Construction & Facilities Management

U.S. Department of Veterans Affairs
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