

PROVIDING IN-HOUSE CONSTRUCTION SERVICES

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TODAY WE WILL COVER

Forming and maintaining an in-house construction unit

- ① Organizational layouts
- ② Benefits
- ③ Challenges
- ④ Staffing levels
- ⑤ Operating expenses
- ⑥ Billing rates

Have a question or comment?

**Feel free to ask or share
during the presentation**

Open discussion format

ORGANIZATIONAL LAYOUTS

Each institution is unique

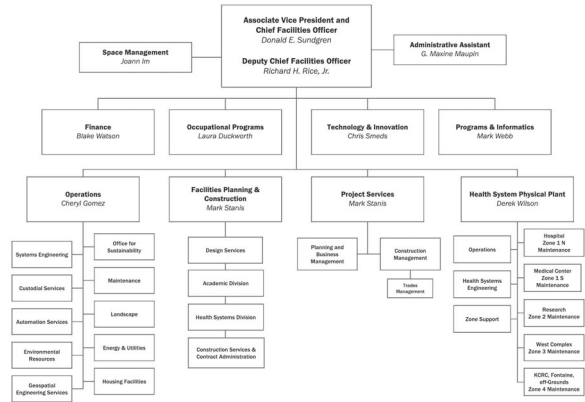
Size, geographical location and state/procurement laws

What works at one institution may not at another

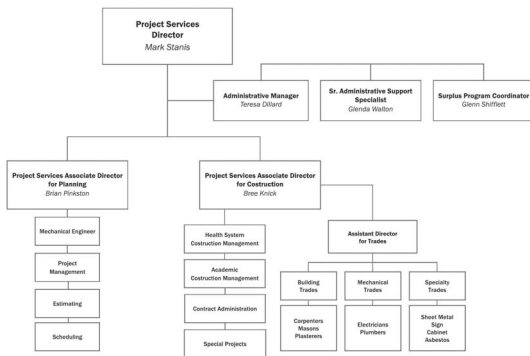
Reporting structure

Contract types:
 Fixed price (FP)
 Guaranteed Maximum Price (GMP)
 Time and Materials (T&M)
 Job Order Contracting (IOC)

UVA Facilities Management organization



Project Services organization



Our staff

Field

- Carpenters
- Cabinet builders
- Masons
- Electricians
- Sheet metal workers
- Plumbers
- Plasterers
- Sign shop
- Environmental remediation
- General services

Office

- Construction manager
- Trades manager
- Project managers
- Supervisors
- Estimators
- Scheduler
- Contract administrators
- Office assistants
- Shared administration support

HISTORY OF PROJECT SERVICES



**How can smaller institutions adapt
concepts of larger institutions?**

Questions and/or comments?

GROUP ACTIVITY

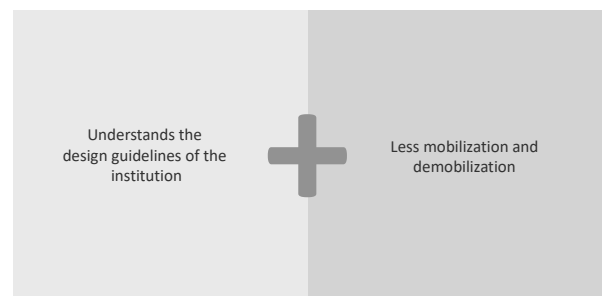
At your tables,
list 1-2 benefits and challenges
of an in-house construction group.

BENEFITS

Sample benefits

- Share a common mission with the institution
- Ownership and partner with maintenance staff
- Higher quality work
- Lower construction costs
- Lower project costs
- Institutional knowledge
- Increased responsiveness
- Emergency response

In-house services



Thornton Hall renovation

Thornton Hall Plaza

- New accessibility ramps to Thornton A-wing, large planters and wide brick walkway.
- Fixed price - \$500,000.00
- Construction Start – 5/23/2016 – Construction Complete – 8/15/2016

Thornton Hall Classroom A120

- Capture existing corridor adjacent to A120 to expand the classroom size
- Fixed Price - \$330,000.00
- Construction Start – 5/23/2016 – Construction Complete – 8/15/2016

Thornton Hall Dean's Suite

- Full renovation of the Dean's Suite and SEAS Offices
- Fixed Price - \$820,000.00
- Construction Start – 5/23/2016 – Construction Complete – 8/15/2016

Thornton Hall C-wing

- 2nd and 3rd floor renovation creating Project Room/Lounge and Admin Office on the 3rd Floor
- Fixed Price - \$1.4 Million
- Construction Start – 01/15/2016 – Construction Complete – 8/15/2016

Thornton Hall Darden Court Walkway

- New Walkway to match North Courtyard Walkway
- Fixed Price - \$100,000.00
- Construction Start – 6/1/2016 – Construction Complete – 8/15/2016



UNIVERSITY OF VIRGINIA
Thurston Hall



UNIVERSITY OF VIRGINIA
Thurston Hall



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Thurston Hall

CHALLENGES

Challenges with in-house construction

- Fixed workforce with a varying workload
- Different procurement laws
- Ability to hire temp/contract labor
- Union workforce and non-union labor in some areas
- Billing rates (regular vs. OT)
- Workload level
- Fleet management
- Client perception
- Local contractors perception
- Accounting process not designed for construction services billing

Questions and/or comments?





STAFFING LEVELS

How do you set your staffing levels?

In-house services

Staff to baseline of work,
not peak

Use temp/contracts
for peaks

**It is impossible to meet
all of the customer's needs**



OPERATING EXPENSES

labor
vehicles
office furniture and equipment
employee benefits
shop rent and upkeep
management

TYPICAL OPERATING EXPENSES

supplies
equipment
support salaries
travel and training
tools

As an in-house unit,
your warranty period may be
much longer than an
outside contractor

Questions and/or comments?

BILLING RATES

How do you set a budget for each project?

You must know your billing rates.

Billing rates rule of thumb

Recharge rates should be approximately twice the employee's direct wages

1x for the employees' direct wages

.35x for benefits

.25x for non-billable time

.40x for supervision and support

Estimating and bidding

- Estimating quantities and man-hours
- Client should be given the option to use or not use in-house services
- Bidding against the market
- Fixed price work (FP)
- Time and materials basis (T&M)
- Guaranteed maximum price (GMP)

Profit and loss

- Project profit/loss limits
- Overall profit/loss distribution
- Profit/loss carryover

**What is an acceptable
profit loss?**

Scope creep

Incremental changes in the scope of work
that eat into the “margin”

Change orders

Market niche

- What is your target market?
- Services offered and not offered?
- Practical and imposed project size limitations

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Explanation of AIA credits

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

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Course description

Discuss effective processes and procedures for providing in-house construction services. Review staffing and organization, workload management and leveling, budgeting, recharge rate structures, billing procedures, and productivity and incentives to perform.

Faculty Member: Mark Stanis

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Learning objectives

- Discuss staffing and workload management
- Discuss effective processes and procedures for in-house construction services
- Discuss organization, budgeting, recharge rate structures, and billing procedures
- Discuss productivity and incentives

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This concludes
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Questions and/or comments?

THANK YOU

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