Plywood Mesh #002
Project Proposal and Installation Plans
Josh Canez, Lauren Hensley, Nick Schaider
Welcome to the Plywood Mesh site proposal packet. In the following pages, we will attempt to provide the most accurate and responsible solution for installing Plywood Mesh #002 (PM#2) in the chosen site. Should you have any questions regarding the drawings, details, or information that follows, please direct them to Josh Canez. For any questions regarding faculty approval, please contact Dr. Mark Clayton.

PM#2 is a hanging sculpture designed and built by students. Made from plywood cut on a computer-controlled machine, it will be suspended on the first floor of Langford A, at the foot of the stairs above the major pedestrian crossing.

The physical structure of PM#2 is a series of interlocking plywood beams connected by notches and steel plates hung from cables attached to the existing structure. The resulting form is an 18'x16' dynamic gridded mesh drop ceiling that redefines the location and creates a sense of place.

The installation of PM#2 will occur in nine stages scheduled to occur over two consecutive eight-hour periods over a weekend or official university holiday. Our proposed installation dates are: Saturday, April 25th and Sunday, April 26th. It should be noted that these dates may change at any time, but will always fall on a non-school day.

PM#2 is currently scheduled to hang indefinitely.
LOCATION

Proposed Site of PM#2

to 2nd floor

1

2

3

4

to Moat
to Atrium
to C Building

Plywood Mesh #002 - Site Proposal and Layout
The proposed site of PM#2 is a high-traffic, low usability location with little or no aesthetic features. Our sculpture is intended to add beauty to this space without impeding pedestrian flow.
The existing structure of the site is more than adequate to support the loads created by our sculpture.
PM#2 is composed of 33 ribs (18 alpha, 15 numerical) built in 9 modular sections.
PM#2 is hung from a total of 36 1/16" steel cables attached to 18 surface-mount ring plates. Each cable carries an approximate load of 30 pounds.
PM#2 hangs above the walking area and ranges from 7'8" at its lowest point to 10'3" at its highest, avoiding all existing lights and fire suppression.
NOTCHED PLYWOOD / PLYWOOD CONNECTION

PLYWOOD / SHACKLE / CABLE SECUREMENT

1/16" GALVANIZED AIRCRAFT CABLE
CRIMP WITH SWAG SLEEVE
2 3/4" STEEL BOLT-TYPE CHAIN SHACKLE
3/4" BLDN PLYWOOD

Plywood Mesh #002 - Site Proposal and Layout
SURFACE-MOUNT RING PLATE CONNECTION TO CONCRETE DOUBLE TEE

CONCRETE STRUCTURAL T-BEAM

SURFACE MOUNT RING PLATE (WORKING LOAD=400 LBS.)

w/ 3/16" TAPCON CONCRETE SCREWS (PULLOUT=380 LBS, SHEAR=675 LBS.)

CRIMP WITH SWAG SLEEVE

1/16" GALVANIZED AIRCRAFT CABLE (MIN. BREAKING STRENGTH=480 LBS.)

DOUBLE PLATE PLYWOOD /
PLYWOOD CONNECTION

BLONDE PLYWOOD BUTT JOINT
1/8" DEPTH 4" WIDE x 6" LONG STEEL PLATE
1/4" BOLT

BLONDE PLYWOOD
1/8" STEEL PLATE
1/4" BOLT
Structural components exceed design-load parameters.

1/2 Blond Plywood = .011psi
Total Area= 51,840 square inches
Material Weight= 570.24 lbs.

LRFD:
Dead Load: 570 lbs. X 1.2= 684 lbs.
Live Load: 200 lbs. X 1.6 = 320 lbs.
Total Weight: 1004 lbs.

36 cables, 18 ring plates
Weight on each cable= 27.88 lbs.
Recommended working load for each cable= 120 lbs.
Weight on each ring plate= 55.78 lbs.
Recommended working load for 1 ring plate=250 lbs.

Plywood Mesh #002 - Site Proposal and Layout
The installation of PM#2 will consist of:
Install cable securement rings.
Lift / Level / Secure side sections.
Lift and connecting center sections.
ASSORTED IMAGERY / INSPIRATION

Images displayed here are copied off the web and various publications with zero discretion. We wholly and sincerely apologize to their respective owners for disregarding copyrights and attributions.

Plywood Mesh #002 - Site Proposal and Layout