The following material is necessary to build the team version of the 2006 FIRST Robotics Competition field elements.

## FIRST Robotics Competition 2006 Advance Material List

Rev. 4 01/03/06

| Item | Material | Quantity | Cost/ea | Ext. Cost | Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $4 \mathrm{ft} \times 8 \mathrm{ft} \times 1 / 8$ in thick polycarbonate (Lexan)** | 2 | \$224.00 | \$448.00 |  |
| 2 | $1 / 4 \mathrm{in} \times 4 \mathrm{ft}$. x 8 ft . Plywood or Luan | 2 | \$14.97 | \$29.94 | Home Depot |
| 3 | 1/2 in. $\times 4 \mathrm{ft}$. $\times 8 \mathrm{ft}$. Plywood | 3 | \$21.99 | \$65.97 | Home Depot |
| 4 | $3 / 4 \mathrm{in} \times 4 \mathrm{ft}$. x 8 ft . Plywood | 1 | \$26.96 | \$26.96 | Home Depot |
| 5 | 1 in. x 3 in. x 8 ft . (\#2) SPF Lumber* | 8 | \$1.97 | \$15.76 | Home Depot |
| 6 | $1 \mathrm{in} . \times 5$ in. x 8 in. (\#2) SPF Lumber* | 1 | \$4.95 | \$4.95 | Home Depot |
| 7 | $2 \mathrm{in} . x 3 \mathrm{in} . \times 8 \mathrm{ft}$. SPF Lumber* | 6 | \$1.59 | \$9.54 | Home Depot |
| 8 | 2 in. $x 4$ in. $x 8$ ft. SPF Lumber* | 17 | \$2.70 | \$45.90 | Home Depot |
| 9 | $2 \mathrm{in} . \mathrm{x} 4 \mathrm{in}$. x 10 ft . SPF Lumber* | 2 | \$3.76 | \$7.52 | Home Depot |
| 10 | \#7 1-5/8 in. deck screws (1pound box) | 2 | \$6.97 | \$13.94 | Home Depot |
| 11 | \#8 2-1/2 in. deck screws (1 pound box) | 2 | \$6.97 | \$13.94 | Home Depot |
| 12 | 1 in. fine thread drywall screw (package) | 1 | \$4.31 | \$4.31 | Home Deopt |
| 13 | . 063 in x 48 in. x 96 in. 3003-H22/24 TP aluminum tread plate (diamond plate)** | 1 | \$110.00 | \$110.00 | Home Depot sells small sheets, or buy the larger size from a sheet metal supply |
| 14 | 3/8-16 $\times 4$ carriage bolt | 8 | \$0.56 | \$4.48 | Home Depot or hardware store |
| 15 | $3 / 8$ in. flat washer | 8 | \$0.08 | \$0.64 | Home Depot or hardware store |
| 16 | 3/8-16 nuts | 8 | \$0.08 | \$0.64 | Home Depot or hardware store |

*Note: US dimensional lumber SPF (Spruce, Pine or Fir) actual size is smaller than its name, for instance:
1 in . $x 3$ in. is approx. $3 / 4 \mathrm{in}$. $x 21 / 2 \mathrm{in}$.
2 in . $x 3$ in. is approx. 1 1/2 in. x $21 / 2 \mathrm{in}$.
**Note: These are expensive components and duplicate the actual playing field. They are not structurally necessary and similar material or smaller pieces can be used to simulate the actual field performance.

