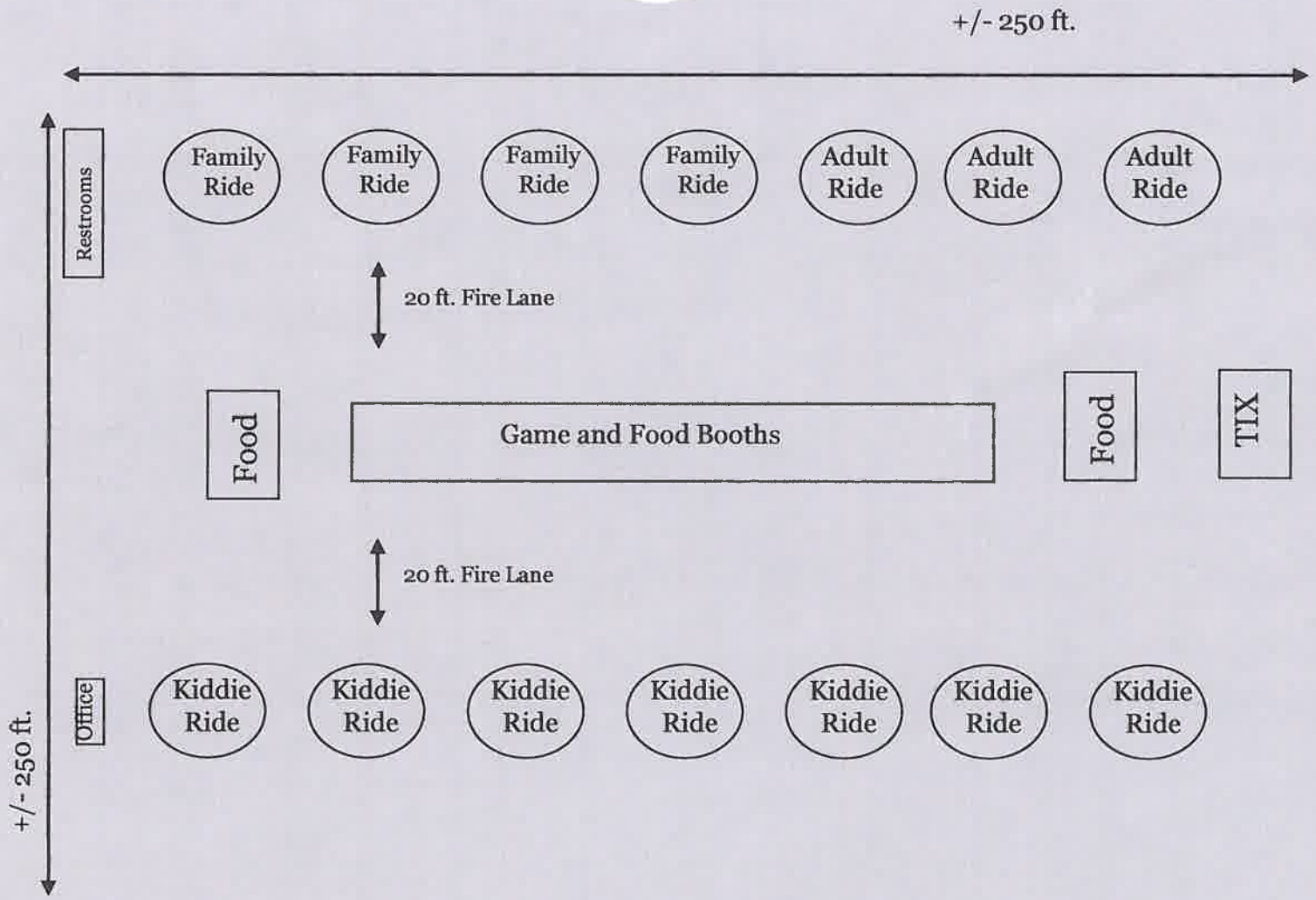Detailed Layout