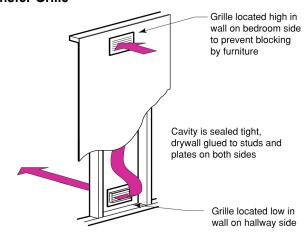
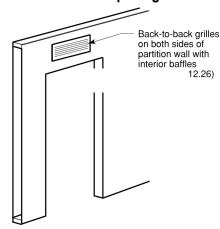


Sheet 604

Transfer Grille

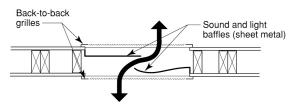


Transfer Grille—Over Door Opening



- Relieves pressure differences between spaces
- Interior baffles control sound and light transfer
- Door undercut of 1" minimum still required

Transfer Grille—Section



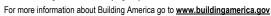
Transfer Ducts and Grilles

The ductwork systems in these houses are designed to supply air to the individual rooms, and to have the air return to a central return grille. The Manual J (i.e. heating and cooling load) calculations typically yield the airflow requirements to the various rooms to meet those design loads. These airflow volumes are then used to size and lay out the ducts.

With any distribution system, there must be a return path for the energy distributing fluid. In the case of an air-based duct system, there is a central return that is open to the primary living space, with transfer means from bedrooms to the main space. The return path from the bedrooms needs to allow sufficient return flow to prevent room pressurization and prevent supply flow from being "choked" off. While undercutting doors can create part of the return air path, wall transfer grilles or jump ducts should be installed to prevent the return problems stated above.

All supply registers should have clear access to a return grille in order to prevent the pressurization of bedrooms and the depressurization of common areas. Bedrooms should either have a direct-ducted return or a transfer grille. Undercutting of bedroom doors rarely works and should not be relied upon to relieve bedroom pressurization. A central "hard" ducted return that is airtight and coupled with transfer grilles to relieve bedroom pressurization significantly outperforms a traditional return system, which has leaky ducted returns in every room, stud bays used as return ducts, and panned floor joists.

This Information Sheet has been prepared by Building Science Corporation for the Department of Energy's Building America Program, a private/public partnership that develops energy solutions for new and existing homes. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States government or any agency thereof.









Transfer Grille—Construction

