Good urban design is essential for effective transit-oriented development (TOD) projects, especially as more intense urban development is concentrated around the rapid transit stations. Beyond just increases in urban density, new development should be combined with cohesive urban design that prioritizes pedestrians and creates a network of public spaces and corridors that connect people to transit.

While many guidelines and principles for good urban design have been created, planners need to incorporate the local context to implement them well. Where possible, local traditional (pre-car) urban forms should be used as inspiration to ground new projects in local context and history. Even though parcels are often combined when preparing comprehensive redevelopment, urban designers need to take care to prevent monolithic developments that cut off access to the transit station by surrounding communities. Pedestrian promenades and other techniques should be employed to maintain high-quality direct access for transit users. At the same time, urban designs should prioritize connecting bus transit services and other first-mile/last-mile services (e.g. jitneys, rickshaws, taxis, etc.) over private cars, and parking should be kept to a minimum.

High-quality urban design should be viewed as an essential part of TOD planning and implementation, because it improves the quality of life in the area and better connects communities to the transit infrastructure being built.

**Key Urban Design Elements for Success**

Good walkable urban design generally contains the following elements:

- Development with mixed uses (e.g. residential, retail, office, community services, etc.)
- Dense network of streets with limited parking
- Generous pedestrian and bicycling infrastructure, with designated bicycle parking
- Higher building densities immediately next to rapid transit station, with gradual reductions to surrounding average densities
- Seamless connections between rail/bus transit services for first/last mile access
WB Projects / Resource Documents Related to Urban Design in TOD

The World Bank has done significant work in the urban design aspects of transit corridors and TOD projects. Numerous design guidelines for TOD have been created, and are rich resources to draw upon. A sampling of these resources is below:

1. **WB-WRI TOD Corridor Course** (urban design aspects are the focus of Module 4)
   a. Description: This course focuses on the complete planning
      i. Module 4: [http://wrcitieshub.org/sites/default/files/Module%204%20Design%20Components%20of%20TOD%20Final.slides%26notes.pdf](http://wrcitieshub.org/sites/default/files/Module%204%20Design%20Components%20of%20TOD%20Final.slides%26notes.pdf)

2. **Lima-Callao Metro Line 2 TOD Study** *(reports in Spanish)*
   a. Description: This comprehensive engagement looked at integrated planning along a new metro corridor, identified specific parcels for development, recommended urban design changes, and discussed financing arrangements.
   b. Source: [https://collaboration.worldbank.org/content/sites/collaboration-for-development/en/groups/tod-cop/documents.entry.html/2017/05/10/wb_project_reports-1ZJT.html](https://collaboration.worldbank.org/content/sites/collaboration-for-development/en/groups/tod-cop/documents.entry.html/2017/05/10/wb_project_reports-1ZJT.html)

3. **India TOD Guidelines**, funded through SUTP
   a. Description: A national-level guideline prepared under the Sustainable Urban Transport Programme, this goes over the full implementation steps for TOD. Chapter 5 focuses on best practices for urban design (page 64).

4. **Surabaya Urban Corridor Development Project**, World Bank / MIT Urban Form Lab
   a. Description: This urban design-focused study for an upcoming transit corridor in Surabaya, Indonesia produced a detailed strategy for redeveloping, densifying, and connecting the district.

5. **China Design Manual for Low-Carbon Development**, prepared by Energy Foundation
   a. Description: This detailed document provides recommendations on transit-oriented, pedestrian-friendly urban design for China’s fast-growing cities.

6. **Mumbai Metro Line 1 TOD Study**, funded through SUTP
   a. Description: This corridor study looked at development patterns around Mumbai’s Metro Line 1, and provided detailed recommendations for how redevelopment could be phased at one station, an area dominated currently by informal development.

7. **Dar es Salaam Metropolitan Transformation Project**, interim report
a. Description: This interim update provides information on the ongoing comprehensive planning effort around Dar es Salaam’s BRT corridors. The consultants have started to define station typologies and discuss redevelopment options with key stakeholders.


8. Da Nang Urban Redevelopment Study
a. Description: This ongoing study looks at TOD along a specific corridor to connect the existing city with a new intercity train station.


9. Transforming the Urban Space through Transit-Oriented Development: The 3V Approach
a. Description: Chapter 4 of this publication by the TOD CoP outlines key principles with illustrations of how using good urban design of the public realm can create high place value and illustrates it through case studies on Hammarby, Malmo, and Singapore.

b. Source: http://hdl.handle.net/10986/26405

10. Global Street Design Guidelines, NACTO
a. Description: These guidelines provide a detailed set of recommendations to design streets that put people first. It is designed for practitioners and considers the sense of place and people to design streets that seek positive impacts in terms of quality of life and sustainability. It needs to be contextualized to be most effective with close attention to network dynamics (traffic patterns) and road safety.

b. Source: https://globaldesigningcities.org/publication/global-street-design-guide/

Excerpt from Surabaya Study
Excerpt from India TOD Guidelines

Elements of TOD to promote compact development with combination of mixed use and high density | Source: IBI Group