

Washtenaw Avenue Transit-Oriented Development



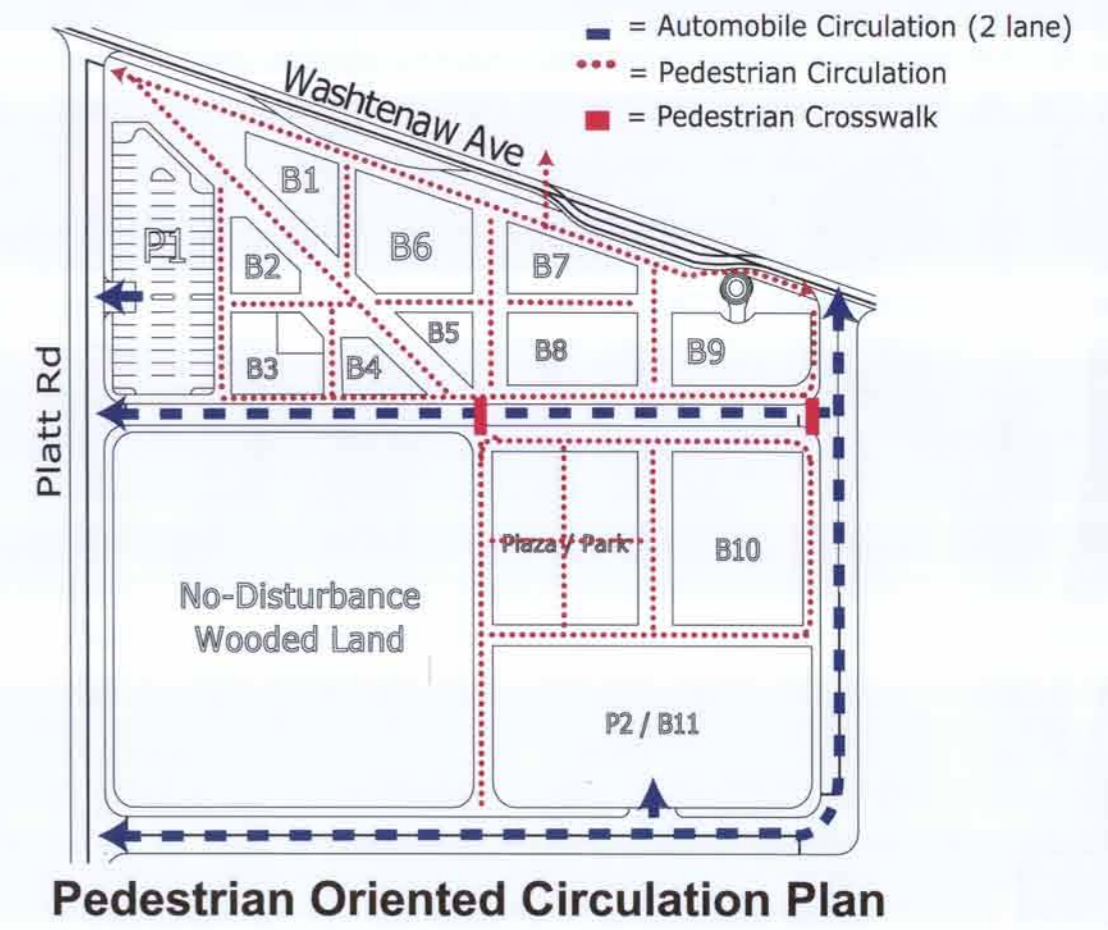
Creating a Vista



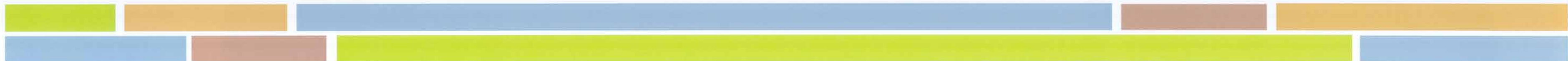
Living Close to Transit



Site Plan



Mixture of Functions



View From North



View From South



View From East



View From West

Washtenaw Avenue Transit-Oriented Development

The following is a project designed as part of a physical planning workshop by graduate students in the University of Michigan's College of Architecture and Urban Planning. The task given was to create a design for the development of the currently vacant site located across the street from Whole Foods on Washtenaw Avenue in Ann Arbor, Michigan. The site is near the intersection of Washtenaw Avenue and Huron Parkway. The information displayed describes several things: It shows the goals for the development and the regional context of the site. The posters also provide an inventory of existing site characteristics coupled with an adjacency matrix describing how the newly proposed uses will relate to one another. Precedence studies are used to relate the development to current projects and conceptual land use and circulation designs offer a unique depiction of the development potential the site holds.

Goals

1. Connectivity to Surrounding Uses
2. Facilitate Pedestrian Safety & Comfort
3. Create a Destination

Site Inventory

Adjacent Uses	PUD, R1A, PL, C3																																																				
Transit	AATA Route 4 at Site, 7 & 22 Nearby																																																				
Size	7.15 acres, 630 ft. of frontage along Washtenaw																																																				
Elevation	794 ft. @ 42.256721° N 83.695732° W																																																				
High Point	Northwest																																																				
Low Point	Wood lot & South Central																																																				
Plant Hardiness Zone	5b/6a																																																				
Climate	<table border="1"> <thead> <tr> <th></th> <th>J</th> <th>F</th> <th>M</th> <th>A</th> <th>M</th> <th>J</th> <th>J</th> <th>A</th> <th>S</th> <th>O</th> <th>N</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>H</td> <td>30</td> <td>34</td> <td>45</td> <td>58</td> <td>70</td> <td>79</td> <td>83</td> <td>81</td> <td>74</td> <td>61</td> <td>47</td> <td>35</td> </tr> <tr> <td>L</td> <td>17</td> <td>19</td> <td>27</td> <td>37</td> <td>48</td> <td>58</td> <td>62</td> <td>61</td> <td>53</td> <td>42</td> <td>32</td> <td>22</td> </tr> <tr> <td>In. Prec.</td> <td>2.24</td> <td>2.04</td> <td>2.78</td> <td>3.36</td> <td>2.97</td> <td>3.38</td> <td>3.16</td> <td>3.71</td> <td>3.38</td> <td>2.50</td> <td>2.99</td> <td>2.84</td> </tr> </tbody> </table>		J	F	M	A	M	J	J	A	S	O	N	D	H	30	34	45	58	70	79	83	81	74	61	47	35	L	17	19	27	37	48	58	62	61	53	42	32	22	In. Prec.	2.24	2.04	2.78	3.36	2.97	3.38	3.16	3.71	3.38	2.50	2.99	2.84
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On Washtenaw Ave. across from the site exists a PUD site that contains a Whole Foods and a Barnes & Noble Bookseller. To the west of the site exists a quiet two-lane road known as Platt Rd., and a large county park complete with a community center. Immediately south of our site exists a number of office/retail businesses, and to the east of our parcel exists a number of auto service shops as well as a storage warehouse. There is one bus stop directly in front of the site, with two additional bus stops located on Washtenaw Ave immediately adjacent to the site. The site is accessible from two curb cuts on Washtenaw Ave, with a small access road located on the back of the site that gives the access to Platt Rd.

Precipitation values are highest during the summer months. Therefore, it is important to maintain the wetlands, as well as the Southeast corner in order to responsibly manage stormwater runoff.



Stormwater Management Techniques

Low Impact Development (LID) Strategies



Bioretention Cells (rain gardens): These are small landscaped, graded areas that are constructed with a soil mix, lined with a porous medium that reduces stormwater runoff, and filters nonpoint source pollution. They are most successful with low maintenance, water-tolerant plants. Sometimes bioretention cells are designed using waterproof liners and underdrains that can collect stormwater for reuse and help to avoid any soil contamination or leaks into building foundations.

Permeable Concrete: Specially mixed concrete with fine aggregates or stones removed. This creates pores that permit water travel through the pavement to an underground reservoir. The stormwater can then be filtered, detained, or infiltrated into the ground.

Permeable Pavers: These are designed to intercept and transmit runoff to permeable soils where pollutants are filtered, runoff is slowed, and aquifers are replenished. Storage reservoirs can be used in conjunction with pavers and these pavers can be incorporated into grassy open areas or used as roadways.

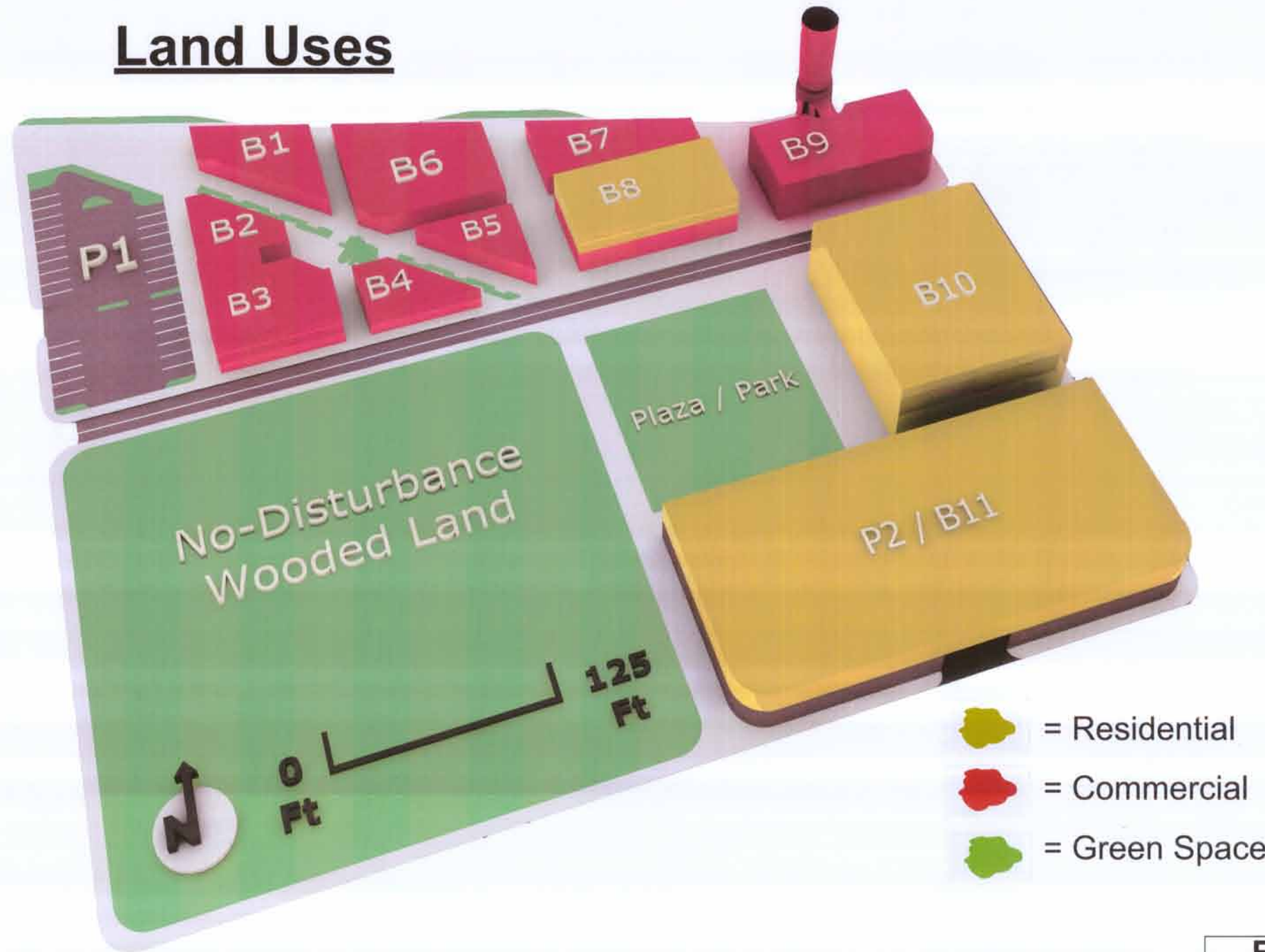
Runnels: Surface depressions in sidewalks that channel small amounts of stormwater runoff.

Sustainable Landscaping: Native, local plants that are adapted to local conditions are best suited to respond to and/or reduce stormwater runoff.

Water-Efficient Fountain: Fountain reuses stormwater with a recirculating pump.

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Land Uses



Adjacency Matrix

	Residential	Retail	Restaurants	Brew & View	Public Transit Stations/	Plaza/ Park	Residential Parking	Commercial Parking	Wood Lot/ Wetlands
Residential	Adjacency Desirable	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Essential	Adjacency Unnecessary	Adjacency Unnecessary
Retail	Adjacency Unnecessary	Adjacency Essential	Adjacency Desirable	Adjacency Desirable	Adjacency Desirable	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary
Restaurants	Adjacency Unnecessary	Adjacency Essential	Adjacency Essential	Adjacency Desirable	Adjacency Desirable	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary
Brew & View	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Essential	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary
Public Transit Stations/	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Essential	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary
Plaza/ Park	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Essential	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary
Residential Parking	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Essential	Adjacency Unnecessary	Adjacency Unnecessary
Commercial Parking	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Essential	Adjacency Unnecessary
Wood Lot/ Wetlands	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Unnecessary	Adjacency Essential

Precedence Studies



Mixing diverse uses at one place (False Creek, Vancouver, BC)

By mixing residential, office, retail, and recreational uses at one place, False Creek provides its residents and visitors a round-the-clock experience, a healthy walking life style, more social interactions, and notably a great sense of belonging.



Installing a grid road system (Congress for the New Urbanism)

With grid streets, though not necessarily having street run at right angle on each other, there's much more efficiency in the use of pavement by increasing accessibility and promoting functional open space.



Designating at least a portion of open space as "no-disturbance" area (King Farm, Washington D.C.)

This "Growing, Not Mowing" regulation is intended to allow this area to return to its natural condition through re-growth. This area will soon provide wildlife habitats and act as a filter to improve water quality.



Creating a vista (San Francisco, CA)

At this triangular intersection of Columbus and Stockton St., the street design successfully creates a vista for pedestrians and drivers, which easily allows them to see the architectural landmarks and activities at the far ends of both streets.

Floor Area	Ground Story		Upper Story	Total Floor Area	Parking	
	Area	Use			Area	Spaces
Built Area						
"NORTH-LAND"						
B1	Restaurant			4,071	Commercial Area	53,320
B2	Retail			2,603	Commercial Parking Needed	107
B3	Restaurant	Restaurant		10,000	Total Housing Area	76,345
B4	Retail			2,201	Total Housing Units	35
B5	Retail			2,026	Housing Parking Needed	35
B6	Retail & Restaurant			8,169	Total Shared Parking	15 spaces
B7	Retail			4,452	Total Parking Needed	127 spaces
B8	Retail	5 unit Apartment		19,410	Parking Provided	
B9	Theater & Bar	Theater & Bar		13,328	P1	47 spaces
P1	Surface Parking			16,900	P2	80 spaces
					Total	127 spaces
"MID-LAND"						
B10	6 unit apartments	12 unit Apartment		28,272		
"SOUTH-LAND"						
B11	P2	12 unit Loft Apartments		70,266		
Total Construction Area				181,698		
Wooded Land Area			92,219			
Sidewalk & Greenspace			84,078			
Bus & Trolley Harbor			4,326			
Internal Road			10,807			
Total Land Area			311,598 sq. ft.			