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Introduction

The Niehoff Urban Studio is a unique interdisciplinary initiative undertaken to address urban issues that challenge the quality of life in Cincinnati. The studio endeavors to engage the community in an urban problem solving effort. During a two year cycle, students, faculty, community members and city officials collaborate on analyzing a specific topic related to urban design and community development in Cincinnati.

The theme of the 2008-2010 Niehoff Studio cycle is informed by findings of the Growth and Opportunities Plan for the City of Cincinnati (GO Cincinnati) study completed in January 2008 and sponsored by the Cincinnati USA Regional Chamber and the City of Cincinnati. Coursework during this studio cycle will apply the study’s economic development strategies on the Hopple Street - Martin Luther King Drive - Madison Road corridor from Camp Washington to Madisonville in Cincinnati (referred to as the MLK-Madison corridor). Using a “place-based” approach, students will analyze and produce urban design strategy proposals for the corridor as a whole as well as particular development areas along it.

The “Great Streets” concept describes a “multidisciplinary approach to corridor improvement comprising public realm investments, strategic land use plans, public safety strategies, and economic development assistance” originating from an initiative of the District of Columbia.

In the fall quarter 2008 Niehoff Studio, students of urban planning, civil engineering, transportation engineering, environmental engineering, and structural engineering collaborated on analyzing and producing urban design recommendations for two focus areas: the Hopple Street - Martin Luther King Drive - Madison Road corridor as a whole and the neighborhood of Camp Washington.

During the winter 2009, students of urban planning, civil engineering, transportation engineering, environmental engineering, structural engineering, and political science formed interdisciplinary teams that focused on the analysis, urban design and implementation strategies for the neighborhood of Madisonville, at the northeast end of the MLK-Madison corridor.

In the spring quarter 2009 different aspects of Great Streets and Gateways were addressed in three courses. The Niehoff Studio, formed by graduate students in Architecture focused on proposals for the Milacron Site along the MLK/Madison Corridor. Civil, transportation, environmental, and structural engineering students completed their capstone projects with proposals for the improvement of Madison Road, Red Bank Expressway, the Nutone Site, the Little Duck Creek Corridor, and the Stormwater Infrastructure in Madisonville. Finally, students from a wide range of disciplines worked on the analysis of urban issues based on methodologies and theories discussed during the seminar “Urbanism: Observing the City.”
The students and faculty of the spring 2009 Niehoff Urban Studio, would like to thank the following entities and individuals for their involvement:

City of Cincinnati

Department of Traffic Engineering
Martha Kelly
Bryan Williams

Planning Department
Reggie Victor

Department of Economic Development
Holly Childs
Robert Bertsche

Department of Architecture and Urban Design
Matthew Andrews
Jack Martin

Councilperson Roxanne Qualls

Robin Corathers, Mill Creek Restoration Project

Dobbs Ackermann, Ackermann Group

Madisonville Community
Bob Mendelein, President Madisonville Community Council
Bob Igoe, President Madisonville Business Association
Dan Dermody, Madisonville Arts Center
Don Stephan, Stephan Woodworking
David Johnson

Oakley Community
Dave Schaff, President of Oakley Community Council
With counsel from the City department of economic development and the Oakley community council, three teams of architecture students created mixed-use redevelopment simulations for the Milacron site, a former industrial site along the MLK/Madison corridor in the neighborhood of Oakley. This site has been the subject of a number of unimplemented development proposals (the Millworks project) and is occupied with a mix of vacant and active industrial/manufacturing facilities, the Crossroads mega-church, and a big box retail complex (Center of Cincinnati).
The Foundry at Madison
by Michael Benkert, Katie Conner, and Ryan Kotila

The work of this group was based on the principles of Great Streets as defined by Allan Jacobs in order to create a walkable mixed-use development while maintaining the industrial heritage of the neighborhood. A network of new streets, both vehicular and pedestrian only, was proposed to organize the site and better link it to the surrounding areas, including direct access to I-71. A small scale mixed-use retail-residential center is envisioned with an emphasis on entertainment with two major attractions, a multi-screen cinema and an outdoor amphitheater. In addition to providing a street connection across the existing railway barrier to the existing Oakley community, this scheme advocates for the residential redevelopment of the Robertson Road manufacturing area.

Work, live, eat, and play
by Peter Ekama, Nicole Fannin, Paul Fatkins, Janice Fredwest, and Kerri Melis

The work of this group is based on the idea of rehabilitating abandoned industrial sites throughout Cincinnati by remaking them with public greenspace and recreation. These sites would be linked with existing parks and green-space by means of existing rails and new bike and pedestrian trails. On the Milacron Site, the group proposes a series of solutions centered around creating significant green spaces and “green infrastructure” among existing and new mixed-use buildings, including strategies for integrating local and/or on-site food production, distribution, and consumption. A primary design strategy illustrates techniques to “deconstruct of the big (retail/manufacturing) box” within a context of diverse work, live, eat, and play opportunities.

Form-based code approach to redesign
by Christopher Jolley and Katherine Search

The design proposal created by this group is based on the principles of New Urbanism and Form Based Code in order to create a walkable community that is connected to the surrounding neighborhoods. Working from an analysis of street grid patterns of surrounding areas, the design illustrates a phased insertion of a dense street grid into the Millworks super block to simulate the creation of a new residential neighborhood with supporting nodes of civic, commercial, and greenspace amenities.
The Foundry at Madison

Context and Access
The Foundry at Madison is located in a transitional zone between the urban core of Cincinnati’s Uptown and the more suburban neighborhoods to the north and east. The site formally known as Milicron is nestled between the activity centers of Oakley Square, The Center of Cincinnati, and Crossroads Church, but remains disjointed if not totally secluded from this activity. The Foundry at Madison has the opportunity to tie together the fragmented destinations through a network of great streets, and in doing so, create a sense of place that is currently lacking.

“The Street is the river of life of the city, the place where we come together, the pathway to the center”
-William H. Whyte
The Foundry at Madison
Program and Precedents

The GO Cincinnati Plan (2008) was devised to increase Cincinnati’s tax revenues through targeted economic development initiatives and place-based developments. The Madison Corridor was identified as one of three economic opportunity areas for the city, and as such, The Foundry is programmed to respond to the goals outlined in the plan.

“If we can develop and design streets so that they are wonderful, fulfilling places to be – community-building places, attractive for all people – then we will have successfully designed about one-third of the city directly and will have had an immense impact on the rest.”

-Allan Jacobs
The Foundry at Madison
Creating a Sense of Place

The Foundry at Madison is a mixed-use development that includes office, retail, residential and entertainment spaces, in addition to the existing regional retailers, in order to promote diverse user groups.

Its main attractions include an amphitheater and cinema. The amphitheater is located at the end of the pedestrian corridor, and serves as park space when it is not being used for other local functions. There are other large retail spaces that could accommodate other entertainment venues.

The industrial heritage of Oakley is maintained by The Foundry. Through adaptive reuse, iconic architectural elements remain on the site to enhance the character and serve as wayfinding devices.

By providing an additional exit off of I-71 onto Robertson Avenue, the sense of place is reinforced by directing traffic through the smaller scale, historical areas as opposed to encountering the generic big box retailers to the north of the site upon arrival.

The pedestrian walkways from Oakley are extended north to The Foundry so that the site is no longer isolated and promotes a walkable lifestyle, connecting to other communities along the Madison Corridor.
Madison Corridor Framework Plan

Industrial Parks Vision

PROBLEM STATEMENT:
Cincinnati has a multitude of abandoned industrial sites that are contributing to storm-water runoff and other ecological problems. In addition, transportation in Cincinnati is primarily automobile-based and there is limited connectivity to all of Cincinnati's green spaces.

VISION STATEMENT:
Our vision is to rehabilitate abandoned industrial sites in Cincinnati by making them public green-space. These sites will be linked with existing parks and green-space by means of alternative transportation. This in turn will provide an informative environment of Cincinnati's industrial history and culture. It will help with the current storm-water runoff issues and improve the environmental quality of the existing brownfields. Socially, it will offer an opportunity for community engagement and result in a stimulation of commerce and growth for the surrounding area.

Theory

The methodology for our vision uses Kevin Lynch's five point theory. By setting up links to the paths, nodes, landmarks, districts, and edges to the site will better the development as a complete entity.

Paths:
The paths are the medium that link all of our proposed activities together through alternative means of public transportation.

Nodes:
The nodes in our design will be stops along the public transit routes as well as points where various paths cross.

Landmarks:
From these existing brownfield sites in Cincinnati, we will transform the traditional industrial symbol into a prominent place for public use.

Districts:
By linking all of these sites together, we are creating a district that will better define Cincinnati's historic character.

Edges:
Each individual site is defined by green-space, which will act as a signifier of its typology.

Precendents

INDUSTRIAL HERITAGE TRAIL
Ruhrgebiet, Germany

GAS WORKS PARK
Seattle, Washington

HIGH LINE
West Manhattan, New York
Deconstructing the Big Box

Problems

Low Wages for Employee
City does not receive as much income tax as result

Sea of Parking
Vast amount of parking not being used on a daily basis
High volume of storm water run-off
Revenue lost because parking is taken from developable land

Surplus Model
Not meant for an urban setting
Land is cheaper in the suburbs
The value of land is too great for another big box
Too much highway frontage was lost to the big box

Intensely Focused
Does not even attempt to integrate itself into the city fabric
It is stand alone island in sea of parking

Aesthetically Unpensive
Non descript box that is in no way site specific
Does not meet the character of the urban surrounding

The Big Box Retail Store has become a relatively negative phrase when it comes to development. It is important to understand how it can be broken down to better serve the city, and even those in an example of a better way to develop. The transformation of an existing industrial building into a Jungle Jim's grocery store has been important in tackling the issues of the Big Box; low wages, large parking lots, suburban models, internally focused buildings, and a general non-descript appearance.

With Jungle Jim’s grocery store employees get paid better than Big Box employees, and by incorporating JJs headquarters into the body of the building, higher paid managers and executives are brought into the area, therefore more income tax comes into the city and employees can use surrounding amenities.

The use of parking is eliminated by housing parking in existing portions of the building. This vertical development allows a reduction in the need for land to be used for non revenue generating elements.

Turning the Big Box into a multi-story complex of mixed uses means that we have broken down the building into office, grocery, and parking. This allows for more uses, more entries, and more opportunities to look out and connect with the surroundings, and the attachment of Cafe's and retail create a better relationship at ground level and can relate better to the urban context.
Madison Corridor Design Strategy

Programming for the Millacron Site

**Work**

Metalwork Gardens is situated in a variety of places for people to work. The Northeastern section of the site is heavily used for small-scale office space. Some small retail and residential is dispersed, providing a diverse and vibrant feel. Centred around this area is an existing power plant, which has been transformed into a sculptural centerpiece with public space surrounding it for all people to enjoy all around the clock.

**Live**

Unlike most residential units, Metalwork Gardens has a main concentration of units on the Southwestern portion of the site. Here are a variety of townhouses and apartments that are all very pedestrian-friendly and have a lot of accessible green space and public gathering spaces for the residents to enjoy.

**Eat**

The southwest quarter of the Metalwork Gardens highlights its basic lifestyle source of food. Jungle Jim's Grocery Store is the main food feature, offering a diverse range of exotic foods as well as an interior market that demonstrates the quality of buying locally grown foods. Neighbor-oriented supermarkets and gardens feed the Metalwork community and provide a more sustainable way to live.

**Play**

Metalwork Gardens also provides many opportunities for its users to recreate. One of the key features is a cinema, using a piece of one of the existing buildings. In this area is a large public gathering space and a grassy amphitheater where people can sit and enjoy nighttime movies being played off the side of the cinema building.

**Multi-Purpose Units**

Throughout the site are a number of units, approximately 1,600 sq ft in size, that provide an opportunity for small-scale development to be scattered throughout the site. These similarly articulated units can host small offices, small retail stores and restaurants, and even some residential units. This way there is a mix of uses that relate back to the industrial history of the site, while remaining clearly modern in style, to confirm its status as an add-on feature.

**Phasing Plan**

The plan for development is divided into phases that would most likely take place between a 10-15 year time span, as the first 3 being closer together.
Madison Corridor Design Strategy

Masterplan for the Millacron Site

Go Cincinnati Plan Goals and Figures

Benefits of Green

Photovoltaics
Solar Radiance: 4.4 kWh/sq m/day
Available Roof Area: 358,000 sq ft
Avg. Monthly Output Supplied: 404,718 kWh

System Size: 3572.00 kW

UESB

RESIDENTIAL

For Sale Multi    488 units    77%  181,460 sf   7%
For Rent Multi   212 units    77%  79,240 sf   3%
Single Family    0 units       0%  260,700 sf   10%

OFFICE

Workplace Units  416,600 sf    93%  96,500 sf   4%
Lab and R&D   26,400 sf    88%  26,400 sf   1%

COMMERCIAL

Jungle Jim's   68,200 sf      68,200 sf   3%
Other Retail   74,100 sf      54,900 sf   2%

SOCIAL CULTURAL

Entertainment  163,700 sf      138,100 sf   5%
Multi Purpose Units  121,600 sf      60,800 sf   2%

Green Space          1,053,474 sf   57%

PARKING

711,400 sf    83%  430,400 sf   16%

Solar Radiance:
Available Roof Area: 358,000 sq ft
Avg. Monthly Output Supplied: 404,718 kWh

R E D U C E S
carbon
dioxide
emissions
by 13,000 lbs

Carbon Emissions:
The electricity replaced would have caused the release of 7,284,924 pounds per year of carbon dioxide (which promotes global warming). Driving 8,072,572 miles in an average car emits an equal amount.

Incentives:
Federal Incentives
Tax Credit:
30% Federal

State Incentives
Property Tax: Exempt Energy Conversion Facilities Corporate

Savings:
Estimated Cost:
The approximate cost is an estimation based on a price of $8/watt. This is the average rate, including parts and installation, for systems above 2kW.

Post Incentive Cost:
The post incentive cost is an estimation based on the available credits/rebates for your area. This may include kWh production incentives for up to 25 years if applicable in your area. This provides an approximation of the local/state incentives, and should only be used as an approximation.

Avg. Monthly Savings:
25 Year Savings:
The 25 year savings is based on the amount of electricity cost you save over a 25 year period assuming a yearly 4% increase in utility rates.

25 Year ROI:
Break Even:

Other government incentives are listed here: http://www.dsireusa.org/incentives

http://solar.coolerplanet.com/Articles/solar-power-cost.aspx

Benefits of Green

Q = CIA
impervious area:
c=0.9 which is a runoff coefficient.
I = 3.6 inches of rainfall over a 24 hour period
A = 65 acres.
Industrial To Green Along The Bike Loop

The abandoned sites along the trail will be transformed from industrial remains into green spaces that highlight Cincinnati’s industrial culture and past as well as propel the city forward with a new thinking about green infrastructure and sustainable practices. While the sites have a primary role of either Food Production, Water Catchment, Water Treatment, or Recreation, each site consists of all of these elements and more. Each site will be a great amenity to its surrounding community but as a part of a larger framework, these sites have a real opportunity to positively influence the further development of Cincinnati.

Food Production - Currently Turpin Farm harvests sod for lawns, but originally it was established as a produce farm that grows crops such as corn and soybeans. There is great opportunity for Turpin Farms to become a greater part of the larger framework and can feed the city of Cincinnati. In addition, adjacent industrial buildings could be converted to house food processing equipment and agricultural waste management center. The close proximity of production to processing allows for Cincinnati to truly celebrate locally grown foods.

Water Catchment - A water tower remains on this parcel reminding one of its industrial importance. That symbol of industry can now be seen as a symbol for green water catchment on site. New single family and some multi-family housing will feature rain barrels and cisterns that will capture rain water as a means to water community gardens and some agricultural land.

Water Treatment and Education - Water run-off is a major issue in many cities. Large parking lots and other hard surfaces pollute the fresh rain water as well as increase the demand on the combine sewer system. By planting a large area of land devoted to Bio-Retention, water from near by big box retail parking can be naturally treated and the demand of the sewer pipe will reduced. Existing buildings can become water treatment centers or educational center that can inform the community about green infrastructure and his benefits.

Recreation - Recreation is a key component to all the sites that are being considered for development or reuse along the 4 mile bike trail loop. By incorporating recreational uses into the site and to the other functions of the site, it is a way to educate a healthier life style, and reconnect its users to Cincinnati’s history. In this particular site the bike trail runs through and branches off to connect the users to event venues, community gardens, greenhouses, community centers, and typical commercial along Red Bank Expressway.
Form Based Code and New Urbanism

In an investigation to develop a desirable community, concepts from New Urbanism and Form Based Code were applied to the site. The intent is to create a walkable community that is connected to the surrounding neighborhoods. The grid neatly organizes the site, is walkable, and relates to the scale of other grids in the region. The grids are broken into zones based upon density and character, not use. This allows for market conditions to determine what the demand is while maintaining the qualities of the district.

Phase I connects the site to Madison Rd and retaining a portion of the long warehouse, power plant, and art deco office building. Phase II expands the grid into the Cast Fab site, the density is reduced to relate to the residential neighborhood across the railroad tracks. Phase III extends across the tracks to the south and into the Milacron site to the north. Phase IV extends across the big box retail site, in anticipation of their possible demise, and re appropriates the Crossroads site. Each phase includes additional greenspace, spreading it throughout the district.
Niehoff Urban Studio

Great Streets and Gateways

T3 Zone
- least dense zone
- 2 stories max
- hip and gable roofs
- front porch permitted
- landscape 50% of setback

T4 Zone
- more dense than T3
- 3 stories max
- hip, gable, and flat roofs
- front porch permitted
- 25 sf recess permitted
- landscape 25% of setback

T5 Zone
- most dense zone
- 2 stories min, 4 stories max
- flat roofs only
- 25 sf recess permitted

Street Hierarchy

The establishment of street hierarchies organizes the flow of vehicular and pedestrian travel. Although a street may traverse multiple T zones, the design of the street remains the same. This allows for a cohesive streetscape along a given corridor.
Vauban, Germany is a neighborhood in Freiburg, Germany that uses pedestrian-only streets to promote community and limit vehicle use. There is a transit line through the district and 70% of the residents do not own a car since there is little need to have one. The Oakley site can utilize a streetcar line and pedestrian streets to develop community and connect with the surrounding region. The intersection of Oakley Blvd and Madison Rd can serve as a mini transit hub and a pedestrian gateway to the district. Parking garages can also be accommodated.

The retained existing structures can serve renewed purposes while maintaining some history of the site in the new district.

Maximum Ground Floor Area
- Civic: 89,836 sf
- T5: 1,367,940 sf
- T4: 2,049,156 sf
- T3: 725,346 sf
- Special Exception: 525,287 sf

GO Cincinnati Report
- Office: 450,000 sf
- R&D Industrial: 30,000 sf
- Retail [local]: 115,000 sf
- Retail [regional]: 450,000 sf
- Townhomes: 160 units
- Multi-unit Residential [sale]: 630 units
- Multi-unit Residential [rent]: 275 units
Improvements on Madison Road and Red Bank Expressway

Under the supervision of Professors Richard Miller and Frank Russell, engineering students developed their capstone projects with a focus on the MLK/Madison Corridor and the neighborhood of Madisonville. The proposals presented here address three main issues. The first issue is the need for the redesign of intersections along Red Bank Expressway in order to accommodate future increase in traffic anticipated through the implementation of the Easter Corridor Plan. The second issue is the need for redesign of the low rail bridge at Madison and Kenwood Roads. The third issue is the redesign of Madison Road in the neighborhood of Madisonville in order to accommodate multi-modal transportation options such as pedestrian, transit, and bicycle. The proposals also include streetscape interventions with incorporation of medians, street furniture, and street lighting.
The future of Red Bank Expressway:
Interchange design at Duck Creek, Madison, and Erie

by Justin Berning, Breana Roth, Josh Trauger, Jordan Ulrich, and Micah Whitt

This team focused on design solutions for interchanges along Red Bank Expressway in order to reduce existing delays and accommodate future increase of traffic. Using a simulation program, the group was able to compare multiple design alternatives. Taking into consideration land use requirements, cost, pedestrian movements and community pride, the team detailed and analyzed two possibilities of interchange design: tight diamond and roundabout. Delays and levels of service were computed for both alternatives. Also, the SWOT analysis of each alternative resulted in the identification of strengths, weaknesses, opportunities, and threats of each proposed solution.

Redesign of low overpass at Kenwood and Madison

by Joshua Harmon, Troy Sampson, David Swartz, Zeb Toman, Tom Wiest, and Taylor Van Vliet

This team addressed the existing rail bridge located at Kenwood and Madison Roads. The bridge is dilapidated and presents problems with clearance height which is lower than Ohio's statutory limit. The proposal of this group of students is the redesign of the bridge in order to solve the clearance and wear problems. The design process included the analysis of live and dead loads as well as fatigue. Possible modes of construction were also considered.

Redesign of Madison Road

by Lisa Borysiak, Sarah Grillot, Sean McIntosh, Charles Smith, and Andrew Wolf

This team focused on engineering and streetscape solutions to transform Madison Road into a “Great Street”. The project area was defined as the stretch between West Eastwood Circle to the west and Plainville Road to the east. The design process took into consideration safety, aesthetics, and parking issues as well as the use of the right-of-way by vehicles, pedestrians, and cyclists. Design elements include roundabouts, boulevards, and protected parking.
The Future of Red Bank Expressway: 
Interchange Design at Duck Creek, Madison, and Erie

Current Redbank Expressway Conditions
Location Map of Study Area

Design Analysis Tools
VISSIM Traffic Simulations

Delays & Level of Service
Delays Notes
All delays are shown in seconds per vehicle. Existing conditions data is shown in the green colored bars while future data (2030 conditions with "No-Build") is shown in the blue/yellow colored bars

Levels of Service
A - Free Flow
B - Reasonably Free Flow
C - Stable Flow
D - Approaching Unstable Flow
E - Unstable Flow
F - Forced/Breakdown Flow

Land Use Requirements & Costs
Expressway Realignment at Erie Ave.

Community Conscience Design
Sidewalk Design at Madison Road

Interchange Design Alternatives
Two Study Alternatives:

Tight Diamond Interchanges or Roundabout Interchanges?
The Future of Red Bank Expressway: Interchange Design at Duck Creek, Madison, and Erie

Final Tight Diamond Interchange (TDI) Design
Duck Creek - Red Bank Road (Option 1)

Strengths:
- Traditional layout
- Easier to access Erie Ave

Weakness:
- Requires an increase in land acquisitions
- Grades make pedestrian movements difficult

Opportunities:
- Relieve traffic on Red Bank Expwy.
- Gives area an up-to-date look

Threats:
- Will take land away from businesses
- Difficult to sync signals in close proximity

Delays & Level of Service

Delays Notes:
All delays are shown in seconds per vehicle using future corridor demand. Existing conditions data is shown in the colored bars while design data is shown in its respective section clip.

Levels of Service:
A - Free Flow
B - Reasonably Free Flow
C - Stable Flow
D - Approaching Unstable Flow
E - Unstable Flow
F - Forced/Breakdown Flow

MORNING
EVENING

Duck Creek - Red Bank

= Proposed
= Future (No-Build)
The Future of Red Bank Expressway: Interchange Design at Duck Creek, Madison, and Erie

Roundabout Design Evolution at Duck Creek - Red Bank Road

Design Revisions:
- Pre-Revision 1 (not shown) – Large roundabout w/signal at Duck Creek & Red Bank Rd.
- Revision 1 – Large roundabout over Red Bank Expwy. w/ small roundabout at Duck Creek
- Revision 2 – "Tear Drop" roundabout with single continuous lane throughout.

Note: Revisions made using feedback and recommendations from City of Cincinnati Engineers and Officials, IDS faculty and staff, and the group members themselves.

Final Roundabout Design
Duck Creek - Red Bank Road

Delays & Level of Service

Delays Notes
Delays are shown in seconds per vehicular using future corridor demand. Existing conditions data is shown in the colored bars while design data is shown in its respective intersection clip.

Levels of Service
- A - Free Flow
- B - Reasonably Free Flow
- C - Stable Flow
- D - Approaching Unstable Flow
- E - Unstable Flow
- F - Forced/Breakdown Flow

Strengths:
- Draws attention to area
- Reduce accidents vs. traditional intersection
- Allows traffic to flow without stopping
- Reduce road and land use footprint

Weakness:
- New traffic pattern to drivers in community
- The construction costs could be costly due to amount of bridges needed

Opportunities:
- Attraction that could draw people to area
- Create "gateway" into Madisonville

Threats:
- Driver resistance to new traffic concepts

SWOT Analysis:
Madisonville—Redesign of Low Overpass at Kenwood and Madison

Problem Statement—Clearance and Wear Problems

Statutory Height in Ohio is 13’ 6” — Current Bridge is 12’ 0”

Existing Bridge – Notice the 12’ Clearance Sign

Crumbling Foundation

Rusted Through Members

Bridge is 94 years old

Diagram Shows Cuts/Fills Needed to Conform to Statutory Height Requirements. Black Lines are Existing, Red Lines are needed.

Design Analysis — Beam Loads

13,000 lb. 13,000 lb. 13,000 lb. 13,000 lb. 13,000 lb. 13,000 lb. 13,000 lb. 13,000 lb.

Impact Load

52,000 lb. 52,000 lb. 40,000 lb. 80,000 lb. 80,000 lb. 80,000 lb. 80,000 lb. 80,000 lb.

Cooper Load

Longitudinal Girder

DL=600 lb./ft.

Design Considerations for Fatigue

According to AASHTO code Table 15-1-10

- A Designation of Stress Category B is needed for Cycles exceeding 2,000,000.
- Cycles Control Connections.
- We will use High Strength Steel Bolts Welded Built-up Sections in our Design.
- These connections both conform to Stress Category B.
Madisonville– Redesign of Low Overpass at Kenwood and Madison

Final Design

**Possible Mode of Construction**

- A Lay Down Would be Needed to Build the Bridge.
- A Bus Rest Stop is Located less than 200 ft. from the Bridge.
- All Area Required could be Attained by Utilizing this Area.
- No cost to City.

- Street and Rail Down Time is a Concern.
- Using a Self-Propelled Modular Transporter Could Ease Problems
- Bridge can be built independently of Foundations.
- Bridge Could be Taken Down one Night and the New Bridge Installed the Next Day.

**Finished Product View**

- Bridge Recessed to show Depth of Bridge
- Painting Schemes on Bridges Possible
- Security Fence
- Landscaping Possible
- “Arrival” Sign

**Isometric Views of the Final Bridge Design**
Redesign of Madison Road

**Project Description**

For this project, the focus will be on the engineering aspects and visual design of Madison Road in Madisonville to make it a "Great Street". Specifically, the plan has three goals:

1. Convert Madisonville into a destination rather than a route by giving it a sense of place.
2. Improve movement and access, whether pedestrian, bicycle, or vehicular.
3. Visually enhance the area to lure people into Madisonville.

The design will incorporate modern innovation, as well as the beautification of Madison Road. Design features applied to the proposed changes include:

1. Roundabouts
2. Boulevards
3. Focus on pedestrian and cyclists
4. Protected Parking
5. Geometric adjustments

**Project Limits**

The design will incorporate modern innovation, as well as the beautification of Madison Road. Design features applied to the proposed changes include:

1. Roundabouts
2. Boulevards
3. Focus on pedestrian and cyclists
4. Protected Parking
5. Geometric adjustments

**Madison Boulevard**

With the redevelopment of the Nutone site, as well as the need to improve and/or modify the intersection of Red Bank Expressway and Madison Road, it is an opportune time to add a boulevard improvement to enhance the area as well as the roadway.

**Madison at Stewart Intersection**

Geometric Option 1

Geometric Option 2

**Signalization Option - Phase 1**

**Signalization Option - Phase 2**

**Signalization Option - Phase 3**
**Redesign of Madison Road**

**Madison Sharrows**

By eliminating the time specific on street parking, the street is now able to serve both cyclists and vehicles to its full potential 100 percent of the time.

**Cost Estimate Data**

![Cost Estimate Data Chart](source: www.baristanet.com)

**Madison Business District**

- Incorporate the use of gardens at the end of each protected parking location to aid in storm control and beautification.
- To enhance the pedestrian and vehicular experience, use stamped concrete for crosswalks.
- Reduce light pollution using particular light structures while maintaining a safe environment for pedestrians.
- Encourage bicycle usage using a simple repair station for minor inconveniences.
- Ensure a place for commuters, whether vehicular or pedestrian, with parking meter bike racks.

**Camargo Roundabout**

Option 1

- Madison and Stewart Intersection Options
- Camargo Roundabout Options

Option 2

Option 3

![Camargo Roundabout Options](source: www.google.com)

![Cost Estimate Data](source: www.google.com)

![Option 1](source: www.google.com)

![Option 2](source: www.google.com)

![Option 3](source: www.google.com)
The capstone projects of the three groups of engineers presented here address issues related to environmental preservation and sustainability in the area of Madisonville. Proposals to improve the quality of the natural and man-made environments focused on three main issues. The first group applied aspects of the current stream restoration theory in order to update the 1976 Plan for the Little Duck Creek Corridor. The second group focused on green stormwater infrastructure by creating a Best Management Practice decision tree and applying it to the Stewart Avenue in Madisonville. Finally, the third group proposed the incorporation of green infrastructure to MedPace’s proposed redevelopment plan for the former NuTone site (at the corner of Red Bank Expressway and Madison Road). The cost and benefits comparison between MedPace’s plan and the green infrastructure proposed here may assist the developer’s decision-making process.
Stream restoration:
Updating the 1976 Plan for the Little Duck Creek Corridor
by Erik Briedis, Keith Leiter, Johnathan Moor, and Jordan Vogt

This team addressed the restoration of the Little Duck Creek Corridor based on the current stream restoration theory. While the 1976 Plan for the Little Duck Creek was based on the channelization theory which prescribes high level of interventions on the natural characteristics of the stream, the current stream theory prescribes the use of natural materials and the maintenance of the stream’s natural aspects. This group of students compared the recommendations of the 1976 plan to the current stream conditions and land uses along the Little Duck Creek corridor. Finally, the team analyzed different categories of community interest on the project describing the existing conditions, the proposed interventions, and the possible issues of each intervention.

Green stormwater infrastructure of Madisonville
by Paige Forney, Ian Grimes, Amber McDonough, Austin Meyerrenke, Timothy Rice, and Matthew Umberg

This team created a Best Management Practice decision tree in order to provide suggestions of green stormwater infrastructure to any area given a few design parameters. The group applied the decision tree to the case of Stewart Avenue within Madisonville. Using a ranking system, the group was able to identify the most effective locations in which rain gardens and rain barrels may be implemented. Using the green infrastructure options as suggested by the decision tree, the team was able to redesign a section of Stewart Avenue. The proposed redesign could reduce the impact of a 10 year rainfall event to the impact caused by a 2 year rainfall event.

MedPace redevelopment of the NuTone site:
Proposed green infrastructure
by Nick Barhorst, Dane Brown, Samantha Schmitt, and Parker Suess

This group focused on the redevelopment of the site at the corner of Red Bank Expressway and Madison Road. Formerly occupied by the NuTone company, the site will be the new headquarters of MedPace. Based on the current design plan of MedPace, this group proposed the use of green infrastructure that would reduce the amount of impervious surface and reduce runoff while maintaining the number of parking spaces above the required minimum. Proposed design components include bioretention, pervious concrete, and green roofing. The cost and benefit analysis comparing the project as proposed by MedPace and the green infrastructure proposed by the students is a tool which can be used by the developer during the decision-making process.
## STREAM RESTORATION: 
UPDATING THE 1976 PLAN FOR THE LITTLE DUCK CREEK CORRIDOR

### STREAM RESTORATION THEORIES

<table>
<thead>
<tr>
<th>1976</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change nature for the advancement of mankind&lt;br&gt; Straight&lt;br&gt; Wide&lt;br&gt; Hard&lt;br&gt; Used as tool&lt;br&gt; Little oversight or central planning</td>
<td>Change human habits for the good of all&lt;br&gt; Varying depth&lt;br&gt; Meandering&lt;br&gt; Seen as asset&lt;br&gt; Natural materials&lt;br&gt; Rosgen’s Method of Stream Rehabilitation</td>
</tr>
</tbody>
</table>

### CREEK OPTIONS

- **concrete culverts**: use of natural methods to control bank erosion, and to restore natural stream habitat
- **do nothing**
- **soil bioengineering**: heavy stones used to protect soil from the action of fast moving water
- **vegetated rip-rap profile**: creates varying depth for wildlife and decreases bank erosion
- **rip-rap**
- **cross-vane**

### Academic Evaluation

- NOAA and USGS review of 345 sites mostly positive, but inconclusive
- Long-term monitoring not available
- “We suggest an interim approach to sequencing rehabilitation projects that partially addresses these needs”

**North American Journal of Fisheries Management, June 2008**

### Economic Benefits

- 2004 research conducted in Monongalia county, West Virginia by WVU
- Deckers Creek severely impacted by “trash” and “sewage”
- $8.81/household/month in economic value for scenic and aquatic value
- If swimming and fishing is available, $16/household/month
### Categories

<table>
<thead>
<tr>
<th>ACCESSIBILITY</th>
<th>EXISTING</th>
<th>PROPOSED</th>
<th>ISSUES/DRAWBACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-mulched path (hard to find, very small)</td>
<td></td>
<td>Follow 1976 Report including:</td>
<td>Acquiring land for construction (not all land by creek is publically owned)</td>
</tr>
<tr>
<td></td>
<td>Clean-ups by Citizens on Patrol and Local Scouting Troops</td>
<td>Build paved walking path along length of creek</td>
<td>Interruption of people residing by creek during construction</td>
</tr>
<tr>
<td></td>
<td>Combined Sewer Overflows (CSOs) running into creek</td>
<td>Install seating (benches, tables, etc.)</td>
<td>Who will empty recycling and trash receptacles?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Foot bridges across the creeks</td>
<td>If CSOs eliminated, where will water go? (See Stormwater presentation for ideas!)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Small parking lots</td>
<td>Persuading people to keep area clean</td>
</tr>
</tbody>
</table>

#### Cleanliness

<table>
<thead>
<tr>
<th>EXISTING</th>
<th>PROPOSED</th>
<th>ISSUES/DRAWBACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor lighting in parks only (mainly Bramble Park)</td>
<td>Install lighting along pathway</td>
<td>Power sources for lighting and security cameras</td>
</tr>
<tr>
<td></td>
<td>Install security cameras along parts of path</td>
<td>Lighting will interrupt natural habitat of creek</td>
</tr>
<tr>
<td></td>
<td>Construct path to accommodate police vehicles (bikes, etc.) to patrol</td>
<td>Expense of security cameras and lighting</td>
</tr>
</tbody>
</table>

#### Safety & Security

<table>
<thead>
<tr>
<th>EXISTING</th>
<th>PROPOSED</th>
<th>ISSUES/DRAWBACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A creek worn by years of human intrusion and lack of care</td>
<td>Use new “hands-off” restoration techniques in order to creek to regain natural balance</td>
<td>Takes time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seen as the “lazy” solution at times</td>
</tr>
</tbody>
</table>

#### Natural

<table>
<thead>
<tr>
<th>EXISTING</th>
<th>PROPOSED</th>
<th>ISSUES/DRAWBACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Proving the the “natural” creek will bring value to the community</td>
</tr>
</tbody>
</table>

### Comparative Analysis

<table>
<thead>
<tr>
<th>1976 Recommendation</th>
<th>Current Land Use and Stream Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PLAINVILLE RD.</td>
</tr>
<tr>
<td></td>
<td>HOMER AVE.</td>
</tr>
<tr>
<td></td>
<td>BUCKINGAM PL.</td>
</tr>
<tr>
<td></td>
<td>ROE ST.</td>
</tr>
<tr>
<td></td>
<td>BANCROFT AVE.</td>
</tr>
</tbody>
</table>

### Interests of Madisonville Community in the Project

- Erik Briedis
- Keith Leiter
- Johnathan Moor
- Jordan Vogt

Spring Quarter 2009

Niehoff Studio
Niehoff Urban Studio
College of Engineering
Great Streets and Gateways
Great Streets and Gateways
Green Stormwater Infrastructure of Madisonville, Ohio

Problem Statement
There are several areas throughout Cincinnati where infrastructure has began to deteriorate due to chronic drainage problems. This design uses Stewart Avenue in Madisonville as a case study to demonstrate the application of green infrastructure to one such area. The design was developed using a suitability process intended to provide green infrastructure suggestions to any area given a few existing design parameters.

Traditional Approach
- Drainage systems
- Reactive (Solving Problems)
- Protect Property
- Drainage focus only

Integrated Approach
- Ecosystems
- Proactive (Preventing Problems)
- Protect Property and Resources
- Holistic (Consider Land Use)

Best Management Practices (BMPs)
BMPs are techniques used to control stormwater runoff quantity and quality in the most cost-effective manner. As the percentage of impervious area increases, BMP use has become increasingly important, especially in urban areas. It is important to note, however that BMPs will fail if improperly located or maintained.

The following BMPs have been incorporated into a decision tree intended to aid community leaders or developers in identifying the most effective BMP to manage the stormwater runoff on their particular site.

Best Management Practice Decision Tree

Ranking Systems
A ranking system using property and building characteristics was developed to help identify the most effective locations in which rain gardens and rain barrels may be implemented. The following are the results from the case study on Stewart Avenue.

Rain Gardens

<table>
<thead>
<tr>
<th>Address</th>
<th>Area (ft²)</th>
<th>Impervious Area (ft²)</th>
<th>% Impervious Area</th>
<th>Distance from Ross CLP (ft)</th>
<th>% Impervious Rank</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>4824 STEWART AVE</td>
<td>3909</td>
<td>1970</td>
<td>50.4%</td>
<td>125</td>
<td>59.5</td>
<td>1</td>
</tr>
<tr>
<td>5615 MADISON RD</td>
<td>76230</td>
<td>46520</td>
<td>60.2%</td>
<td>179.1</td>
<td>77.6</td>
<td>2</td>
</tr>
<tr>
<td>5515 MADISON RD</td>
<td>30364</td>
<td>37530</td>
<td>58.2%</td>
<td>179.1</td>
<td>77.6</td>
<td>2</td>
</tr>
</tbody>
</table>

Rain Barrels

<table>
<thead>
<tr>
<th>Address</th>
<th>Area (ft²)</th>
<th>Impervious Area (ft²)</th>
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<th>Distance from Ross CLP (ft)</th>
<th>% Impervious Rank</th>
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<td>2</td>
</tr>
</tbody>
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Green Stormwater Infrastructure of Madisonville, Ohio

1. Rain Gardens
2. Rain Barrels
3. Filter Strips
4. Dry Bioswale
5. Wet Bioswale
6. Permeable Pavement
7. Retention Pond
8. Urban Forestry
9. Green Roof
10. Wetland/Shallow Marsh

Resources
- Best Management Practices (BMPs)
- Traditional Approach
- Integrated Approach
- Problem Statement
- Ranking Systems
- Green Infrastructure Options
- Great Streets and Gateways
What is an overflow structure?
It is designed to create a bypass to accommodate periods of intense rainfall in order to prevent flooding.

Four overflow structures were implemented in this design as shown in the figure on the left.

What is a 10 year design storm?
In any given year there is a 10% chance that a storm of that magnitude will occur.

What does this mean?
The proposed storm water infrastructure will sequester approximately 25,000 gallons of water. That has the effect of reducing the impact of a 10 year rainfall event to that of a 2 year rainfall event.
MedPace Redevelopment of the NuTone Site: Proposed Green Infrastructure

Why Green?

Cincinnati is currently one of 772 cities that contain combined sewer systems. EPA estimates that individual overflows occur between 50 to 80 times per year. These overflows result in 1.2 trillion gallons of raw sanitary sewage and industrial waste being discharged into receiving waters each year. (EPA) In 2004, Cincinnati signed a $1.5 billion Consent Decree with the EPA to work to reduce and eliminate combined sewer overflows.

As with any new urban development, stormwater management is necessary. Most developments use the conventional storm sewers to catch and detain stormwater runoff from their site. However, the traditional stormwater management does not address the problem of pollution. Post-construction best management practices (BMPs), such as bio-retention, permeable concrete, and green roofs do address pollutant removal. These BMPs address not only the quality of water, but the quantity as well, helping to reduce Cincinnati’s combine sewer overflows.

Current MedPace Design

Problems
1) Required amount of parking
2) Traditional building layout
3) Amount of impervious area

Proposed Design

Solutions
1) Reduced based on code
2) Left as is in order to be realistic
3) Reduced using green infrastructure

Site Changes Comparison

Parking

2242 Spaces

1812 Spaces

1684 Spaces

10-yr Runoff (cfs)

167

106

33

14

Proposed (MedPace)  Proposed (UC)  Required

Surface Descriptions

GREEN SPACE

PERMEABLE CONCRETE

GREEN ROOF

GREEN SPACE

IMPERVIOUS

IMPERVIOUS

MedPace  Proposed
MedPace Redevelopment of the NuTone Site: Proposed Green Infrastructure

**Proposed Design Components**

- **Bioretention**
  - Description: Utilizes the chemical, physical, and biological properties of plants and soils. Controls the quality and quantity of stormwater runoff. Seeks to mimic pre-existing site conditions.
  - Benefits: Reduces runoff to storm sewers, improves water quality, reduces heat island effect, creates landscape diversity to create a sense of space.

- **Pervious Concrete**
  - Description: Reduces runoff by allowing infiltration of rainwater through the pavement. Will be utilized only for parking spaces and low traffic areas.
  - Benefits: Reduces runoff to storm sewers, improves water quality, aesthetic improvement over traditional paving.

- **Green Roof**
  - Description: Consists of a soil layer, a drainage layer and an impermeable membrane. Utilizes special plants to withstand extreme conditions found on roofs. An extensive roof would use grasses and small plants to reduce weight.
  - Benefits: Reduces runoff to storm sewers, increases the lifespan of the roof, reduce heating and cooling costs for the building, reduce the CO₂ impact of the building.

**Cost Analysis**

- **Pipe Network**
  - Construction Cost: $523,155
  - Life Span: 50 years

- **Bio Detention**
  - Construction Cost: $310,080
  - Maintenance Cost: $2,067/yr
  - Life Span: 50 years

- **Standard Concrete**
  - Construction Cost: $1,821,418
  - Maintenance Cost: $11,080/yr
  - Life Span: 30 years

- **Porous Concrete**
  - Construction Cost: $928,146
  - Maintenance Cost: $6,305/yr
  - Life Span: 18 years

- **Standard Roof**
  - Construction: $473,270
  - Maintenance: $20,712/yr
  - Life Span: 23 years

- **Green Roof**
  - Construction: $1,242,720
  - Maintenance: $77,870/yr
  - Life Span: 50 years
  - Additional Savings of 25% of energy cost.
The work presented here resulted from the seminar course “Urbanism: Observing the City” under the supervision of Professor Frank Russell. The interdisciplinary course included graduate students in Architecture and undergraduate students of the Honors Program from a wide range of disciplines (urban planning, architecture, design, biology, mechanical engineering, finance, and linguistics). Under this assignment students observed and analyzed both quantitatively and qualitatively an urban issue of their choice. The methodological and theoretical approach of each work presented here were based on theories discussed in class.
Observing the City
Finding Place in Oakley Square

Objective
Determine if Oakley Square exhibits "Genius Loci", or "Spirit of Place", based upon the teachings of Christian Norberg-Schulz

Mode of Inquiry
Empirical-Inductive: Observe a given phenomenon
Rely on experience and observation alone

Methodology
- Picturesque and place studies
1. Observe physical attributes, pictures
2. Record feelings of experience in writing
3. Remain in each spot for extended period, revisit
4. Describe places in terms of adjectives, prepositions

Criteria for "Genius Loci"
Orientation: Protection, enclosure
Identification: Materials and formal constitution
Boundaries: Articulation
Imageability: Locally-determined
Centralization: Facades

Nature
- Complements man-made structures
- Multiple functions: protection, barriers, enclosures, decoration
- Oakley Square has plants outside every store, which contributes to its character and creates a peaceful atmosphere

What gives Oakley its 'Genius Loci'? 
- Barriers are used in front of parking and along sidewalks to separate cars from pedestrians, adding a sense of security
- The square is mostly unique, local businesses which adds character and a sense of identity for residents
- Many different materials are used on buildings and walkways
- Buildings have interesting, colorful roof borders and moldings
- Signs on streets and buildings make it easy to navigate
- Enclosed median creates centralization and a peaceful resting spot

Madison Rd.
Markbreit Ave.
Isabella Ave.
Madison Ave.
Allston St.

Place: Blue Manatee, 3054 Madison Road
affectionate, comforting, warm

Observations
Place: Public Library, 4033 Gilmore Ave.
captivating, natural, tranquil

Identification:
- murals add local color
- Awning has unique design, adds to character

Findings

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Identification</th>
<th>Genius Loci</th>
</tr>
</thead>
<tbody>
<tr>
<td>security</td>
<td>materials</td>
<td>-</td>
</tr>
<tr>
<td>enclosure</td>
<td>locally-determined</td>
<td>=</td>
</tr>
<tr>
<td>imageability</td>
<td>articulation</td>
<td>-</td>
</tr>
<tr>
<td>character</td>
<td>façades</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Google Earth
Observing the City

A Search for the Urban Ballet Along Madison Road

“Order [of the street] is all composed of movement and change, and although it is life, not art, we may... liken it to a dance...an intricate ballet in which the individual dancers and ensembles all have distinctive parts which miraculously reinforce each other and compose an orderly whole. The ballet of the good city sidewalk never repeats itself from place to place, and in any once place is always replete with new improvisations.”

-Jane Jacobs, *The Death and Life of Great American Cities*
Observing the City

The Significance of Signage

There are a variety of ways in which one can study the signage of the Madison Avenue Corridor. I focus on the content of the signs, which requires taking into account shape, font, color, viewing speed, and language as well.

The content of signage may be categorized as instructional, commercial, or locational. These traits may also overlap, or they may be manifest in combination, creating categories of instructional-locational, instructional-commercial, and commercial-locational.

Unofficial signs are handmade, use little or no color, and language that is much less formal. They may fit into multiple categories, or no categories.

The use of symbols and terse language insures that the driver will be able to comprehend the sign's meaning and to act accordingly in time to protect all of those involved.

The content of signage may be categorized as instructional, commercial, or locational. These traits may also overlap, or they may be manifest in combination, creating categories of instructional-locational, instructional-commercial, and commercial-locational.
Observing the City

Dwelling on Millworks:
The Phenomenology of Place

Christian Norberg-Schulz
Genius Loci Theory
A genius loci is a place where one can orient and identify with their surroundings, and ultimately dwell.

The Millworks site is located along the Madison Road Corridor, just northeast of Oakley Square. Its boundaries are I-71 to the north and railroad tracks to the south.

Observing: Big Box

The expansive parking lots and limited shade do not complement the natural landscape of the Cincinnati region. Instead these make hot summer days hotter and increase run-off on rainy ones. The architecture is not regional nor has any orientation to the sun, in fact no windows exist on the structures.

Observing: Crossroads

Crossroads comes a bit closer to being a genius loci. It is an adaptive reuse project which allows the history, although fairly recent, to remain as a memory within the space. It has skylights, connecting users to the outdoor environment when they are indoors. However, certain elements, such as the parking lot detract from the character.

Observing: Industry

The industrial site shows the potential for being a genius loci. Historical and stylistic buildings create a character specific to its local industrial past. A large building, bounding the site to the east, has a sawtooth roof, orienting the space to the “cosmic order” or nature. Greenspace surrounds the buildings, unlike the pavement of the other two sites.
The 4 parks studied along the Madison corridor have varied characteristics that make them viable for each of their locations.

Usage is highly determinate on the surrounding area. Higher amounts of pedestrian and cyclist traffic are located in close proximity to residential units. Duration of utility is also dependent on park characteristics.

The circulation patterns follow designated paths and often remain on the exterior of the greenspace. Greenspace functions most commonly visually.
Observing the City

Social Response to Environment: Space Morphology Studies

- billboards take precedence in one's view of the corridor; a main sound heard is construction; thin sidewalks too close to a wide road creates a feeling of insecurity

- low sparse buildings make street front seem bare; not very pedestrian friendly

- fairly good variety of uses spread along the corridor

- the corridor is extremely automobile oriented

- does NOT support 24-hr activity.
Observing the City

“Third Places” on Madison Road
My goal was to find “Third Places” along Madison Rd. I used the Rohs Street cafe as a reference and graded each place according to Ray Oldenburg’s criteria.

In contrast to first places (home) and second places (work), third places allow people to put aside their concerns and enjoy the people & conversation around them. “What suburbia cries for are the means for people to gather easily, inexpensively, regularly, and pleasurably -- a ‘place on the corner;’ real life alternatives to television, easy escapes from the cabin fever of marriage and family life that do not necessitate getting into an automobile.”

Ray Oldenburg, “The Great Good Place”

Everyone can contribute
Temper is spirited
Attended by laughter

Can arrive without plan
Expect to run into friends
Like Cheers

Close, can access frequently
Free or inexpensive
Has long hours

Not guarded like your home
Do not have to play host
Come and go as you please

Physical structure plain
Not advertised
Don’t seek out passerby

Abolition of rank
No membership necessary
Hierarchy based on convos

More homelike than home
Regenerated there
Warmth

Impromptu playground
Stay longer than expected
“Let’s do this again”
Observing the City

Subjunctive Junctions in the City: Vital Roles of Corner Lots in the Madison-MLK Corridor

Main Objective
To assess the value and importance that corner lots serve throughout corridor

Observational Mental Process

Theory
Junctions that exhibit an equilibrial contrast of materials and plane, and a commonality among its corner lots provide a sense of security and emerge as quintessential points of convergence in the corridor.

Themes of Junctions
Great Streets and Gateways

Observing the City

Environment and Behavior

"...The architectural policing of social boundaries has become a zeitgeist of urban restructuring."

-Mike Davis

Delineation of Public and Private Spaces

Policing Devices

Use of Green Space

Use of Public Space

Method of Observation

Perceived Boundaries

Hyde Park

Madisonville

Oakley

Security Cameras

Police Presence

No Trespassing

No Loud Music

No Sitting on Stairs

Security Businesses

Landscaping

Walls/Hedges

Cornerstones

Explicit

Implicit

Programmed

Unprogrammed
Close-Up: Observing the Urban Environment

Grady Clay’s Wordgame

“Fuzzy language leads to fuzzy thoughts. The so-called ‘urban dialogue’ of our time is not only dull but often hysterical. Its language is an awkward mixture of elitist architectural terms, of radical shitslinging, and of the manipulative lingo of evangelistic bureaucrats. You can read for pages or listen for hours, and have no contact with the hard facts of a living environment.”

Clay uses words and phrases that “conjure up a vivid mental image” of the phenomena that they represent, such as breaks, fronts, turf, sinks, fixes, strips, and beats.

Turf

“Turf is landscape spelled out; it says who goes where, who belongs, and who does not; it is admonitory and administered.”

Breaks

“Breaks form psychological, as well as geographic, barriers; they set up relationships that confuse, so that territory on the other side seems strange and unreliable.”

Fronts

“While debates may continue about how to identify and make legible the city and its edges, these will seem trivial in comparison with the larger forces at work and the problems to be solved on these fronts...What is today’s frontier? Does it, or can it, have any territorial or geographical identity?”

Turfing elements tend to appear benign until they are graphically enumerated. The University of Cincinnati case is particularly extreme—signs dot the broad lawn, with Crosley Tower acting as a “fortress” in the distance especially when compared with Burnet Woods across the street.

Breaks

Negative breaks disrupt the urban continuity—they form voids in the urban fabric that do little to promote vitality. Where I-71 passes under the Corridor, surface parking lots proliferate and there is little pedestrian activity.

Positive breaks can focus or channel energy into a specific area, as in the Grandin business district. Here, the winding road intersects a more rectilinear street grid and commercial development is contained within the breaks.

Fronts

Fronts are urban areas where old uses are gradually being usurped by new ones. In the DeSales’ Corner district of the Corridor, small-scale residential and business zones are being replaced by larger office complexes and retail developments (see aerial maps at left). Even transportation infrastructure is being augmented to support the new uses.

The front is best illustrated by the building example at right. In this case, recent development has been built around and completely surrounded a turn-of-the-century one.
Observing the City

Recognizing Churches as Urban Artifacts

The former Oakley Baptist Church at 3066 Madison Rd. demonstrates characteristics of an urban artifact as described by Aldo Rossi by the association of its form as a church and the propelling permanence of that form through the transformation of its function.

The artifact possesses a unique and cherished history, geography, structure, and urban connection that are independent from its function. It evokes a collective memory of experiences, impressions, and associations that add to the richness of its history and the quality of its space.

The future office/retail units that will occupy this space will always bear the permanences of Oakley Baptist Church.

Crossroads at 3500 Madison Rd. does not demonstrate characteristics of an urban artifact because the form does not possess any historical or social significance. Were the function to change, the form would not be able to retain the collective memory of the experiences and associations that add to the richness of its history and the quality of its space.

Crossroads is more representative of a “Christian warehouse” than a church in form, and therefore could be transformed in nature into a radically new being.
Great Streets' "Leftovers"

What are leftovers? Leftovers are places that are in between, under, and around streets, but are not streets. They are in the right-of-way but not paved for transportation uses.

Objective:
To investigate and describe the uses and features of leftover spaces in Cincinnati.

Where are the leftovers in Cincinnati?

How much space is leftover?

There are nearly 2 million square feet of leftover space in the study area shown at far left. That's an area approximately equal to 10 football fields.

360,000 square feet at one location

What are these spaces like? How can we characterize them?

Accessibility

Sidewalk

Badlands

Some areas are easily accessible; others are impenetrable.

Scale

Temple

These spaces are often not scaled to human dimensions, with heights ranging from mid-chest to two stories. They are sometimes forbidding in their forms, and other times, oddly majestic.

Not surprisingly, people are rarely, if ever, found in these places.

Contents

Steel and concrete

Official "signs" and guerilla plants

Animal habitat

Human habitat

Extent of shelter

Open air median

Shade (at Sawyer Point)

Roof (for a home)

What can be done with leftovers?

Make a stew?

Feed them to the dogs?

Let them rot and throw them out?...

These areas are filled to the brim with the sounds of our transportation infrastructure: creaking and moaning concrete and steel, roaring of vehicles through the wind, thuds and thump of wheels on road bumps, occasional horns. The only sounds that can be heard in these places are the sounds of transportation.
Niehoff Studio
Niehoff Urban Studio
Coffee Houses and Technology
A study of the vitality of the modern, American coffee house
Madison/MLK Corridor

Technology Use by Location

The sizes of the red icons show a qualitative representation of the number of instances of technology use observed within a given establishment. Six coffee shop locations were chosen based upon their adherence to the stereotypical "good third place" characteristics that they displayed. Generally, the more distant from the University of Cincinnati the location was, the lower the volume of technology use was experienced.

Subject/Environment Integration by Location

The sizes of the blue icons show a qualitative representation of the level of integration experienced at each location. The level of integration was determined by the liveliness of the conversations that were taking place at each location as well as the number of interactions observed between customers and the environment. A general scale was developed in which 1 point was awarded for looking at other people/objects in the environment for 3+ seconds, 5 points was awarded for talking with others for < 3 seconds (some kind of greeting or passing exchange) and 15 points was awarded for having a conversation with a person (defined as a dialogue of at least 4 exchanges between subjects).

In a comparison of location in each coffee house to the number of instances of technology use, it was found that there was a correlation between proximity to the front of an establishment and the likelihood of technology being used in a given location. Seats that were closer to the front experienced less technology use, while areas in the middle and back experienced increased use. In addition to this, seats that allowed the customer to see the entrance or windows in an establishment were more likely to possess technology. This is likely due to a yearning for an escape from one's technology and to indulge in the environment.

Instances of Technology Use

Observable Differences between Best and Worst Integration Environments Respectively

Child Friendly Third Place - Requires Attention and Involvement
- Pictures of animals recognizable childhood icons
- Chalk board and play area design
- Children’s books and play material
- Dream-Like Illustration

Grown Up Environment - Escape from First Places with a Sophisticated Atmosphere
- Customer-designed artwork: sense of belonging
- Bland, museum-like feeling
- Newspapers, relatively unused due to the convenience of internet based news
- Contemporary artwork and room design
Graffiti as Urban Communication

Does the type or amount of graffiti change as one moves through Cincinnati? To answer this question, Vine Street was investigated, encompassing 3.5 miles from its origin near the river through downtown, Over the Rhine, and Clifton, finishing at Beldare Avenue. Instances of graffiti were observed and documented from a pedestrian viewpoint along one side of the street. Graffiti visible from across the street was also included.

Graffiti was found on many surfaces, including walls, public restrooms, trash cans, street signs, phone booths, and even vehicles. Various mediums included spray paint, marker, chalk, charcoal, and etchings on painted surfaces or wood.

A wide variety of graffiti was found, including drawings, stencils, nicknames, symbols, codes, and memorials. Designs could be monotone and simple through large and multi-color. Messages could seemingly be directed (i.e., "Stop it right now"), territorial in nature, or ambiguous in meaning.

It was seen that graffiti does change as one moves through a space. Both the number of graffiti and the size of it appeared to follow a trend of a curve with a peak in Over the Rhine. Relatively few large, colorful graffiti were found, however some plain large graffiti was occasionally present.

Communication theory by Watzlawick et al. (1967) suggests that "activity or inactivity, words or silence all have message value: they influence others and these others, in turn, cannot not respond to these communications."

From this perspective, communication through urban graffiti is continually occurring in Cincinnati between both willing and unwilling participants.