

# HANDY TOWNSHIP, MICHIGAN

## DEVELOPMENT STANDARDS

### Table of Contents

#### Handy Township General Information

<b>1.00</b>	<b>General Requirements.....</b>	<b>1-1</b>
1.1	Introduction.....	1-1
1.2	Interpretation.....	1-1
1.3	Definitions .....	1-2
1.4	Submittal Procedure.....	1-2
1.5	Plans and Specifications .....	1-4
1.6	Construction.....	1-5
1.7	Drain Concerns .....	1-7
1.8	Traffic Control and Detours.....	1-7
1.9	Plan Review Fees.....	1-7
1.10	Additional Fees, Charges, and Assessments.....	1-7
1.11	Insurance.....	1-8
1.12	Pre-Construction Meeting.....	1-9
1.13	“As-Built” Drawings – Procedures and Requirements.....	1-9
1.14	Miscellaneous Private Improvements.....	1-11
1.15	Public / Private Water and Wastewater Facilities.....	1-12
<b>2.00</b>	<b>Site Development Guidelines .....</b>	<b>2-1</b>
2.1	Regulations .....	2-1
2.2	Environmental Performance Standards .....	2-1
2.2.1	Stormwater Management.....	2-1
2.2.2	Municipal Water and Sanitary Sewer Use.....	2-2
2.2.3	Incineration Prohibited .....	2-2
2.2.4	Vibration.....	2-2
2.2.5	Airborne Emissions .....	2-2
2.2.6	Noise.....	2-3
2.2.7	Glare .....	2-4
2.2.8	Lighting .....	2-4
2.2.9	Hazardous Materials .....	2-5
2.3	Site Design Guidelines.....	2-6
2.3.1	General Standards.....	2-6
2.3.2	Non-Residential Design Standards .....	2-6
2.3.3	Site Organization and Design .....	2-6
2.3.4	Open Space / Clustering .....	2-9
2.3.5	Building Architecture and Design .....	2-10
2.3.6	Parking and Circulation .....	2-11
2.3.7	Landscaping.....	2-12
<b>3.00</b>	<b>Sanitary Sewers.....</b>	<b>3-1</b>
3.1	Sewer Design .....	3-1
3.2	Materials .....	3-3
3.3	Infiltration.....	3-4

3.4	Inverted Siphons .....	3-4
3.5	Pump Stations .....	3-4
3.6	Building Sewers.....	3-5
<b>4.00</b>	<b>Water Mains .....</b>	<b>4-1</b>
4.1	Water Main Design.....	4-1
4.2	Materials .....	4-3
<b>5.00</b>	<b>Storm Sewers and Detention / Retention Basins .....</b>	<b>5-1</b>
5.1	General .....	5-1
5.2	Storm Sewer Design Criteria .....	5-1
5.3	Materials .....	5-4
5.4	Storm Water Detention / Retention Basins Design Criteria .....	5-5
5.5	Detention and Retention Basin Maintenance.....	5-7
<b>6.00</b>	<b>Grading, Landscaping, Soil Erosion and Sediment Control.....</b>	<b>6-1</b>
6.1	Design Standards .....	6-1
6.2	Retaining Walls and Landscape Walls .....	6-1
6.3	Site Grading.....	6-2
6.4	Grading Requirements for Subdivisions, Site Condominiums, and PUD's .....	6-3
6.5	Grading Requirements: Multi-Family, Commercial, Office, and Industrial.....	6-4
<b>7.00</b>	<b>Streets, Driveways, Safety Paths and Paving .....</b>	<b>7-1</b>
7.1	Design Principles .....	7-1
7.2	Design Standards .....	7-1
<b>8.00</b>	<b>Construction Specifications (Public and Private Improvements) .....</b>	<b>8-1</b>
8.1	General Requirements .....	8-1
8.2	Water Main Construction .....	8-2
8.3	Open Cut Sewers .....	8-8
8.4	Specifications for Open Cut Trenching within Public Rights of Way.....	8-16
8.5	Specifications Pertaining to Excavation and Backfill.....	8-18

**Standard Details**

Water

Standard Fire Hydrant.....	W-1
Standard Valve and Box .....	W-2
Water Main Service Connection.....	W-3
Water Main Relocation.....	W-4
Pipe Restraint Schedule .....	W-5
Materials .....	W-6
Mueller/McCullough Meter Box .....	W-7
Water Main Trench Detail .....	W-8

General

General Construction Notes.....	G-1
---------------------------------	-----

Sanitary

Sanitary Manhole.....S-1  
Sanitary Service/Riser Connection .....S-2  
Trench Detail .....S-3  
Concrete Encase Detail.....S-4  
Casing Installation for Roads.....S-5  
Block / Precast Conc. Manhole .....S-6

Storm

Conc. Cradle for Storm Sewer..... R-1  
Conc. Catch Basin Detail..... R-2  
Edge Drain Plan View Detail..... R-3  
Conc. Encasement Detail..... R-4  
Edge Drain Detail ..... R-5  
Edge Drain Connection..... R-6  
Slot Drain Detail ..... R-7

Pavement

Mountable Curb Section .....P-1  
Typical MDOT C4 Barrier Curb .....P-2  
Township Pavement Section.....P-3  
Unstable Subbase Repair Detail .....P-4  
Concrete Structure Collar .....P-5  
Bituminous Structure Collar .....P-6