

Village of Archbold

Fulton County, Ohio

Stormwater Regulations

Adopted March 20, 2023

Table of Contents

SECTION 1 <i>General Provisions</i>	3
Purpose	3
Exemptions.....	3
Design Standards	4
SECTION 2 <i>Runoff Estimation</i>	6
Coefficient of Imperviousness	6
Rainfall Intensity (“i”)	7
SECTION 3 <i>General Storm Sewer Design</i>	9
SECTION 4 <i>Stormwater Detention & Retention Facilities</i>	10
SECTION 5 <i>Sedimentation & Erosion Controls</i>	12
SECTION 6 <i>Green Infrastructure & Low-Impact Development</i>	12
ATTACHMENT 1	13
Storm Sewer Computation Sheet.....	13
ATTACHMENT 2	15
Stormwater Detention Calculation Worksheet.....	15

SECTION 1 | *General Provisions*

Purpose

Effective March 20, 2023, all site plans and subdivisions for new development and re-development of existing sites within the Village of Archbold shall be required to provide stormwater management as defined within these Stormwater Regulations. These Regulations shall establish the minimum requirements for stormwater management using Best Management Practices (BMPs) to minimize the impact on local waterways and reduce localized flooding due to stormwater runoff caused by earth disturbing activities, subsurface drainage, and land use changes connected with land development and changes in impervious area.

These Regulations are intended to:

- 1** Reduce flooding, erosion, and sedimentation damages caused by land disturbance and development;
- 2** Reduce damage to receiving streams, storm sewers or channels caused by increased runoff or pollutant loading of the water being discharged due to development or that may be caused by illicit discharges; and
- 3** Establish the systematic submittal of plans and designs for implementation of appropriate construction and post-construction BMPs through preconstruction stormwater management plan reviews, site inspections, and penalties for non-compliance with these Regulations and related state and federal permits.

Exemptions

These Stormwater Regulations **do not** apply to:

- 1** Land disturbing activities related to producing agricultural crops or silviculture operations regulated by the Ohio Administrative Code (OAC) Agricultural Sediment Pollution Abatement Rules (OAC 1501: 15-3-01 to 1501: 15-3-09) and existing at the time of passage of this Regulation.
- 2** Mining operations regulated by Ohio Revised Code (ORC) Chapter 1513 and existing at the time of passage of this Regulation.
- 3** Surface mining operations regulated by ORC Chapter 1514 and existing at the time of passage of these Regulations.
- 4** Construction or development activities that do not include the

installation of any impervious surface (e.g. – sports fields), abandoned mine reclamation activities regulated by the Ohio Department of Natural Resources, stream and wetland restoration activities, and wetland mitigation activities.

Design Standards

These design standards and specifications shall serve as the minimum requirements for the design, storage, and management of stormwater drainage for all new and re-developed sites within the Village of Archbold. These procedures and regulations shall govern the development of all new and/or modified stormwater drainage systems. The development of such drainage systems shall include the conveyance of surface water to an adequate outlet capable of carrying the proposed flow. All proposed improvements shall be constructed in accordance with the Village of Archbold Subdivision Regulations and local construction standards. All proposed improvements are subject to review, approval, and/or alteration by the Village Engineer prior to the construction of any portion of the planned development, re-development or site plan and its drainage system.

The current list of standards to be used in the design of stormwater drainage is as follows:

- 1** Subdivision Regulations and Local Construction Standards of the Village of Archbold, Ohio.
- 2** Standard Construction Drawings and Construction and Material Specifications (CMS) of the Ohio Department of Transportation (ODOT) (current editions).
- 3** Rain Water and Land Development Manual of the Ohio Department of Natural Resources (current edition).
- 4** All applicable State and Federal Regulations, including (but not limited to) Ohio EPA NPDES General Permit for Construction Activities, Sections 401 and 404 of the Clean Water Act (CWA) and Ohio DNR Dam Safety Program.

When planning a new development or re-development of a site or subdivision, various drainage concepts should be evaluated in consultation with the Village Engineering Department before decisions are made as to site layout, grading, street, and utility location and alignments. Plans should be based upon incorporating existing natural waterways, artificial channels, storm sewers, and other drainage works into the proposed improvements. The location of required catch basins, manholes, storm sewer conduits, drainage channels, and construction/post-construction best management practices (BMPs) shall be approved by the Village Engineer.

The drainage design within a development shall be adequate to convey and manage the entire contributing watershed area, along with its existing, proposed or probable future development. If the development is to be completed in phases, the overall drainage plan shall be submitted with the first set of detailed construction drawings and the storm outlet for the entire development shall be included for construction within the first phase.

A study of the drainage pattern of areas contiguous to the proposed development shall be completed. Stormwater drainage design should begin with the designer verifying with the Village Engineering Department the limits of the drainage basin (watershed) in which the proposed improvement project is located and the location of the nearest adequate outlet. Provisions shall be made to accommodate runoff from upstream areas without diversion onto neighboring properties. Tributary flows having a direct effect on the storm drainage of the proposed site shall be determined and included in the design capacities of the storm drainage system of the development. A map showing the drainage patterns of the surrounding basin shall be submitted with the drainage system plans. A USGS topographical map may be sufficient for this submittal.

No existing watercourse shall be altered in any way to change the direction or the amount of flow. Fill or structures shall not be placed or situated in any natural watercourse unless provisions are made for the existing free flow of water in a manner approved by the Village Engineer. Changing the drainage from one watershed to another watershed without the approval of the Village Engineer is strictly prohibited.

The regulations of the Federal Emergency Management Agency (FEMA) shall be strictly followed for all developments. Impacts on floodway and floodway fringes shall be analyzed and accounted for. Filling in a floodplain requires a permit granted by the Village Engineer and Planning Commission. The 100-year flood boundary shall be shown on all stormwater drainage plans and subdivision plats along with the 100-year flood elevations, if known. All necessary Conditional Letters of Map Revision (CLOMR), Letters of Map Revision (LOMR), or Letters of Map Amendment (LOMA), shall be submitted and approved by FEMA prior to the construction of any habitable structure within a development.

The Village Engineer shall require that all design calculations, plans, quantities, and an itemized cost estimate for the stormwater drainage system be prepared and stamped by a Registered Professional Engineer and submitted to the Village Engineer for review and concurrence.

SECTION 2 | *Runoff Estimation*

The design of storm drainage systems for areas less than 200 acres within the Village of Archbold shall be based upon the "Rational Method" ($Q=CiA$) for determining peak runoff flow-rates, where:

Q	=	Peak runoff rate in cubic feet per second (cfs).
C	=	Coefficient of runoff corresponding to surface imperviousness (See Table 1).
i	=	Average rainfall intensity in inches per hour corresponding to the storm design frequency and for a duration equal to the time of concentration (See Table 2).
A	=	Area in acres of the contributing watershed/design area.

The initial time of concentration (T_c) to a pick-up point in the system shall not be less than 15 minutes.

Where development areas (A) are greater than 200 acres, the designer shall use the Soil Conservation Service Technical Release No. 55 (TR-55) (current edition).

Coefficient of Imperviousness

The runoff coefficients for calculations shall reflect the anticipated land use according to the existing or proposed zoning of the planned improvement site in conjunction with the proposed improvements.

Table 1 lists coefficients for various types of proposed development and surfaces that may be used to develop a composite runoff coefficient based on the percentage of different surfaces within the drainage area of a development. All permitted single, two-family and three-family residential developments and subdivisions with zoning classifications of R-2, R-3, and A-1 shall utilize the defined weighted runoff coefficients for residential zoning (C_{WR}) presented in **Table 1**. All other multi-family, commercial, industrial, and institutional sites and subdivisions shall require a breakdown of all acreage by land use for development of a project-specific weighted coefficient (C_w). These coefficients are consistent and applicable to all drainage improvements in Village of Archbold.

TABLE 1 – Design Runoff Coefficients

Zoning Classification	Design "C_{WR}"
R-2	0.40
R-3	0.50
A-1	0.35
All Other Uses	
Proposed Surface Material	Runoff Coefficient "C"
Pavements, Drives, Sidewalks & Pathways (Asphalt, Concrete or Compacted Stone)	0.90
Roofs	0.90
Ponds & Stormwater Retention Areas	0.90
Uncompacted Stone	0.70
Lawn Areas	0.15
Agricultural	0.20
Natural & Constructed Wetlands	0.10

Rainfall Intensity ("i")

The rainfall intensity, "i", for the Rational Method Calculation shall be determined based upon the Rainfall Intensity-Duration-Frequency (IDF) curves and constants defined within the Ohio Department of Transportation (ODOT) *Location & Design Manual, Volume 2 – Drainage Design for Intensity Zone B*.

Table 3 below is derived from the equation $i = a / ((T_c + b)^c)$, utilizing the time (T) in minutes and the constants provided within Vol. 2 of the ODOT L&D Manual shown here:

TABLE 2 – Rainfall Intensity Constants

Return Frequency	A	B	C
2	47.987	9.000	0.859
5	60.684	10.500	0.858
10	73.126	12.000	0.863
25	75.841	12.000	0.833
50	65.621	10.000	0.781
100	58.047	13.250	0.806

TABLE 3 – Calculated Rainfall Intensities

Time of Concentration (Tc)	Return Frequency (Years)					
	2	5	10	25	50	100
10-min	3.83	4.55	5.08	5.78	6.32	6.73
15-min	3.13	3.77	4.25	4.87	5.31	5.76
20-min	2.66	3.23	3.67	4.23	4.61	3.45
25-min	2.32	2.84	3.24	3.75	4.08	3.08
30-min	2.06	2.53	2.91	3.37	3.68	2.79
45-min	1.56	1.93	2.23	2.61	2.87	2.19
1-hour	1.26	1.58	1.82	2.15	2.38	1.82
75-min	1.07	1.33	1.55	1.84	2.04	1.57
90-min	0.93	1.16	1.35	1.61	1.80	1.38
2-hour	0.74	0.93	1.08	1.30	1.47	1.13
150-min	0.62	0.78	0.91	1.09	1.25	0.96
3-hour	0.53	0.67	0.78	0.95	1.09	0.83
4-hour	0.42	0.53	0.62	0.76	0.88	0.67
6-hour	0.30	0.38	0.44	0.55	0.65	0.49
12-hour	0.17	0.21	0.25	0.31	0.38	0.28
18-hour	0.13	0.16	0.19	0.24	0.30	0.22
24-hour	0.09	0.12	0.14	0.18	0.22	0.16

Additional rainfall intensities shall be calculated based upon the time of concentration (Tc) developed within the Storm Sewer Computation Sheet (See Attachment 1).

SECTION 3 | *General Storm Sewer Design*

Storm sewers shall be designed to flow just full for a 5-year storm event, based upon the Manning's Equation, where:

Q in cfs	=	$(1.486/n) * (A) * (R_h^{2/3}) * (S^{1/2})$, and;
N	=	Coefficient of roughness (assume 0.013 for all types of pipe).
A	=	Pipe end area in square feet (SF), based upon nominal pipe size.
R_h	=	Hydraulic radius in feet (FT) = Area / Wetted Perimeter.
S	=	Pipe slope in Ft. / Ft.

The Hydraulic Grade Line (HGL) for each segment of storm sewer shall be checked to confirm the 10-year storm shall be maintained below the ground surface. The minimum velocity within a storm sewer shall be 2 feet per second (fps). Storm sewers shall be designed using the Storm Sewer Computation Sheet as provided in **Attachment 1**, or another form as accepted by the Village Engineer.

When the design makes use of an existing storm sewer or an open watercourse, profiles, and cross sections shall be submitted to represent existing conditions at least 500 feet upstream and 500 feet downstream from the parcel or parcels being considered for development. The out letting sewer or watercourse for the development may need to be improved before development begins, as determined by the Village Engineer. If future development extensions will utilize the same drainage system, the overall drainage plan shall be submitted with the first phase of work and paving, grading, and drainage plans.

Where pipes outlet into an open watercourse, measures shall be taken to lessen potentially destructive velocities within the open channel. Erosion control devices such as stilling basins, riprap or revetments may be required. Storm sewers discharging into the State of Ohio drainage systems or crossing state highways must be approved and permitted by the Ohio Department of Transportation. Storm sewers discharging to Waters of the State shall be permitted through the Ohio EPA and US Army Corp of Engineers, as required.

All storm sewer conduits shall be a minimum of 12 inches in diameter, excluding metering devices, stormwater taps and service connections, and road/pavement underdrains. When changing pipe sizes in a manhole or a catch basin, the elevations of the crowns of the smaller upstream pipes shall be matched to the elevation of the crown of the larger downstream pipe to at least 80 percent, unless otherwise approved by the Village Engineer.

Storm sewer easements shall have a minimum width of 20 feet with the centerline of the easement being centered on the conduit. Variances from this requirement may be granted by the Village Engineer for special situations. Easements for all swales and open channels shall have a minimum width of 25 feet from and perpendicular to the top of the bank, plus, the width of the swale (top of bank to top of bank) with the centerline of the easement being centered on the swale.

Curb and gutter inlets shall be designed using the 5-year frequency storm with a 15-minute duration to the first catch basin. The maximum allowable width of the sheet gutter flow from the face of the curb shall be limited to 8 feet as measured from the face of curb. All intersections shall be graded to eliminate 100 percent of cross street flow. Curb inlets shall be located at the beginning of the upstream curb return before the crosswalk. Sufficient curb inlets shall be provided to prevent the 25-year storm event flows from overtopping the street R/W lines. The maximum spacing between curb inlets or from a vertical crest point shall be a maximum distance of 350 feet on curb and gutter streets and 450 feet on streets without curbs and gutters.

All catch basin connector pipes shall connect to the main storm sewer at manholes unless otherwise approved by the Village Engineer's Office. The connector pipes shall be a minimum of 12-inch diameter and placed at not less than 1.00 percent slope, unless otherwise approved by the Village Engineer. Manholes or catch basins shall be installed at all changes of size, grade, and horizontal alignments unless prior written approval is granted. All catch basins, curb inlets, and manholes shall be precast concrete and provided with rubber boot inserts for all pipe connections. All catch basins and curb inlets shall be constructed without sumps.

SECTION 4 | *Stormwater Detention & Retention Facilities*

All new residential, commercial, and industrial developments shall be required to provide on-site stormwater detention/retention basins. All existing commercial and industrial developments proposed for re-development/expansion and causing the creation of additional impervious area shall provide on-site stormwater detention/retention for such incremental increase in impervious area. Stormwater detention calculations shall be submitted on the Village of Archbold Stormwater Detention Calculation Worksheet provided in **Attachment 2**.

All surface stormwater generated by a newly proposed development must be collected and metered with the allowable discharge (Q allowable) being limited to and not to exceed a 2-year frequency storm for the undeveloped conditions of the proposed development site using an intensity time of $i = 15$ minutes and a pre-development runoff coefficient (C) of 0.20. The collection facilities shall be able to store or detain the proposed discharge from a 50-year frequency storm based upon a weighted runoff coefficient (C_w) as calculated on the Stormwater Detention Calculation Worksheet provided in **Attachment 2**.

All surface stormwater generated by the re-development/expansion of an existing site must be collected and metered with the allowable discharge (Q allowable) being limited to and not exceeding a 2-year frequency storm for the existing conditions prior to re-development of the proposed development site using an intensity time of $i = 15$ minutes and a weighted runoff coefficient " C " of calculated for the entire parcel. The collection facilities shall be able to store or detain the proposed discharge from a 50-year frequency storm for the planned re-developed site based upon a weighted runoff coefficient (C_w) as calculated on the Stormwater Detention Calculation Worksheet provided in **Attachment 2**.

Stormwater detention/retention requirements for re-development/expansion sites shall be required once the increased amount of impervious area ($C > 0.20$) exceeds 5,000 square feet, accomplished either through a single project or the accumulation of multiple projects completed after the adoption of these Regulations.

The detention/retention facility shall have a minimum 2 feet of freeboard above the design high water elevation of the facility. Detention and retention facilities shall be aesthetically pleasing in accordance with the Village of Archbold Planning Commission.

Dry detention basins with bottom widths greater than 40 feet shall have subsurface drainage at no more than 20-foot spacing to dry the basin after stormwater discharge. Dry detention basins shall have a bottom slope of 0.50 percent toward the flow control device.

The number of detention and retention basins within a single development shall not exceed 2 unless otherwise approved by the Village Engineer and shall be located on lands owned by the maintaining authority. When utilizing a parking area for detention facilities, the depth of water detained shall not exceed 6 inches unless otherwise approved by the Village Engineer.

The outside and inside slopes of detention/retention basins shall be 3:1 horizontal-to-vertical ratios, or flatter to ensure maintenance capability. The minimum top width of the embankment of a detention/retention basin shall be 15 feet to enable passage of mowers and other maintenance equipment. Wet/retention basins shall have a 6-foot minimum wide safety ledge around the perimeter, 2 feet below the normal water surface elevation.

SECTION 5 | *Sedimentation & Erosion Controls*

All proposed site development or re-development requiring disturbance of an area of 1 acre or more, inclusive of construction staging and laydown areas, shall be required to provide a Stormwater Pollution Prevention Plan (SWP3) in accordance with the Ohio EPA NPDES General Construction Permit, including all required construction and post-construction Best Management Practices (BMPs) and applicable notices to the Village of Archbold and Ohio EPA.

SECTION 6 | *Green Infrastructure & Low-Impact Development*

When considering stormwater solutions for new development or re-development of residential, commercial or industrial sites, the Village of Archbold strongly encourages the incorporation of Green Infrastructure (GI) and Low-Impact Development (LID). GI and LID employs principles, such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product.

GI and LID examples that can be utilized include, but not limited to:

- At-Grade Detention/Retention Basins
- Underground Detention Basins
- Bio-Swales/Grass Swales
- Naturalized Edge Areas (i.e. No Mow Areas)
- Pervious Pavements
- Shade Trees & Native Species Plantings
- Rain Barrels
- Rain Gardens
- Disconnected Impervious Surfaces (e.g. roof downspouts disconnected from storm sewer)

ATTACHMENT 1

**Storm Sewer Computation Sheet
(Document Available as MS Excel Workbook)**

	No.	1. MH CB or I
	STA	2. Station
	L/R	3. Side
	A	4. Drainage Area In Acres
	ΣA	
	Tc	5. Time of Concentration in Minutes
	ΣTc	
	I(5yr)	6. Rainfall in Inches/Hour
	I(10yr)	
	C	7. Runoff Coef.
	CA	8. Column 7 x Column 4
	ΣCA	
	Q _{5yr}	9. Discharge in cfs (Col. 6 x Col. 8)
	Q _{10yr}	
	In.	10. Size of Pipe in Inches
	Lf	11. Length of Pipe in Feet
	S _o	12. Slope of Pipe in Ft./Ft.
	Elev.	13. Inlet F/L of Pipe
	Elev.	14. Outlet F/L of Pipe
	V _m	15. Mean Velocity in Ft./Sec.
	cfs	16. Just Full Capacity (5-yr Q)
	Ft./Ft.	17. Friction/Slope in Ft./Ft.
	H (ft.)	18. Head Loss in Feet
	Elev.	19. Elevation of Hyd. Gradient (10-yr Q)
	Elev.	20. Grate or Cover Elev.
	Ft.	21. Cover Elev. minus 10-yr HGL (Col. 20 - Col. 19)

ATTACHMENT 2

**Stormwater Detention Calculation Worksheet
(Document Available as MS Excel Workbook)**

TABLE 1 – Design Runoff Coefficients

Zoning Classification	Design "C_{WR}"
R-2	0.40
R-3	0.50
A-1	0.35
All Other Uses	
Proposed Surface Material	Runoff Coefficient "C"
Pavements, Drives, Sidewalks & Pathways (Asphalt, Concrete or Compacted Stone)	0.90
Roofs	0.90
Ponds & Stormwater Retention Areas	0.90
Uncompacted Stone	0.70
Lawn Areas	0.15
Agricultural	0.20
Natural & Constructed Wetlands	0.10

VILLAGE OF ARCHBOLD
RAINFALL FREQUENCY-INTENSITY-DURATION TABLE

Rainfall Intensity (i) = $A/(t + B)^C$

TABLE 2 – Rainfall Intensity Constants

Return Frequency	A	B	C
2	47.987	9.000	0.859
5	60.684	10.500	0.858
10	73.126	12.000	0.863
25	75.841	12.000	0.833
50	65.621	10.000	0.781
100	85.047	13.250	0.806

(* - From Fig. 1101-2, ODOT L&D Manual Vol. 2, Intensity Zone B)

Time (min.)	Frequency (Years) / "i" (in./hour)					
	2	5	10	25	50	100
10.00	3.83	4.55	5.08	5.78	6.32	6.73
11.00	3.66	4.36	4.89	5.57	6.09	6.51
12.00	3.51	4.20	4.71	5.37	5.87	6.30
13.00	3.37	4.04	4.55	5.19	5.67	6.11
14.00	3.25	3.90	4.39	5.03	5.48	5.93
15.00	3.13	3.77	4.25	4.87	5.31	5.76
16.00	3.02	3.65	4.12	4.73	5.15	5.60
17.00	2.92	3.53	4.00	4.59	5.00	5.45
18.00	2.83	3.43	3.88	4.46	4.86	5.31
19.00	2.74	3.33	3.78	4.34	4.73	5.17
20.00	2.66	3.23	3.67	4.23	4.61	5.05
21.00	2.58	3.14	3.58	4.12	4.49	4.93
22.00	2.51	3.06	3.49	4.02	4.38	4.82
23.00	2.44	2.98	3.40	3.92	4.28	4.71
24.00	2.38	2.91	3.32	3.83	4.18	4.61
25.00	2.32	2.84	3.24	3.75	4.08	4.51
26.00	2.26	2.77	3.17	3.66	4.00	4.42
27.00	2.21	2.71	3.10	3.59	3.91	4.33
28.00	2.16	2.65	3.03	3.51	3.83	4.24
29.00	2.11	2.59	2.97	3.44	3.75	4.16
30.00	2.06	2.53	2.91	3.37	3.68	4.08
35.00	1.86	2.29	2.64	3.07	3.36	3.74
40.00	1.70	2.10	2.42	2.82	3.09	3.45
45.00	1.56	1.93	2.23	2.61	2.87	3.21
50.00	1.45	1.80	2.08	2.44	2.68	3.01
60.00	1.26	1.58	1.82	2.15	2.38	2.67
70.00	1.12	1.41	1.63	1.93	2.14	2.41
80.00	1.02	1.27	1.48	1.75	1.95	2.20
90.00	0.93	1.16	1.35	1.61	1.80	2.03
100.00	0.85	1.07	1.25	1.49	1.67	1.88
110.00	0.79	0.99	1.16	1.39	1.56	1.76
120.00	0.74	0.93	1.08	1.30	1.47	1.65
130.00	0.69	0.87	1.02	1.22	1.38	1.56
140.00	0.65	0.82	0.96	1.15	1.31	1.47
150.00	0.62	0.78	0.91	1.09	1.25	1.40

VILLAGE OF ARCHBOLD
STORMWATER DETENTION DESIGN
2-Year Pre/50-Year Post Storm Method

LOT AREA (SQ. FT.)		Notes:	0.00 AC
PAVMT AREA (SQ. FT.)		WT. C = Cw =	#### - perv = 0.20
WET POND AREA (SQ. FT.)			- imperv = 0.90
BUILDING AREA (SQ. FT.)		ALLOW C =	0.2 - Village defined
TOTAL IMPERVIOUS (SQ. FT.)	-	ALLOW I =	3.13 - 2yr, 15 min
NET PERVIOUS (SQ. FT.)	-	Q ALLOW (cfs)	0.00

DETENTION VOLUME CALCULATION

tc (min)	i50 in./hr.	CwA (A=Ac)	Qin Q50	Qout= Qallow	Qin-Qout	xtcx60 (cu. ft.)	xtcx60 (ac. ft.)
10.00	6.32	0.00	0.00	0.00	0.00	-	-
15.00	5.31	0.00	0.00	0.00	0.00	-	-
20.00	4.61	0.00	0.00	0.00	0.00	-	-
30.00	3.68	0.00	0.00	0.00	0.00	-	-
40.00	3.09	0.00	0.00	0.00	0.00	-	-
50.00	2.68	0.00	0.00	0.00	0.00	-	-
60.00	2.38	0.00	0.00	0.00	0.00	-	-
70.00	2.14	0.00	0.00	0.00	0.00	-	-
80.00	1.95	0.00	0.00	0.00	0.00	-	-
90.00	1.80	0.00	0.00	0.00	0.00	-	-
100.00	1.67	0.00	0.00	0.00	0.00	-	-
110.00	1.56	0.00	0.00	0.00	0.00	-	-
120.00	1.47	0.00	0.00	0.00	0.00	-	-
130.00	1.38	0.00	0.00	0.00	0.00	-	-
140.00	1.31	0.00	0.00	0.00	0.00	-	-
150.00	1.25	0.00	0.00	0.00	0.00	-	-