

Section 20.00 – Preamble

The Railroad Freight Yard (RFY) District is intended to permit only the construction of a railroad freight yard to serve major industrial facilities in the Township. Such a district shall be located as near as possible to the industrial properties it is to serve. It is further intended that this district have direct access onto a major thoroughfare having an existing or proposed right-of-way of at least one hundred twenty (120) feet.

Section 20.01 – Special Land Uses

The following uses shall be permitted as special land uses in the Railroad Freight Yard (RFY) District, subject to the standards and requirements set forth herein and subject to the standards and approval requirements as provided for in Section 30.02:

- A. Rail freight yard and facilities, including rail car storage, marshalling, switching or transfer facilities and appurtenances which shall provide for the needs of adjacent industrial facilities.

Section 20.02 – Accessory Special Land Uses

The following accessory uses shall be permitted as special land uses in the Railroad Freight Yard (RFY) District, subject to the standards and requirements set forth herein and subject to the standards and approval requirements as provided for in Sections 30.02 and 27.02:

- A. Facilities for fueling, washing, inspecting and light maintenance, and repair work on rail freight yards.
- B. An office building not to exceed thirty (30) feet in height and six thousand (6,000) square feet in total floor area.
- C. Normal auxiliary uses customarily incidental to the principal use including tool and equipment storage buildings, crew quarters, radio communication building and facilities, transmission towers not exceeding one hundred (100) feet in height.

Section 20.03 – Uses Not Permitted

The following uses shall not be permitted in the RFY District:

- A. Uses other than those specifically permitted by Sections 20.01 and 20.02.
- B. Facilities for the warehousing, storage, or shipping of products, sub-assemblies, raw materials, or personal and household items.

Section 20.04 – Required Conditions

All activities and uses in this District shall comply with the following required conditions, except where an existing building is legally in nonconformance with certain conditions, or where a variance from the conditions has been legally granted by the Zoning Board of Appeals. *(amended 01.30.86)*

- A. Site Plan Approval. The proprietor shall submit a site plan for approval pursuant to the requirements set forth in Section 30.01 of the Zoning Ordinance.
- B. Outside Storage.
 - 1. The outside storage of materials, supplies, vehicles, equipment, or similar items is allowed only when such storage is specifically shown on the site plan as approved by the Planning Commission.

2. The storage or warehousing of products, except those directly related to the servicing of railroad facilities, is prohibited.
3. Outside storage shall be limited to the rear yard area.
4. Outside storage areas shall be completely fenced with a chain link fence at least eight (8) feet high.
5. Outside storage areas shall be screened from view from all roadways. This screening shall be either opaque screening or evergreen landscape screening in accordance with the provisions set forth in Section 27.05.
6. All fuels or flammable liquids necessary for the operation of the railroad freight yard shall be stored underground and maintained in strict compliance with all applicable Federal and State laws and local ordinances.

C. Minimum Parcel Size.

1. The minimum parcel size shall be forty (40) acres.

D. Off-Street Parking.

1. One (1) parking space for each two employees, plus five (5) parking spaces for visitors, shall be provided on the same lot.
2. The Planning Commission may, at their discretion, modify the numerical requirements for off-street parking, based on evidence provided by the applicant that indicates that another standard would be more reasonable, because of the level of current or future employment and/or the level of current or future customer traffic. *(amended 01.30.86)*
3. Driveways and parking areas may be curbed and shall consist of hard-surfaced concrete, blacktop, crushed concrete or gravel, as approved by the Planning Commission.
4. All off-street parking shall conform to the standards set forth in Section 27.04 of this Ordinance.
5. The required setback for parking may be reduced in width or waived by the Planning Commission when the parcel abuts commercial/office, or industrial zoned property, and when existing off-street parking, drives, and/or structures are located within the setback area. *(amended 09.16.93)*

E. Landscaping.

1. A landscape plan shall be submitted to the Planning Commission for approval. The landscape plan shall specify plant materials and landscape treatment, based on the requirements of Section 27.05 of this Ordinance for such items. This landscape plan shall be part of, or accompany, the site plan.
2. A twenty (20) foot wide greenbelt area shall be provided within the required one hundred fifty (150) foot front, rear, and side yard setbacks.
3. Except where necessary to afford access thereto, railroad freight yards shall be screened by means of a topographic variation of at least twenty-five (25) feet between the elevation of the adjacent property and the elevation of the tops of rails in the yard. This variation of twenty-five (25) feet may be obtained by:
 - a. The use of earth berms, or
 - b. The depression of the rails in the yard area to the necessary depth, or
 - c. A combination of earth berms and depression of the yard area.

Said topographic variation may be within the required one hundred fifty (150) foot setback and may be coordinated with and be a part of the required twenty (20) foot greenbelt. However, said topographic variation must also be located where it most effectively screens all adjacent properties from the view and noise of the rail facilities. Any buildings erected in the railroad freight yard must be located in the area screened by the topographic variation.

4. Trees shall be provided on the top of and on the outside face of all berms.
 5. All landscaping and screening shall be maintained in an attractive, litter-free, safe and healthy condition. Maintenance of all landscaping shall be of sufficient frequency to prevent overgrowth and deterioration from the original condition.
 6. The landscaped greenbelt required along with the perimeter of the parcel may be reduced in width or waived by the Planning Commission when the parcel abuts commercial/office or industrially zoned property and when existing off-street parking, drives and/or structures are located within the setback area. The Planning Commission may, at their discretion, modify or waive certain landscaping requirements in accordance with the considerations outlined in Section 27.05. *(amended 01.30.86, 09.16.93)*
- F. Sign Regulation. All signs shall comply with the standards set forth in Orion Township Sign Ordinance No. 138. *(amended 10.08.98, 02.21.06)*
- G. Lighting Regulations. *(amended 04.27.00)*
1. A lighting plan shall be submitted with all site plans as set forth in Section 27.11 of this Ordinance. All other Zoning Ordinance regulations shall apply unless otherwise noted in this Ordinance.
 2. Exterior site lighting shall be fully shielded and directed downward to prevent off-site glare.
 3. Site illumination on properties adjacent to residential properties shall not exceed 0.3 foot-candle along property lines, or 1.0 foot-candle along non-residential property lines. Parking lot lighting shall be governed by Section 27.11.
- H. Public Road Access. Any use developed or proposed within this district shall have direct access to an existing or proposed collector or major thoroughfare having a minimum right-of-way of at least one hundred twenty (120) feet.
- I. Utilities. If possible, all utilities servicing the business structure shall be buried underground.
- J. Covered Trash Areas.
1. Covered trash receptacles, surrounded on three (3) sides by masonry brick-type walls one (1) foot higher than the receptacle shall be provided in the rear yard.
 2. The fourth side of the enclosed trash receptacle area shall be equipped with an opaque lockable gate that is the same height as the masonry brick wall.
 3. The Planning Commission may, at their discretion, waive the requirements for a covered trash receptacle as described herein, if, after considering the nature of the operation being proposed, the Commission determines that the amount of trash generated can be adequately disposed of without use of an outside trash receptacle. *(amended 01.30.86)*
- K. Loading and Unloading.
1. Loading and unloading areas shall be located in the rear or side yard of a non-residential district.

- 2. Loading and unloading areas shall not be located where they will interfere with parking or obstruct ingress or egress.
- 3. All loading and unloading areas shall be in conformance with the requirements set forth in Section 27.04.
- L. Performance Guarantee Requirement. The Planning Commission shall require a performance guarantee to be deposited with the Township Clerk in accordance with the provisions set forth in Section 30.09, to ensure that necessary and required improvements proposed on the site plan will be completed. *(amended 08.15.16)*
- M. General. All activities and uses within this District shall conform to the following:
 - 1. Smoke. A person or industry shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one hour which is:
 - a. As dark or darker in shade as that designated as No. 1/2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or
 - b. Of such capacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Subsection (a) of this section.
 - c. At no time may smoke emissions be darker than Ringelmann No. 1.
 - 2. Open Fires. A person or industry shall not burn any combustible refuse in any open outdoor fire within the District.
 - 3. Noxious Gases. No noxious or malodorous gases shall be allowed to escape into the atmosphere in concentrations which are offensive, which produce a public nuisance or hazard on any adjoining lot or property, or which could be detrimental to human, plant or animal life.
 - 4. Air Contaminants. A person or industry shall not discharge from any source whatsoever such quantities of air contaminants or other material, including fly-ash, dust, vapor, or other air pollutants, which could cause injury or harm to health, animals, vegetation, or other property, or which can cause excessive soiling. Dust, dirt, smoke, or fly-ash shall not be in excess of 0.3 grams per cubic foot of flue gas at stack temperature of 500 degrees Fahrenheit and not to exceed fifty percent (50%) excess air.
 - 5. Glare and Heat. Any operation or activity producing glare shall be so conducted that direct and indirect illumination from the source of light shall not cause illumination in excess of one-half (0.5) of one (1) foot-candle when measured at any adjoining residence or business district boundary line. Flickering or intense source of light shall be so controlled as not to cause a nuisance across any lot lines. If heat is a result of an industrial operation, it shall be so insulated as to not raise the temperature at any property line at any time.
 - 6. Noise. Sound levels as measured at the common property line shall not exceed the following decibel levels when adjacent to the following types of uses:

SOUND LEVEL	ADJACENT USES
70 dBA	Residential, Office & Professional
80 dBA	Commercial, Recreation
90 dBA	Industrial and Other

The sound levels shall be measured using A-weighted decibel measurements (reference to 20 micropascals) and with a type of audio output meter approved by the United States Bureau of Standards.

Objectionable noises due to intermittence, heat, frequency, or shrillness shall be muffled so as not to become a nuisance to adjacent uses.

7. **Vibration.** Vibrations from railroad operations and vehicular traffic in this district must be controlled to the extent that they cannot be felt past any property line.
8. **Radio Transmission.** For electronic equipment required in an industrial operation, the equipment shall be so shielded that its operation will not interfere with radio, television or other electronic equipment.
9. **Prohibited Materials.** Railroad cars containing radioactive, explosive, or toxic substances shall not be allowed within the Railway Freight Yard District at any time.
10. **Flammable Materials.** Any activity involving the use or storage of flammable or explosive materials shall be protected by adequate fire-fighting and fire suppression equipment and such safety devices as are normally used in the handling of any such material. Such hazards shall be kept removed from adjacent activities to a distance which is compatible with the potential danger involved.
11. **Water Pollution.** Pollution of water shall be subject to such requirements and regulations as are established by the Michigan State Department of Health, the Michigan Water Resources Commission, the Oakland County Health Department, and the U.S. Environmental Protection Agency. Such requirements and regulations shall apply in all cases except when they are less stringent than the following standards in which case the following standards shall apply:
 - a. No wastes shall be discharged into the public sewer system which are dangerous to the public health and safety.
 - b. Acidity or alkalinity shall be neutralized to a pH of 7.0 as a daily average on a volumetric basis, with a maximum temporary variation of pH 5.0 to 10.0.
 - c. Wastes shall contain no cyanides and no halogens and shall contain not more than 10 p.p.m. of the following gases: hydrogen sulphite, sulphur dioxide and nitrous oxide.
 - d. Wastes shall not contain any insoluble substance in excess of 10,000 p.p.m. or exceeding a daily average of 500 p.p.m. or fail to pass a No. 8 Standard Sieve, or have a dimension greater than one-half (1/2) inch.
 - e. Wastes shall not have chlorine demand greater than 15 p.p.m.
 - f. Wastes shall not contain phenols in excess of .005 p.p.m.
 - g. Wastes shall not contain any grease or oil or any oil substance in excess of 100 p.p.m. or exceed a daily average of 25 p.p.m.
- N. **Safety Paths.** Construction of safety paths for pedestrian use and use by non-motorized vehicles shall be required in conjunction with the development of all parcels in this zoning district. The safety paths shall conform to the specifications outlined in Section 27.06 and Ordinance No. 97. *(amended 01.05.87, 02.03.03)*
- O. **Tree Preservation Regulations.** The tree permit requirements apply to developments in this District, according to the terms of Section 27.12. *(amended 08.03.00)*
- P. **Wetland Setbacks.** The wetland setback requirements apply to all developments in this District, according to the terms of Section 27.17. *(added 09.17.07)*

Section 20.05 – Area and Bulk Requirements (Applies to Principal and Accessory Uses)

		RFY
A	Front Yard Setback	150 ft.
B	Rear Yard Setback	150 ft.
C	Side Yard Setback	150 ft. on each side
D	Minimum Lot Area	40 acres
E	Maximum Structure Area	8,000 sq. ft.
F	Maximum Height of All Structures Except Transmission Tower	30 ft.
G	Minimum Clear Space Around Structures	30 ft.
H	Maximum Number of Rail Lines	20 separate lines

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