



RULE INTERPRETATION DETERMINATION

Determination #: 2018-006

Title: Dust Control

Drafted by: Plan Review

Rule in Question: Section 35-310.13 (a) A., Section 35-310.14 (a)(2), Section 35-A101 Definitions, Section 35-526 (Table 526-3b), (Section 35-526(f)(1), Section 35-527, Section 35-525, Section 26-17, Texas Clean Air Act, V.T.C.A., Health and Safety Code chapter 382.

Department Action: This RID is for clarification purposes and includes a suggested UDC amendment. The department concurs with staffs' position as presented below and subsequently will be applying the minimum requirements as described. Existing site with existing dust pollution and new sites with outdoor storage yards with truck loading and unloading of the storage items will require "paved" drive isles/lanes as indicated in this RID.



Michael Shannon, P.E., CBO
Development Services Director

Date

2/8/18

Effective Date of Determination: *(Immediately)*

Please note RIDs often result in direct or related UDC amendments to codify the clarification addressed within the RID. RIDs can also be superseded by subsequent RIDs or UDC amendments. The Development Services Department will remove RIDs from the website when they are no longer valid.

Staff Analysis: There are problems with dust being generated at various sites that are both a nuisance to neighbors and covered under State and City ordinances. Large equipment and vehicles move across unpaved sections of lots creating dust that drifts into other's properties, into public and private streets, City Right of Way, and other surrounding areas adjacent to these facilities.

Chapter 26 Section 17 of the City ordinances adopts the Texas Clean Air Act, V.T.C.A, Health and Safety Code chapter 382 and rules adopted by the Texas Commission in Environmental Quality (TCEQ) for the control of air pollution within the City of San Antonio. Both City ordinance Chapter 26 Section 16, and the Texas Health and Safety Code Section 382.003 Definitions define "Air Contamination" as the following:

"Air contaminant" means particulate matter, radioactive material, *dust*, fumes, gas, mist, smoke, vapor, or odor, including any combination of those items, produced by processes other than natural. [emphasis added]

Texas Health and Safety Code Section 382.113 Authority of Municipalities, in part, provide the rights of municipalities to abate a nuisance and enact and enforce regulations for the control and regulation of air contamination.

One method of dust control is altering the surface materials where heavy equipment and vehicles are traveling, and where trucks are being used to move, load and unload materials being stored on-site.

The Unified Development Code (UDC) Chapter 35-310.13 I-1 General Industrial subsection (a) A., and Section 35-310.14 I-2 Heavy Industrial subsection (a)(2) both require all driveways, parking areas and pedestrian ways to be surfaced with an all-weather surface for properties zoned I-1 and I-2, general and heavy industrial.

Section 35-399.02 Parking Lots sub-section (b)(4) and Section 35-526(f)(1) Parking and Loading Standards both state that a "parking lot shall be properly graded for drainage; surfaced with concrete, asphaltic concrete, or asphalt; and maintained in good condition free of weeds, dust, trash and debris."

Section 35-527 Off Street Truck Loading Requirements apply to areas where trucks are being loaded and unloaded. Sub-section (e)(1) Drainage and Surfacing states that "areas shall be properly graded for drainage; surfaced with concrete, asphaltic concrete, or asphalt, and maintained in good condition..."

Section 35-526 Parking and Loading standards generally refer to parking of vehicles although sub-section 35-526(c) refers to storage and display of merchandise or materials in the yard. Sub-section 35-526(f) state that areas shall be properly graded for drainage; surfaced with concrete, asphaltic concrete, or asphalt, and maintained in good condition..."

UDC Section 35-A101 - Definitions and Rules of Interpretation defines "All weather surface" as the following:

"All weather surface" (parking and vehicular access). Vehicular "all weather surfaces" shall constitute: poured concrete on prepared subgrade; hot laid asphalt on a

prepared base course; single, double, or triple asphalt surface treatment (consisting of applications of asphaltic material, each covered with aggregate) on a prepared base course. Brick/concrete block/tile/flagstone set in mortar or on a prepared base course. The director of planning and development services shall determine if other materials may fit within this category of surface; however, in no case shall a material be considered a "all weather surface" if such surfaces generates or produces any dust or particulate matter that could be airborne to adjacent properties such as occurs with compacted base materials."

The purpose of this RID is to determine two items:

1. What defines the limits of "driveways, parking areas and pedestrian ways" that are required to have an approved all-weather surface. What areas of a lot are required to meet the UDC standards to control pollution of dust?
2. What constitutes "other materials" in the defining of "all weather surface". What is considered acceptable construction and materials for driveway and parking surface areas within any site with the purpose of controlling or eliminating dust contamination.

Staff Position and Interpretation:

What defines the limits of "driveways, parking areas and pedestrian ways" that are required to have an all-weather surface? What areas of a lot are required to meet the UDC standards to control dust contamination? The following are staff interpretations:

1. Dust is created by the movement of vehicles and heavy equipment on unpaved surfaces and/or compacted base.
2. The term driveway is the route taken by vehicles that are moving to different areas on a lot; used as a drive isle from a public way to vehicle parking areas (required off street parking of public and employee vehicles), as well as the normal circulation paths used by vehicles to move equipment, materials and other products around on a lot, and areas of lots where loading and unloading of materials, equipment and merchandise takes place.

There are therefore two drive areas then that require an all-weather surface. The first is the driveways to and from off-street parking stalls for vehicles required by 35-526. The second area are the "driveways", standard routes, or drive isles normally taken by vehicles, heavy trucks and heavy equipment moving to and from parking or storage areas, and normal circulation pathways used by vehicles to move, load and unload equipment, materials and products around on a lot covered by the UDC loading standards.

This RID applies to any existing facility in any zoning district outside of the "D" Downtown zoning districts that are out of compliance for dust pollution. This RID also applies to all new and remodel projects as indicated below, in any zoning district other than "D" downtown that are submitted to Development Services. Where an existing dust pollution problem exists, or for new projects with outdoor storage of materials and equipment on site where vehicles routinely travel for loading and unloading of materials and equipment, the following applies: In order to determine the extent and boundaries of driveways or travel lanes, owners of these types of facilities are required to submit a site plan that show the areas where outdoor storage exists and the drive isles or circulation paths used by vehicles to those areas where equipment,

materials and products are stored, loaded and unloaded to the director of Development Services. If required by Development Services after review of the site plan, a construction set with pavement design used to create the all-weather surface of the driveway/drive isle will be required to be submitted. Development Services strongly recommends that the site plan and construction drawings be prepared by the applicants design professional. Inspections of construction of these all-weather surfaces will be required.

What constitutes “other materials” in the defining of “all weather surface”? What is considered acceptable construction and materials for driveway and parking surface areas within sites with the purpose to control or eliminate dust? In all cases where an all weather surface is required on circulation paths to outdoor storage (excludes standard driveways to and from parking lots and the parking lots themselves), a pavement design is required to be submitted to Development Services. Pavements, as defined as all-weather surface include the following acceptable designs:

1. Poured concrete on prepared subgrade; jointed or continuous. The pavement design submitted to Development Services will be required to handle the expected traffic loads (ESALs).
2. Hot Mix or Warm Mix asphalt on a prepared base course; dense graded, open graded or stone mastic. The pavement design submitted to Development Services will be required to handle the expected traffic loads (ESALs).
3. Single, double, or triple asphalt surface treatment (consisting of applications of asphaltic material, each covered with aggregate) on a prepared base course. These include petroleum based binders – Emulsified Asphalts, Cutback Asphalts and Bunker C. It is expected that this surface would last from 2 to 7 years depending on traffic loads. Re-application of the surface treatment would be required with proposed schedule of re-application submitted to Development Services.
4. Brick/concrete block/tile/flagstone set in mortar, or on a prepared base course. The pavement design submitted to Development Services will be required to handle the expected traffic loads (ESALs).
5. Pervious Pavement as defined in Section 35-526 (j).
6. By an Administrative Exception Variance Request (AEVR), a proposal for a gravel surface course with fine aggregates between 8% and 15% passing the #200 sieve, may be submitted for review. The gravel or crushed granite must sit on a geofabric with high tensile strength over a prepared base course. Applications of palliative including magnesium chloride or calcium chloride or lignosulfonates are required - applied at manufacturers’ recommendations, three times a year. Maintenance for re-crowning for drainage and/or replenishment of gravel is required at least once a year. A schedule of palliative applications and maintenance is required to be submitted to Development Services. The AEVR request would be reviewed and approved on a case by case basis.

Any vehicle lanes that are also fire lanes are required to show that the design is able to support the weight of a fire apparatus under the International Fire Code section 503.2.3 as amended by the City of San Antonio (currently 75,000 pounds). Design documents shall be submitted with a Texas design professional’s seal.

Future UDC Amendments:

Staff recommends the following change to the definition of "All Weather Surface" in Section 35-A101 Definitions:

All weather surface (parking and vehicular access). Vehicular "All weather surfaces" shall constitute: poured concrete on prepared subgrade; hot or warm mix asphalt on a prepared base course; single, double, or triple asphalt surface treatment (consisting of applications of asphaltic material, each covered with aggregate) on a prepared base course, brick/concrete block/tile/flagstone set in mortar or on a prepared base course, or types of pervious pavement approved by development services. The director of Development Services shall determine if other materials may fit within this category of surface; however, in no case shall a material be considered an "All weather surface" if such surfaces generates or produces any dust or particulate matter that could be airborne to adjacent properties such as occurs with compacted base materials.

Staff recommends the following addition to the UDC Section 35-525 Parking and Storage Standards as follows:

35-525 (c) Drainage and Surfacing. All drive isles and drive lanes for vehicular access to and from Class 3, Class 4 and Class 5 storage areas shall be properly graded for drainage; surfaced with an all weather surface, and maintained in good condition free of weeds, dust, trash and debris.