

1. ADMINISTRATION

1.1 General

The City of Des Moines has adopted these Street Development Standards to set forth specific, consistent, and acceptable street design and construction elements for developers and other private parties constructing or modifying street or right-of-way facilities which require City licenses or permits, and to establish uniform criteria to guide the City's own design and construction of new City streets or reconstruction of existing streets.

In addition, these Street Development Standards, hereafter known as the Standards, are intended to support City goals for achieving affordable housing, providing adequate facilities for development in an efficient manner, complying with storm water management and environmental policies, and to balance these goals with the general safety and mobility needs of the traveling public.

These Standards establish uniform technical requirements for street design, construction, and reconstruction within the City of Des Moines. In establishing these uniform technical requirements, the Public Works Director has sought to encourage standardization of street design elements where necessary for consistency and to ensure so far as practical that motoring, bicycling, and pedestrian public safety needs are met. Considerations include safety, convenience, aesthetics, proper drainage, economical maintenance, and protection of environmental resources.

The City's permitting and licensing activities require the adoption of specific, identifiable standards to guide individuals and entities in the administration process of procuring the necessary City approval(s). Yet, the City must have the flexibility to carry out its general duty to provide streets for the diverse and changing needs of the traveling public and others who use the public right-of-way. Accordingly, these standards are not intended to represent the legal standard by which the City's duty to the public is to be measured.

The decision to use a particular road design element at a particular location should be made on the basis of an engineering analysis of the location. Thus, while these Standards provide the minimum requirements for design, it is not a substitute for professional engineering judgment. It is the intent that the provisions of these Standards be uniform requirements for street design, but may not be appropriate for all locations and existing conditions.

These Standards cannot provide for all situations. They are intended to assist, but not to substitute for, competent work by design professionals. It is expected that that architects, engineers, land surveyors, and contractors will bring to each project the best of their skills and abilities from their respective area of expertise. These uniform requirements are also not intended to unreasonably limit any innovative or creative effort which could result in the more effective and appropriate combination of improved design, cost savings, or both. Environmental constraints may require more intense or rigorous design parameters than would be otherwise required. However, any proposed departure from these Standards will be judged on the likelihood that such variance will produce a compensating or comparable result, in every way safe and adequate for the public.

The design engineer should take into account all available information and use the professional judgment that comes from training and experience to make final design determination. There should be some record, not necessarily formal or cumbersome, of the matters that were considered during the design process that would justify the decisions that were made regarding the final project design.

The Public Works Director will judge any proposed designs that depart from the requirements outlined in these Standards on the likelihood that such deviation will produce compensating or comparable results, adequate for street use and the general public. The Public Works Director will be the final authority in resolving disputes concerning questions of fact in connection with standards for street design and construction not directly covered by these Standards.

1.2 Document Application

The requirements contained in these Standards, together with any and all amendments thereto, shall apply prospectively to all road, bridge, right-of-way facilities, and other new construction of public and private roads in the City of Des Moines. In case of any ambiguity or dispute over interpretation of the provisions of these Standards, the decision of the Public Works Director shall be final.

The Standards apply to modifications of roadway features or existing facilities which are within the scope of reconstruction, widening, required off-site road improvements for land developments, or capital improvement projects when so required by the City of Des Moines or to the extent they are expressly referred to in project plans and specifications.

These Standards are not intended to apply to “resurfacing, restoration, and rehabilitation” projects, also known as 3R projects, as those terms are defined in the Washington State Department of Transportation (WSDOT) Local Agency Guidelines Manual (LAG), as amended. However, the Public Works Director may at his/her discretion consider the Standards as optional goals for the design and construction of 3R projects.

1.3 Authority for Document

The Public Works Director is authorized by the Street Development Standards Code DMMC 12.15, to prepare, adopt, and update design standards to establish minimum requirements for the design and construction of transportation facilities during construction. The standards contained in this design manual constitute the design standards authorized by DMMC 12.15. These standards are intended to be consistent with the most currently adopted provisions and editions of the Des Moines city code, the Comprehensive Plan, and the publications cited in the appendices of this manual.

1.4 Severability

If any part of these Standards as adopted by ordinance shall be found invalid, all other parts shall remain in effect.

1.5 Modifications to These Standards

From time to time, it may be necessary to modify the standards in the design manual. The Public Works Director may incorporate minor changes to this manual as they become necessary.

1.6 Relationship to other Documents and Standards

The most current edition of the following publications and manuals are approved for use by the Public Works Director and may be used to supplement these Standards when a specific subject is not covered or discussed:

- *Standard Specifications for Road, Bridge, and Municipal Construction*, as published by the Washington State Department of Transportation and the American Public Works Association.
- *Standard Plans for Road, Bridge, and Municipal Construction*, as published by the Washington State Department of Transportation and the American Public Works Association.
- *Manual on Uniform Traffic Control Devices*, as published by the U.S. Department of Transportation, Federal Highway Administration, as amended and approved by the Washington State Department of Transportation. Commonly known as the “MUTCD”.
- *Standard Specifications for Highway Bridges*, and any interim specifications, as adopted by the American Association of State Highway and Transportation Officials (AASHTO).
- *Construction Manual*, as published by the Washington State Department of Transportation.
- *Surface Water Design Manual*, as published by the King County Department of Natural Resources.
- *Local Agency Guidelines*, as published by the Washington State Department of Transportation. Commonly known as the “LAG Manual”.
- *Trip Generation*, as published by the Institute of Transportation Engineers.

The most current edition of the following publications are recognized by the Public Works Director as industry authorities and may be consulted on specific subjects not covered or discussed in this Manual or the above supplemental documents:

- *A Policy on Geometric Design of Highways and Streets*, as published by the American Association of State Highway and Transportation Officials. Commonly known as the “AASHTO Green Book”.
- *Americans with Disabilities Act (ADA) Standards for Accessible Design*, as published by the United States Department of Justice.
- *Plans Preparation Manual*, as published by the Washington State Department of Transportation.
- *Design Manual*, as published by the Washington State Department of Transportation.
- *Bridge Design Manual*, as published by the Washington State Department of Transportation.
- *Roadside Design Guide*, as published by the American Association of State Highway and Transportation Officials.
- *Hydraulic Manual*, as published by the Washington State Department of Transportation.
- *American Society for Testing and Materials (ASTM)*.

The design engineer may need to consult not only these Standards, but a number of other City of Des Moines documents. All road plans submitted to the City for review and approval shall be consistent with

these other adopted City standards or ordinances. These documents or standards include but are not limited to:

- City of Des Moines Comprehensive Plan
- City of Des Moines Comprehensive Transportation Plan
- City of Des Moines Transportation Improvement Plan
- Critical Areas Ordinance
- City of Des Moines Capital Improvement Plan

1.7 Responsibility to Provide Roadway Improvements

Any land development, which will impact the service level, safety, or operational efficiency of streets serving such land development, or is required by other City code or ordinance to improve such streets, shall improve those streets in accordance with these Standards. Off-site roadway improvements shall be based on an assessment of the impacts of the proposed land development by Public Works Director.

Any land development abutting and impacting existing streets shall improve the frontage of those streets in accordance with Chapter 12 of the DMMC and these Standards.

Any land development that contains internal roads shall construct or improve those roadways in accordance with these Standards.

For commercial developments, these Standards shall apply unless otherwise determined by the Public Works Director. These Standards shall apply to commercial developments with public/dedicated rights-of-way or easements, unless otherwise determined by the Public Works Director.

All new and reconstructed road and development projects shall provide applicable pedestrian and bicycle improvements that meet the Standards, unless otherwise approved by the Public Works Director.

Subdivisions, short subdivisions, binding site plans or any other developments that are subject to recording shall not be recorded until there exists a recorded continuous public maintained access, or an access that is covered by a maintenance financial guarantee to the development site. Additionally, the City will not accept a road or the drainage improvements within the road rights-of-way for maintenance until the road is directly connected to a City maintained or an acceptable publicly maintained road. This requirement also applies to public roadways located within a commercial development and those public roadways created through the binding site plan process and any other permit process.

1.8 Errors and Omissions

At the discretion of the Public Works Director, any significant errors or omissions in the plans approved by the City, or information used as a basis for such approvals may constitute grounds for withdrawal of the approvals and/or stoppage of any or all permitted work. It shall be the responsibility of the applicant, developer, or contractor to show cause why such work should continue, and make such changes in the plans that may be required by the Public Works Director before the plans are re-approved.

1.9 Deviation from Standards

No deviation from the technical requirements contained in these Standards may be made without first obtaining the written approval of the Public Works Director.

The minimum technical requirements contained in these Standards represent reasonable approaches to design and construction of streets, which indicate the appropriate engineering practice under most conditions. However, engineering design is an endeavor that examines alternative solutions in real world situations and accordingly, these Standards are not provided to hamper those creative engineered solutions. Situations will present themselves where alternatives may be preferred to allow conformance with existing conditions, to overcome adverse topography or to allow for more affordable solutions without adversely affecting safety, maintainability, or aesthetics.

1.9.1 Process

The following process is to be used to review a request to gain approval for alternative designs which vary from City of Des Moines Street Development Standards, but which serve to accomplish the intent of standards, criteria, and established minimum technical requirements contained in these Standards.

Requests for deviation should be submitted by the design engineer directly to the Public Works Director, together with the applicable fee (see Section 1.11), where they will be accepted, logged in, and assigned to the investigating staff. The Deviation Request Form can be found in Appendix C. At a minimum, the design engineer shall provide the following information:

Requestor's name, address, phone number, date of request, title of project, City of Des Moines Development File Number, project application numbers, relevant standard at issue, nature of requested deviation, and any other comments of relevance, together with the information required below in Section 1.9.2 of these Standards. The request package shall be stamped by a licensed professional engineer.

The Public Works Director will investigate the deviation request and coordinate with the design engineer and affected city staff as necessary. For deviation issues relating to the South King County Fire District, city staff shall notify the Fire District and request comments and concerns prior to issuing a staff recommendation. For deviation issues relating to School District(s), city staff shall notify the affected School District(s) and request comments and concerns prior to issuing a staff recommendation. City staff will in turn prepare a draft finding of facts and draft recommendations with regard to approval or denial in the form of a draft response letter to the design engineer to be signed by the Public Works Director.

The Public Works Director will review the design engineer's deviation request, together with all supportive material to justify the deviation request, and the draft finding of facts prepared by city staff and any staff recommendations included in the draft response letter.

When reviewing a deviation request, the Public Works Director will evaluate the request to determine if the proposal produces a compensating or comparable result which is in the public interest and that the proposal meets the requirements for safety, function, fire protection, appearance and maintainability utilizing the evaluation criteria outlines in Section 1.9.2. The Public Works Director shall then make a final determination and file a written finding of facts concerning the deviation request. The Public Works Director will grant or deny a deviation request in full or in part based on these findings. When granting a deviation, the Public Works Director may attach specific conditions to the deviation which will serve to accomplish the intent of standards, criteria, and established policies. Deviation requests must receive the approval of the Public Works Director before road construction plans can be approved.

Every effort will be made to complete the deviation review process within four weeks from acceptance of the deviation request by the Engineering Services division.

1.9.2 Evaluation Criteria

The Public Works Director has, for certain design items, established policy criteria which are used to assist in determining the appropriateness of granting a deviation from related City standards. Many of these policy criteria are contained in the documents outlined in Section 1.6 of these Standards.

Before any deviation may be granted, it shall be shown that:

1. The granting of such deviation will produce compensating or comparable results, adequate for the road users and the general public.
2. The granting of such deviation will not violate any development related conditions imposed upon the project.
3. The granting of such deviation will not be materially detrimental to the public welfare or injurious to the property or improvements in such vicinity in which the subject property is located.
4. Such deviation is based on sound engineering judgement, and that requirements for safety, function, appearance, environmental protection, and maintainability are fully met.

The Public Works Director may grant a deviation from the minimum technical requirements contained in these Standards only upon submittal of additional information, plans and/or design data by a design engineer showing that the requested deviation is safe, in the best interest of the public, and will not impose undue maintenance costs on the City of Des Moines, if applicable.

1.9.3 Re-Examination

The requesting party may seek a re-examination of the original request by transmitting a letter to the Public Works Director outlining exceptions taken to the original findings. The requesting party shall provide additional details specifically addressing the exceptions being taken in order to enable the Public Works Director to conduct additional evaluation of the request.

An additional deviation request fee is required with a re-examination request.

The Public Works Director will be final authority in resolving disputes concerning questions of fact in conjunction with standards for street design and construction not directly covered by these Standards, as set forth in DMMC 12.01.040.

1.10 Penalties and Financial Guarantees

Failure to comply with these Standards will be cause for denial of plan or development permit approval, revocation of prior approvals, withholding and reductions of financial guarantees, withholding final inspection approval, withholding occupancy certificates (temporary and permanent), legal action for forfeiture of financial guarantee, code enforcement, and/or other penalties as provided by law.

1.10.1 Performance/Restoration Financial Guarantees

Any construction work on City of Des Moines right-of-way (both maintained and unmaintained) other than Capital Improvement Projects by the City or City maintenance work, shall be guaranteed by a restoration financial guarantee or Public Agency Service Agreement (PASA).

1.10.2 Maintenance and Defect Guarantees

The successful performance of the right-of-way improvements or related drainage facilities shall be guaranteed for a period of at least 1 year from the date of the Construction Approval. The Public Works Director shall determine the amount and form of the maintenance financial guarantee. The minimum maintenance guarantee shall be \$2,000.00.

1.10.3 Private Facilities Guarantees

All work on private road and drainage facilities, required as a condition of a City approval process, shall be guaranteed by a maintenance and/or performance financial guarantee at the time of plat recording. Public Works Director shall determine the amount and form of the financial guarantee. The minimum restoration and/or performance guarantee shall be \$2,000.00. The preferred form is an assignment of funds.

1.11 Fees

Fees, charges or bonding requirements will be as established by the City Council adopting a fee, charge, and bonding requirement schedule except where specifically set forth in the DMMC.

The applicant/developer/contractor will pay for work beyond the normal working hours of an inspector at time and one half according to the overtime rates determined by the City.

The review of engineering plans, or portions thereof, and specifications may be reviewed by a third party, hired by the City of Des Moines.

Engineering Services fees for Engineering Plan Review, Right-of-Way Use Permits, Street/Alley Vacation Petitions, Vehicular Access Gate Permits, and Deviation Requests, will be assessed at the established rates as published in the current Development and Engineering Services Fee Schedule, available on the City website.

1.12 Definitions

When referring to these Standards the following definitions shall apply:

AASHTO: American Association of State Highway and Transportation Officials.

Access: An ability to enter or leave the general public street system from an adjacent driveway, shared access facility, alleyway, or private street.

Access Improvement: Any street improvement which is required at the intersection(s) created by the road approach(es) of the development to a City arterial classified street, or along a City local classified street between the street approach(es) of the development and the first local street/arterial street intersection(s), including said street intersection(s), including but not limited to entering sight distance and turn lane requirements.

ADA: Americans with Disabilities Act.

ADT: The Average Daily Traffic (ADT) is the general unit of measure for traffic defined as the total number of vehicles traveling past a particular point in an average 24-hour period. Typically the ADT is used to quantify the combined number of vehicles traveling either direction on a particular street.

Alley: A relatively narrow passageway intended for traffic to serve as rear access to lots or buildings. An alley is not intended for general traffic circulation.

Applicant: The person, party, firm, corporation, or other legal entity or designee proposing to do work regulated by these Standards.

Appurtenance: Equipment and/or accessories that are part of an operating system or subsystem.

APWA: American Public Works Association.

As-Built Drawings: See Record Drawings.

ASTM: American Society for Testing and Materials.

ATB: Asphalt Treated Base.

Auxiliary Lane: The portion of the roadway adjoining the traveled way for parking, turning or other purposes supplementary to through-traffic movement.

Backfill: Replacement of excavated material with suitable material compacted as specified.

Bikeway: A generic term for any road, street, path, or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Boring: Grade and alignment controlled mechanical method of installing a pipe or casing under a street or stream without disturbing the surrounding medium.

Breakaway Structure or Breakaway Design: A structure or installation that has been crash tested in accordance with National Cooperative Highway Research Program

Buffer: The space between the edge of the pavement or the back of the curb and the sidewalk.

Bus Zone: A designated space for loading and unloading transit passengers.

Capacity: The maximum number of vehicles that have a reasonable expectation of passing over a given roadway or section of roadway during a given time period under prevailing roadway and traffic conditions.

Channelization: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands or other suitable means to facilitate the safe and orderly movement of both vehicles and pedestrians.

City: The City of Des Moines, acting through its legally constituted elected officials, employees, or agents.

Clear Zone: The total roadside border area starting at the edge of the traveled way available for use by errant vehicles. The available clear zone is the distance, measured normal to the street, beginning at the edge of traveled lane to the closest part of any fixed object of nontraversable obstacle.

CMP: Corrugated Metal Pipe.

Compaction: The densification of a material, typically fill or asphalt, by mechanical means.

Conveyance System: The drainage facilities, both natural and man-made, which collect, contain, and provide for the flow of surface, stormwater, and sanitary sewage from the highest points on the land down to the receiving waters or receiving treatment facility. The natural elements of storm water conveyance systems include swales and small drainage courses, streams, creeks, rivers, lakes, and wetlands. The man-made elements of conveyance systems include gutters, ditches, pipes, channels, and retention/detention facilities.

Critical Areas: Those areas which are subject to natural hazards or those land features which support unique, fragile, or valuable natural resources including fish, wildlife and other organisms and their habitat and such resources which carry, hold or purify water in their natural state. Critical areas include but are not limited to erosion hazard areas, flood hazard areas, landslide hazard areas, seismic hazard areas, steep slope hazard areas, streams, wetlands and sensitive area buffers.

CSBC: Crushed Surfacing Base Course.

CSTC: Crushed Surfacing Top Course.

Cul-de-sac: A short street having one end open to traffic and the other temporarily or permanently terminated by a vehicle turnaround at or near the terminus.

Cultural Resources: Material evidence of human activities, occupations, and systems illustrated by districts, sites, landscapes, structures, objects, artifacts, ruins, buildings, and natural features that have been or are important in human history and prehistory, and in the maintenance of living cultures.

Dead End: A street without an exit.

Dedication: Shall mean the deliberate appropriation of land by its owner for public use or purpose, reserving no other rights than those that are compatible with the full exercise and enjoyment of the public uses or purpose to which the property has been devoted. The intent to dedicate will be evidenced by the owner by the presentment for filing of a final plat, short plat, binding site plan or statutory warranty deed that shows the dedication thereon. Acceptance by the public will be evidenced by written approval issued by the City of such document for filing with the County Auditor.

Design Hourly Volume (DHV): The DHV is generally the 30th highest hourly volume (30 DHV) of the future year chosen for design. On the average, in urban areas the DHV is usually 8 to 12 percent of the ADT.

Design Speed: A speed determined for design and correlation of the physical features of a street that influence vehicle operation; the maximum safe speed maintainable over a specified section of road when conditions permit design features to govern.

Developer: Any person, firm, partnership, association, joint venture or corporation, or any other entity who undertakes to improve residential, commercial, or industrial property or to subdivide for the purpose of resale and profit.

Development: Any man-made change to improved or unimproved real property including but not limited to, construction of buildings or other structures, placement of manufactured homes, mining, dredging, logging, clearing, filling, grading, paving, excavation, drilling operations, or the subdivision, short plat, and large lot division of property.

DHV: Design Hourly Volume.

DMMC: Des Moines Municipal Code.

Downstream Analysis: Report that assesses potential offsite drainage impacts associated with development of the project site and appropriate mitigation of these impacts in accordance with the requirements of the KCSWDM.

Driveway: A privately maintained access facility between the driveway approach point on a street, shared access facility, or emergency vehicle access and the abutting private property which provides access for vehicle traffic.

Driveway Approach: Any area, construction, or facility between the roadway and the driveway, shared access facility, or emergency vehicle access serving the abutting private property which provides access for vehicular traffic.

Dwelling Unit: One or more rooms designed for occupancy by a person or family for living and sleeping purposes, containing kitchen facilities and rooms with internal accessibility, for use solely by the dwelling's occupants; dwelling units include but are not limited to single detached units, townhouses, condominiums, apartments, factory built housing, and accessory units.

Easement: A right to use or control the property of another for designated purposes.

Edge of Traveled Way: The face of the curb for streets that are or will be constructed to the City of Des Moines Street Development Standards; or if no curb exists or is planned, the location on the pavement of the painted or marked edgeline; or if no edgeline is present, the edge of the pavement.

Encroachment: Occupancy of City right-of-way by nonroadway structures or other objects of any kind.

Engineer: A professional civil engineer licenses by the State of Washington.

Engineering Plan: A plan prepared, stamped, and signed by a professional civil engineer. An engineering plan may be supplemented with detailed drainage calculations, structural calculations, or other supporting documents needed to assess the total plan.

Entering Sight Distance: The sight distance required for a vehicle at a stopped position on the minor street to view an oncoming vehicle traveling at the speed limit on the major road and appearing after the moment has begun, and safely enter or cross the major street.

Established Grade: The profile and cross sections approved by the Public Works Director.

Eyebrow: A partial bulb located adjacent to the serving road that provides access to lots and serves as a vehicle turnaround.

FHWA: Federal Highway Administration.

Final Corrected Plans: See Record Drawings.

Frontage Improvement: Any roadway improvement which is required by City Code along the portion of the public right-of-way immediately adjacent to the development site. Frontage improvements may include, but are not limited to street pavement, curb, gutter, sidewalk, bus shelters, bus pullouts, storm drainage, undergrounding of existing overhead power and communications cable, street trees, and street lighting.

Functional Classification: The classification of a road as established by ordinance of the Des Moines City Council based upon the character or service the street is intended to provide with regard to mobility and access.

Generator Peak Hour: The specific 60 minute period of highest traffic volume for the specific use or activity under review.

Geometrics: The physical arrangement of the visible elements of a street such as alignment, grade, curvature, width and side slopes.

Grade: Rate or percent of change in slope measured along the centerline of the roadway or access point, either ascending or descending from or along the roadway/access point.

GSP: General Special Provisions.

Half-Street: A road section built adjacent to the property, which eventually will be completed to a full width road section when the adjacent property is developed or redeveloped.

Hammerhead: A type of roadway design used to provide a place for vehicles to turn around at the terminus of a street. The turnaround is typically in the shape of the letter “T”.

Heritage Corridor: A transportation corridor that is known for its intrinsic historic resource values irrespective of jurisdictional boundaries and ownership.

HMA: Hot Mix Asphalt.

Island: A defined area between traffic lanes for control of vehicle movements and/or for pedestrian refuge.

ITE: Institute of Transportation Engineers.

Joint-Use Driveway: A jointly owned and maintained driveway serving multiple properties.

KCSWDM: King County Surface Water Design Manual

L & I: Washington State Department of Labor and Industries.

LAG: Local Agency Guidelines.

Landing: A road or driveway approach area to any public or private road. Also, the level area at the back of the sidewalk ramp.

Loop Road: A street of limited length forming a loop, having no other intersecting road, and functioning mainly as direct access to abutting properties.

Low Volume Road: A neighborhood collector or lower classified road with an ADT of less than 400 vehicles.

Low Impact Development: An innovative ecosystem based approach to land development and storm water management that results in fewer environmental impacts.

Median: The portion of a divided roadway separating the traveled ways for traffic in opposite directions.

MPH: Miles Per Hour.

MUTCD: The Manual on Uniform Traffic Control Devices, published by the U.S. Department of Transportation.

NEC: National Electric Code.

New Construction: Construction of a new roadway or structure on a substantially new alignment, or the upgrading of an existing roadway or structure by the addition of one or more through traffic lanes, excluding auxiliary lanes.

Off-Street Parking Space: An area accessible to vehicles, exclusive of roadways, sidewalks, and other pedestrian facilities that is improved, maintained, and used for the purpose of parking a motor vehicle.

Pan Handle: A strip of land having a width narrower than that of the lot or parcel to be served and designed for providing access to that lot or parcel.

Passing Sight Distance: The minimum sight distance required for the driver of one vehicle to pass another vehicle safely and comfortably.

Pavement Widening: Pavement widening projects are expansion of the roadway surface for vehicular use and may involve earthwork, drainage and paving elements. These projects are considered alterations of the roadway and must address ADA accessibility for pedestrians.

Pavement Width: Paved area on shoulder-type roads, or paved surface between curb or gutter as depicted on Standard Drawings DM.A1.1 through DM.A6.1.

PC: Point of Curvature.

PCC: Portland Cement Concrete.

Peak-Hour: The specific 60 minute period in the day within which the highest traffic volumes occur.

Peak-Hour Trip: A vehicle trip end generated by the development during a peak-hour period.

PI: Point of Intersection.

Public Works Department: The City of Des Moines department responsible for administering development and capital improvements within the City of Des Moines.

Public Works Director: The Public Works Department employee responsible for the conditioning, review, inspection, and approval of right-of-way use permits, and road and drainage improvements constructed as part of development permits administered by the Public Works Department. The Public Works Director or his/her authorized representative shall be a professional civil engineer registered and licensed under the laws of the State of Washington.

Plan of Record: See Record Drawings.

Posted Speed: The speed limit actually signed along the roadway.

Private Access Tract: A privately owned and maintained tract that provides vehicular access to residential properties.

Private Street/Road: A roadway facility provided for by a tract, easement, or other legal means, that is privately owned and maintained, and provides private access by the owner(s) or those having express or implied permission from the owner(s), but not by other persons.

Professional Engineer: A professional civil engineer registered and licensed to practice engineering in the State of Washington.

PS&E: Plans, Specifications, and Estimate.

PT: Point of Tangent.

RCW: Revised Code of Washington.

Reconstruction: A reconstruction project involves major construction activity in excess of 3-R activity. Reconstruction includes significant changes in cross section, the addition of an auxiliary lane, and/or shifts in vertical or horizontal alignment. If 50 percent or more of the project length involves significant vertical or horizontal alignment changes, the project will be considered reconstruction. Reconstruction may require acquisition of additional right-of-way, and may include all items or work usually associated with new construction.

Record Drawings: The plan set which is certified to contain a true and accurate representation of the actual field conditions for the project during construction, or upon completion of construction. Also known as “As-built Drawings” or “Final Corrected Plans”.

Recoverable Slope: A slope on which the driver of an errant vehicle can regain control of the vehicle. Slopes of 4H:1V or flatter are considered recoverable.

Rehabilitation: Work similar to restoration except the work may include reworking or strengthening the base or subbase, recycling or reworking existing materials to improve their structural integrity, adding underdrains, replacing or restoring malfunctioning joints, substantial pavement under-sealing when essential for stabilization, pavement grinding to restore smoothness (providing adequate structural thickness remains), removing and replacing deteriorated materials, crack and joint sealing (but only when the required shape factor is established by routing or sawing), and improving or widening shoulders.

Restoration: Work performed on pavement or bridge decks to prepare them for an additional stage of construction. This may include supplementing the existing roadway by increasing surfacing and paving courses to provide structural capability, widening up to a total of ten feet, and installing localized safety improvements. Restoration will generally be performed within the existing right-of-way.

Resurfacing: The addition of a layer or layers of paving material to provide additional structural integrity, and improve profile, cross section, and overall serviceability.

Right-of-Way: All property that the City has any form of ownership or title and which is held for public road purposes, regardless of whether or not any road exists thereon or whether or not it is used, improved, or maintained for public travel.

Road: A roadway facility providing public or private access including the roadway and all other improvements laying inside the right-of-way.

NOTE: “Road” and “Street” will be considered interchangeable terms for the purpose of these Standards.

Road Plans: A set of construction drawings and related documents which completely describe the work to be accomplished along with all needed supporting documents, maps, calculations, graphs, etc., prepared by a professional civil engineer licensed in the State of Washington.

Roadway: An open, generally public way for the passage of vehicles, bicycles, and pedestrians. Limits include the outside edge of sidewalks, or curbs and gutters, or side ditches, including the appertaining shoulder and all slopes, ditches, channels, waterways, and other features necessary for proper drainage and protection within the right-of-way.

ROW: Right-of-Way.

R/W: Right-of-Way.

SEPA: State Environmental Policy Act.

Separate Turn Lane: An auxiliary lane for traffic in one direction which has been physically separated from the intersection area by a traffic island or stripe. Separate turn lanes may be included within intersections or separated from intersection areas by traffic islands.

Shared Roadway: A roadway that is open to both bicycle and motor vehicle travel. This may be an existing roadway, a street with wide curb lanes, or a road with paved shoulders.

Shoulder: The paved or unpaved portion of the roadway outside the traveled way that is available for emergency parking, non-motorized use, and lateral support of base and surface courses.

Sidewalk: That portion of the roadway between the curb lines or the lateral lines of a roadway, and the adjacent property, set aside and intended for the use of pedestrians or such portions of private property parallel and in proximity to a highway and dedicated to use by pedestrians.

Special Provisions: Specifications, specific to a particular project, that supplement the Standard Specifications.

Standard Specifications: The most current edition of the “Standard Specifications for Road, Bridge, and Municipal Construction” published by the Washington State Department Transportation and the Washington State Chapter of the American Public Works Association.

Stopping Sight Distance: The length of roadway ahead visible to the driver which would enable the vehicle traveling at the design speed to stop before reaching a stationary object in its path.

Street Frontage: Any portion of a lot or combination of lots that directly abuts a public right-of-way.

Surety: A bonding company, for example.

Surveyor: A professional land surveyor registered and licensed by the State of Washington.

Temporary: Lasting for a “limited” time.

Three R: See 3-R.

TIA: Traffic Impact Analysis.

TIR: Technical Information Report.

Traffic Impact Analysis: A comprehensive, supplemental report that compares conditions with and without the proposed development for the purpose of identifying transportation improvements necessary to mitigate capacity and safety deficiencies created and/or exacerbated by the proposed development.

Technical Information Report: A comprehensive supplemental report containing all calculations, conceptual design analysis, reports, and studies required to construct a complete site improvement plan based on sound engineering practice and careful geotechnical and hydrological design.

Traveled Way: The portion of a street intended for the movement of vehicles. The traveled way does not include curbs and gutters, bike lanes, parking lanes or shoulders.

TRB: Transportation Research Board.

Trip: A one-directional movement which begins at the origin and ends at the destination.

Trip Distribution: The process by which the movement of trips between zones is estimated. The data for each distribution may be measured or estimated by a growth factor process or by a synthetic model.

Trip End: A trip origin or a trip destination. A trip has two trip ends; the origin and the destination.

Trip Generation: A general term describing the analysis and application of the relationships that exist between the trip makers, the traffic study area, and the trips making. It relates to the number of trip ends in any part of the traffic study area.

Turn Out: The paved or concrete area outside the traveled way for a use by transit vehicles.

TWLTL: Two-way Left-turn Lane.

Unmaintained Road: A road within the City right-of-way that is accessible to public travel but is not maintained by the City.

Unopened Right-of-Way: A City right-of-way that exists by dedication or deed, but for which no vehicular roadway has been constructed.

Utility: A privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, or distributing communications, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, or any other similar commodity which directly or indirectly serves the public. Additionally, the privately, publicly, or cooperatively owned company that owns the line, facility, or system.

Walkway: A facility designated for pedestrian and nonvehicular traffic. Walkways are typically constructed of asphalt. Separation from vehicle traffic may be provided by pavement striping, curbing, a ditch or open space.

VPD: Vehicles Per Day.

VPH: Vehicles Per Hour.

WSDOT: Washington State Department of Transportation.

3-R: Resurfacing, restoration, and rehabilitation of existing roadways with minimal changes to alignment or grade.

