

**NOTES:**

1. HALF ROUND PLATE TO BE WELDED TO TOP FOR POLLUTION RETARDANT BASIN.
2. THE HALF ROUND PIPE SHALL BE ONE SIZE LARGER THAN DISCHARGE PIPE.
3. FOR STRUCTURE'S CONSTRUCTION DIMENSIONS AND SPEC'S., SEE PRECAST CATCH BASIN DETAIL.

**CATCH BASIN WITH  
POLLUTION RETARDANT BAFFLE (PRB)**

**TAMARAC**  
 The City For Your Life

**CITY OF TAMARAC**  
 PUBLIC SERVICES DEPARTMENT  
 ENGINEERING DIVISION  
 6011 NOB HILL ROAD  
 TAMARAC, FL, 33321

STANDARD DETAIL

POLLUTION RETARDANT  
 FIGURE DR-1

| REVISIONS |      |         |    |
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Drawn By:      Date:      Approved By:      Date:



























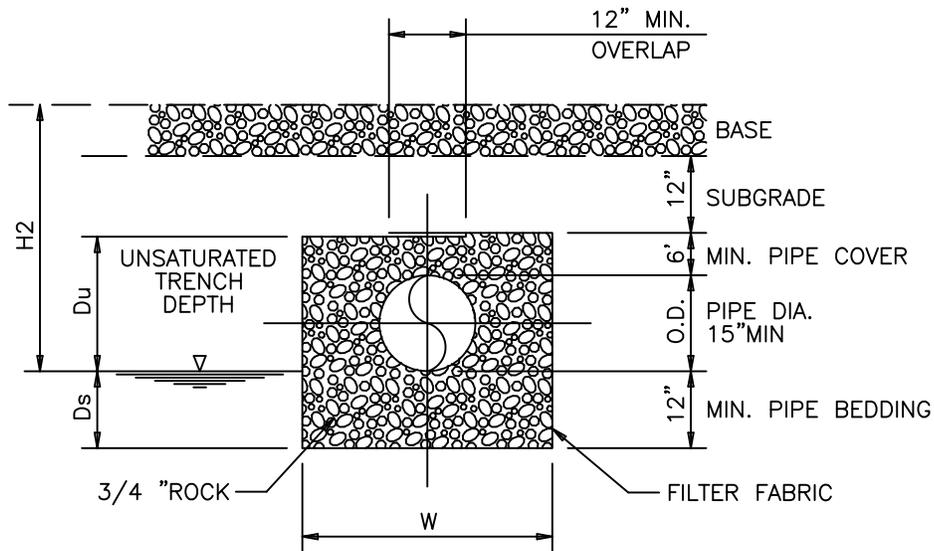












- L= LENGTH OF TRENCH REQUIRED (FEET)
- V= VOLUME TREATED (ACRE - INCHES)
- W= TRENCH WIDTH (FEET)
- K= HYDRAULIC CONDUCTIVITY (CFS/FT<sup>2</sup>- FT. HEAD)
- H<sub>2</sub>= DEPTH TO WATER TABLE (FEET)
- D<sub>u</sub>= NON-SATURATED TRENCH DEPTH (FEET)
- D<sub>s</sub>= SATURATED TRENCH DEPTH (FEET)

### TYPICAL EXFILTRATION TRENCH



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#### STANDARD DETAIL

### TYPICAL EXFILTRATION TRENCH FIGURE DR-20

| REVISIONS |      |         |              |
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Roadways and Parking areas

- 1) The project designer shall provide a sufficient combination of lane width and edge of pavement radii to allow all passenger vehicle turning movements (into, out of and within the site) to occur without encroaching into other lanes.
- 2) A minimum backup distance of twenty (20) feet is required between property lines or interior drives and the first parking stall
- 3) Banks, savings and loans, and restaurants having drive-in window facilities are required to provide one-hundred-foot stacking lanes for each window, free of adjacent parking stalls and associated backup lanes
- 4) Each parking space required and provided shall be not less than ten (10) feet in width and eighteen (18) feet in length, with a two (2) feet overhang. This requirement is intended to be the minimum parking space size requirement and is not intended to require existing parking spaces to be decreased in size to meet this minimum requirement. All parking shall conform to this section and the City of Tamarac's standard details.
  - (a) All required parking stalls shall have direct and unobstructed access from a parking aisle
  - (b) All off-street parking areas shall be so arranged and marked as to provide for orderly, safe loading, unloading, parking and storage of vehicles, with individual parking stalls clearly defined with approved pavement markings or curbing and traffic signs provided as necessary for traffic control
  - (c) No driveway shall be constructed in the radius return of an intersection. No driveway shall be constructed closer than twenty-five (25) feet to the intersection of street right-of-way lines. No driveway entrance shall include any public facility such as traffic signal standards, catch basins, crosswalks, loading zones, utility poles, fire alarm supports, meter boxes, sewer cleanouts or other similar-type structures
- 5) Markings and curbing shall be as follows
  - (a) Parking lots shall be marked by painted lines or raised concrete curbs or other means to indicate individual spaces
  - (b) Posted signs and markers shall be used as necessary to ensure sufficient traffic operation of the lot
  - (c) All ingress and egress lanes shall be marked by appropriate painted lines, arrows and stop signs. The arrows shall be painted with plastic silicone reflective paint
  - (d) Each stall shall be marked by a painted four-inch-wide line on each side. The width of the stall shall be measured from centerline to centerline of the painted lines. Each stall shall be provided with wheel stops.
  - (e) All pavement markings located within the public right-of-way or City owned property shall be thermoplastic material, in accordance with FDOT Standard Specifications

Pavement requirements:

1. Vegetation, muck, large roots, stumps or other matter not suitable for inclusion in roadways, parking lots, and within the right-of-way limits of roadways and off-street parking areas shall be removed.
2. Subgrade fill material shall be clean material meeting FDOT Standard Specifications. All Subgrade material shall have a minimum LBR of 40. The top twelve (12) inches of the subgrade material shall meet or exceed 98% modified proctor density per AASHTO T-180 and compacted in maximum six (6) inch lifts. After the subgrade is complete, the Contractor shall obtain from an independent testing laboratory at his expense a minimum of one (1) density test per two thousand five hundred (2,500) square feet.
3. Base course shall consist of an eight (8) inch (compacted thickness) limerock layer. Limerock shall have a minimum percentage of Carbonates of Calcium and Magnesium of 70% and a minimum LBR of 100. The base shall meet or exceed 98% modified proctor density per AASHTO T-180. After the base is complete, the Contractor shall obtain from an independent testing laboratory at his expense a minimum of one (1) density test per two thousand five hundred (2,500) square feet of material.
4. A prime coat shall be used on the finished limerock base and a tack coat shall be used between paving courses. All paved areas shall receive a minimum asphaltic concrete surface course of one and one half (1 1/2) inches, compacted thickness, two (2) 3/4" Lifts.
5. The final layer of asphaltic concrete directly adjacent to on going construction shall not be constructed until such construction is complete. The developer shall place three-fourths inch of asphalt cement surface course and after construction is completed, the final three-fourths inch layer will be constructed
6. All roadways shall have required sodding and landscaping prior to final acceptance by the city.
7. Roadways shall be striped in accordance with the latest Florida Department of Transportation Standards for Pavement Markings, the Manual on Uniform Traffic Control Devices, Broward County Traffic Engineering and the City of Tamarac engineering standard details which can be obtained from the City Engineer's office.
8. The placement and maintenance of shrubbery, aboveground sprinkler systems, mailboxes, signs, tree trimmings, refuse, concrete blocks, coral rock, pyramid-shaped cement curbstones, or any other sharp-edged or pointed organic or nonorganic or poisonous material which could cause a road or traffic hazard, or injury to pedestrians, on the swale area adjacent to the public right-of-way within the ten-foot area measured from the edge of the paved surface of the vehicular right-of-way is prohibited.

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|  | STANDARD DETAIL      |           | REVISIONS |              |         |    |
|  | GENERAL REQUIREMENTS |           | No.       | Date         | Remarks | By |
| NOTES-2  |                      |           |           |              |         |    |
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**Sight distance**

If a driveway intersects a public right-of-way, there shall be no sight obstruction within a triangular area of property on both sides of a driveway formed by the intersection of each side of the driveway and the public right-of-way line, with two (2) sides of each triangle being ten (10) feet in length from the point of intersection and the third side being a line connecting the ends of the two (2) other sides

- (a) If a crosswalk intersects a vehicular access aisle, driveway or a public right-of-way, there shall be no sight obstruction within a triangular area of property on both sides of a crosswalk or walkway formed by the intersection of each side of the walkway and the public right-of-way or aisle, with two (2) sides of each triangle being ten (10) feet in length from the point of intersection and the third side being a line connecting the ends of the two (2) sides
- (b) Within the triangular areas described above, it shall not be permissible to install, set out or maintain, or to allow the installation, setting out or maintenance of, either temporarily or permanently, any vehicular parking space, sign, wall, hedge, shrubbery, tree, earth mound, natural growth or other obstruction of any kind which obstructs cross-visibility at a level between thirty (30) inches and eight (8) feet above the level of the center of the adjacent intersection. Any wall or fence within the sight triangle must be constructed in such a manner as to provide adequate cross-visibility over or through the structure between thirty (30) inches and eight (8) feet in height above the driving surface
- (c) The following will be permitted within that portion of the triangular area described above that is not in the public right-of-way:
  - 1) Trees having limbs and foliage trimmed in such a manner that no limbs or foliage extend into the area between thirty (30) inches and eight (8) feet above the level of the center of the adjacent intersection. Trees must be so located so as not to create a traffic hazard.
  - 2) Trees having a trunk diameter less than or equal to (4) four inches.
  - 3) Landscaping, except required grass or ground cover, shall not be located closer than five (5) feet from the edge of any roadway pavement, and three (3) feet from the edge of any alley or driveway pavement
  - 4) Fire hydrants, public utility poles, street markers and traffic-control devices.

**Sidewalks.**

Sidewalks shall be constructed in accordance with the City of Tamarac's standard detail sheets and this section.

- a) Sidewalks shall be required in all new construction. All buildings shall be connect by a continuous path and provide accessible routes throughout the development to the public transportation system. Sidewalks shall also be required in all rights of way adjacent to the private and public property to create a continuous network throughout the City.
- b) Sidewalks shall be a minimum of five (5) feet in width and four (4) inches thick for residential developments and (6) inches thick for commercial developments and sidewalks that cross over driveways. Sidewalks shall be constructed to a true line and grade from transit mix concrete having a minimum twenty-eight-day compressive strength of three thousand (3,000) psi. Metal or approved wood forms shall be used for all concrete work and all surfaces exposed when forms are removed shall be rubbed while the concrete is green to produce a finished surface smooth and even, free of form marks, voids and honeycomb. Any irregularities greater than one-fourth inch, as determined by placing a ten-foot straightedge parallel with, or a four-foot straightedge perpendicular to the long axis of the sidewalk, shall be cause for rejection of that section of sidewalk between joints. Sidewalk wearing surfaces shall have broom finish. Sidewalk shall meet ADA requirements.
- c) Subgrade material under sidewalks shall be clean material free of vegetation, muck, large roots or other deleterious material. The top six (6) inches of the soil shall be compacted to 98% per AASHTO T-180.

**Concrete curbs and gutters.**

Curbs and gutters shall be constructed in accordance with the City of Tamarac's standard detail sheets and this section.

Concrete curbs and gutters shall be constructed to a true line and grade from transit mix concrete having a minimum twenty-eight-day compressive strength of three thousand (3,000) psi. Metal or approved wood forms shall be used for all concrete work, and all exposed surfaces shall be rubbed while the concrete is green to produce a finished surface smooth and even, free of form marks, voids and honey- comb. Any irregularities greater than one-fourth inch, as determined by placing a ten-foot straightedge parallel with the long axis of the curb, shall be cause for rejection of that section of curb.

- (a) Subgrade fill material under curbs shall be clean material free of vegetation, muck, large roots or other deleterious material as classified by FDOT Standard Specifications. All material supporting curbs shall have a minimum LBR of 40. The top twelve (12) inches of the soil shall meet or exceed 98% modified proctor density per AASHTO T-180 and compacted in maximum six (6) inch lifts.
- (b) Extruded curbs shall be poured monolithically
- (c) Control joints shall be tooled or cut every ten (10) feet.
- (d) All areas behind curbs shall be backfilled within seventy two (72) hours of placement.

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| <b>STANDARD DETAIL</b><br><br><b>GENERAL REQUIREMENTS</b><br><br><b>NOTES-3</b> |  | REVISIONS |       |              |       |
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**Easements**

Recorded easements shall be provided for the installation of all underground utilities facilities, in conformance with such size and location of easements as may be determined by the city engineer to be compatible with the requirements of all utility companies involved with respect to a particular utility service.

- a) Easements across lots or centered on rear or side lot lines shall be provided for public utilities where necessary and shall be at least twelve (12) feet in total width
- b) Where a subdivision is traversed by a watercourse, drainage way, canal or stream, there shall be provided a drainage easement or right-of-way, conforming substantially with the lines of such watercourses. Parallel streets or maintenance easements may be required where necessary for service or maintenance
- c) Easements may be required for drainage purposes, of such size and location as may be determined by the city engineer or by a drainage district if the plat lies within its jurisdiction. Such shall be required if necessary to tie into the city drainage system or any drainage district plan by the city engineer or the drainage district engineer
- d) All canal maintenance easements shall be a minimum of twenty (20) feet. No above ground construction or usage of this maintenance easement will be allowed.

**Restoration**

Pavement restorations shall conform with requirements of all applicable agencies having jurisdiction and the City of Tamarac's Code and Standard details.

- (a) Relocation of foliage. All natural foliage removed as a result of street cuts, median cuts, sidewalks or thoroughfare cuts shall be replaced or relocated at the expense of the applicant.
- (b) Laboratory and field tests which are necessary in the opinion of the city engineer to establish compliance with the compaction requirements of this section shall be conducted at the applicant's expense.
- (c) Temporary restoration shall be provided within the same day for the cutting of the pavement, street, curb or median. Such temporary restoration shall be constructed in a manner to provide a safety for the general public.
- (d) During the course of cutting and restoring any thoroughfare or street which consists of more than one (1) lane in either direction, not more than one (1) lane in either direction may be rendered impassable by traffic at any given time. Where practical, steel plates shall be used to facilitate through traffic during the period of construction.
- (e) Wherever pavement is damaged by the installation of new work or installation equipment, it shall be repaired to the full width of the lane.

**Retention Requirements**

**(a) Water Quality and Pretreatment**

- a. Water Quality and Pretreatment storage shall be designed in accordance with the South Florida Water Management District's (SFWMD) Permit Information Manual "Management and Storage of Surface Waters", latest edition.
- b. Water quality storage shall be provided for all development and shall be no less than one (1) inch of rainfall over the entire site.
- c. In addition to water quality storage, pretreatment storage shall be provided for all commercial and industrial development and shall be no less than one-half (1/2) inch of the rainfall over the entire site.
- d. Only the following storage volumes shall be credited towards water quality and pretreatment:
  - i. For the C-14 basin:
    - 1. Volumes stored in dry retention areas between elevations of 7.5 MSL and 10.0 MSL
    - 2. Volumes stored in wet detention areas between elevations of 7.0 MSL and 10.0 MSL
  - ii. For the C-13 basin:
    - 1. Volumes stored in dry retention areas between elevations of 6.5 MSL and 9.0 MSL.
    - 2. Volumes stored in wet detention areas between elevations of 6.0 MSL and 9.0 MSL.
  - iii. For either C-14 or C-13 basins, volumes stored in exfiltration trenches, calculated using the equations found in the South Florida Water Management District's Permit Information Manual "Management and Storage of Surface Waters", latest edition.
- e. The bottom of all dry retention areas shall be no lower than elevation 7.5 MSL within the C-14 basin and elevation 6.5 MSL within the C-13 basin.
- f. All water quality and pretreatment storage must be provided on site.

**(b) Additional Retention**

- a. The rains of April of 1979 and October of 1999 underscored the need for additional water storage areas within the City. The following minimum standards for additional retention within the C-14 drainage basin have been developed. It is imperative that all new development be subject to the minimum standards set for herein.
- b. The additional retention requirement applies only to the (C-14 basin) portion of the City of Tamarac lying west of NW 64th Avenue, less the area of land section 7, township 49 south, range 41 east.
- c. In addition to any other regulatory agency's storage requirements, new site plans shall be designed to provide nine thousand one hundred twenty five (9,125) cubic feet of additional stormwater retention per acre of development.
- d. Only the following storage volumes shall be credited towards additional retention:
  - i. Volumes stored in dry retention areas between elevations of 7.5 MSL and 10.0 MSL
  - ii. Volumes stored in wet detention areas between elevations of 7.0 MSL and 10.0 MSL
  - iii. Volumes stored in exfiltration trenches, calculated using the equations found in the South Florida Water Management District's Permit Information Manual "Management and Storage of Surface Waters", latest edition.
- e. The bottom of all dry retention areas used for the purpose of additional retention storage shall be no lower than elevation 7.5 MSL.
- f. All additional retention storage must be provided on site.

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**GENERAL REQUIREMENTS**  
**NOTES-5**

**CITY OF TAMARAC**  
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