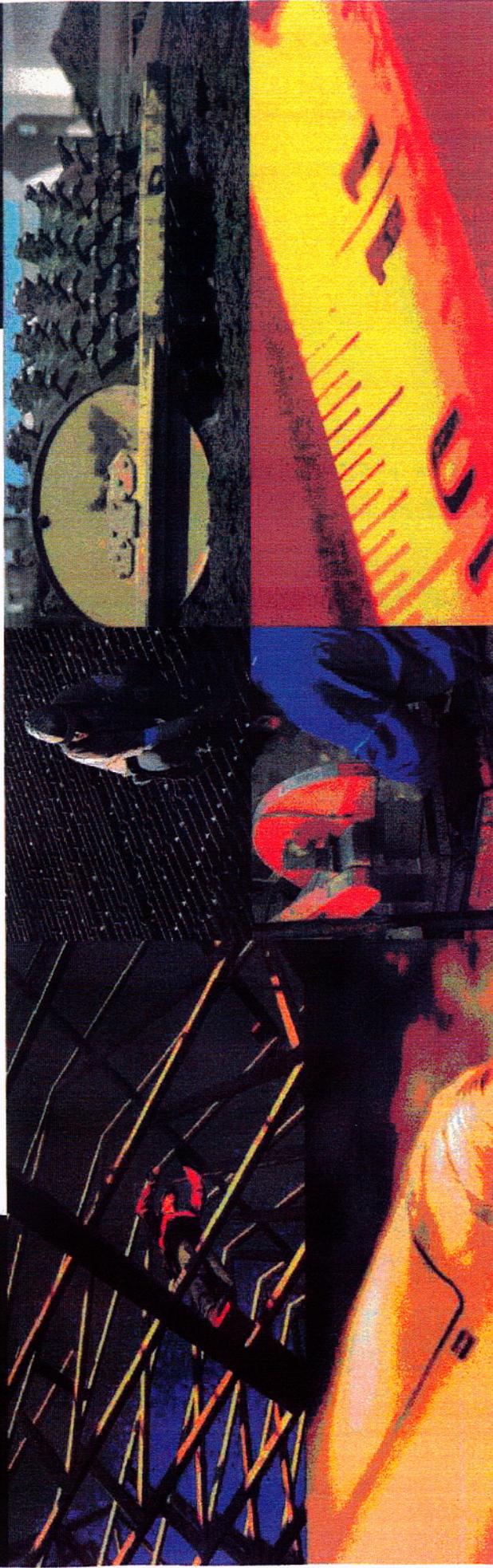


# CITY OF DESERT HOT SPRINGS STANDARD PLANS & SPECIFICATIONS



APPROVED BY: *Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXPI: 3/31/09

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SHEET 1

CITY OF  
DESERT HOT SPRINGS

STANDARD PLANS  
&  
SPECIFICATIONS



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STORM DRAIN

# **TYPICAL STREET** **SECTIONS**

## **STREET SPECIFICATIONS**

### **I. OBJECT & PURPOSE**

These Street Standards and Specifications are basically a statement of policy designed to achieve to the objectives of the " General Plan and the Code of the City of Desert Hot Springs ".

These Street Standards and Specifications have been prepared to insure development of adequate street sections for the existing and projected future traffic on the various classes of streets throughout the City that have been adopted as the " Major Street System " in the General Plan.

These Standards and Specifications are also to serve as a guide to sub dividers and developers in preparing standardized street plans and insuring acceptable uniform design of local streets in conformity with the General Plan and City Code concepts.

### **II. DEFINITIONS**

- A. City Code, as used herein, shall mean the official Code of the City of Desert Hot Springs as adopted by the City Council and any amendments thereto.
- B. City, whenever the term " City " is used herein, it shall mean the City of Desert Hot Springs or its authorized representatives.
- C. Development Department, as used herein, shall mean the Development Department of the City of Desert Hot Springs under the direction of the Director of Development or his authorized representative.
- D. Division of Highway Standard Specifications, as used herein, shall mean the Standard Specifications, State of California Department of Transportation current issue.
- E. Major Arterial, shall mean a divided street or highway serving large volumes of through traffic, with full or partially controlled access, carrying traffic from, to and between urban areas and state highways.
- F. Arterial Streets, generally a through street carrying large volumes of traffic, between major arterial and other arterials, normally having reasonable access to abutting property.
- G. Collector Street, a street that serves abutting properties while also being intersected by a net of local streets. Collector streets pick up and carry traffic to higher classes of streets.
- H. Local Commercial and Industrial Streets, a street whose prime purpose is to serve the abutting commercial or industrial property and normally with restricted access.
- I. Local Residential Street, a street whose purpose is to serve as an access to the residential abutting property, generally less than 1,320 feet in length.

- J. Minor Street, a street less than 600 feet in length whose prime purpose is to provide access to a limited area.
- K. Cul - de - Sac, a street that does not extend through to another street and terminates in a bulb or circular turn around area. Normal desired length less than 600 feet.

### III. DESIGN STANDARDS

#### **A. General Requirements**

The Sub divider or developer, shall prepare detailed street improvement plans for the street through their development in accordance with these standards and specifications.

The plans shall be submitted to the Development Department for approval at the time of submission of final maps.

No work shall be started until the plans have been approved. All work shall be completed under the inspection of the Development Department.

After completion of the construction, the Sub divider or Developer shall correct or certify the original of the Street Plans to **AS-BUILTS** and return them to the Development Department. As - Built drawings must be submitted before the City will accept the work and release the bond deposit placed by the Developer or Sub divider.

#### **B. Plans**

The Street Improvement Plans shall include a plan view and profile of the street or streets drawn on 24" x 36" Federal Aid Standard or similar sheets on good quality Mylar.

The plans shall be prepared in accordance with standard drafting practices and these standards.

The profile shall show curb and centerline of street elevation at grade changes and at curb returns, and the percent of grade between these points. The profile shall also show the elevation of the flow lines of cross gutters and drainage structures.

The plan view shall show bearing and distances between intersections, curve data including arc length, included angle and tangent length of all street centerlines in sufficient details for establishment of these lines.

The plan view shall also include all curve data of curb lines including arc length, tangent length, included angle and station numbers of the end and beginning curves and curb returns, in sufficient detail for field engineering and inspection.

The plan view shall also show the location of all drainage structures, valves, manholes, underground utility vaults, handicap ramps, driveways, cross gutters, curb and gutter sidewalk and street lights either existing or to be constructed. Also include details, typical sections, and any items necessary for the completion of the

project.

Where standard detailed drawings are referred to, they shall be attached or shown in detail on the plans or on a separate sheet.

**C. Street Standards**

1. Flexible Pavement Design: The structural section to be used on each of the different classes of City Streets shall be as hereinafter specified for the different classes of streets or based upon an engineered section design by the resistance value " R " Value method, designated as test No. 301 - F of the State of California Department of Public Works, Division of Highways Design Manual.

In calculating these sections, the following minimum traffic indexes shall be used

a. Major Arterials Minimum Index	8
b. Arterial Street Minimum Index	7
c. Collector Street Minimum Index	5- <sup>1</sup> / <sub>2</sub>
d. Local Commercial & Industrial Street	5 . <sup>1</sup> / <sub>2</sub>
e. Local Residential	4
f. Minor & Cul - de - Sac	3 - 1/2

The following structural sections are the minimum acceptable to the City in lieu of an engineering section.

a. Major Arterial	4" AC 10" Agg. Base
b. Arterial	3" AC 8" Agg. Base
c. Local Commercial & Industrial Street	3" AC 8" Agg. Base
d. Collector	3" AC 6" Agg. Base
e. Local Residential & Minor	3" AC 6" Agg. Base
f. Alley/Rural Street	3" AC 4" Agg. Base

2. Geometric Sections: The following sections are considered to be the desirable minimum acceptable to the City. Where circumstances and/or conditions warrant greater widths, additional R/W may be required or reserved and protected by building set - back lines.
3. Curve Data: Street and Highway curves are to be designed to safely handle the normal speed of the traffic for the area and type of street involved, but shall not be less than the following minimum:

<u>Class of Street</u>	<u>Curve Radii</u>
Major Arterial	750 feet
Arterial	500 feet
Collector	300 feet
Local	200 feet

Cul - de - Sac shall have a minimum property line radius of 45 feet and a minimum curb radius of 38 feet.

For detail, see City Standard Drawing No. 800.

4. Street Intersections: The intersecting angle of street centerline shall not be less than 45 degrees, opposing streets centerline should be opposite or have an offset not to exceed 12 feet or be separated by 150 feet for Residential Streets and 200 feet for others.
5. Street Grade: The minimum desirable street grade is 0.50%. Lesser grades are subject to individual determination by the Department. In either case, the slope or grade of cross gutters at intersections shall not be less than 0.50%.
6. Cross Gutters and Spandrels: Portland Cement concrete cross gutters and curb return spandrels are required in the flow line of all street intersections where normal drainage patterns cross a street. The normal cross gutter is 8 inch thick, placed upon 8 inch imported aggregate base material, 6" x 6" - 10" x 10" welded wire fabric placed throughout the cross gutter may be substituted for the 8 inch of imported aggregate base material. For particular details, see City Standard Drawing No's 214, 215, and 216.
7. Curb Returns: Portland Cement concrete curb returns are required at all intersections. The normal curb radius for the different classes of streets are as follows:

<u>Class of Street</u>	<u>Curb Radius Length</u>
Local Residential	25 feet
Commercial	25 feet
Industrial	25 feet
Collector	30 feet
Arterial	35 feet
Major Arterial	35 feet

At the intersection of two different classes of streets, the larger radii will be used. Variations from the above is subject to individual approval by the Department and based upon unusual conditions that prohibit the above radii.

8. Curb and Gutter:
  - a. Curbs: Portland Cement concrete straight face curb may be used on inverted streets and median island. Use in other areas is subject to approval by the City. The normal curb face is 6 inches. For construction details, see City Standard Drawing No. 203.
  - b. Curb and Gutters: Portland Cement concrete curb and gutter is required on all streets except where curb only is allowed.

The normal curb face height is 6 inches, an 8-inch curb face may be required on streets that serve as drainage channels.

18-inch wide gutters may be used on local residential streets; all other gutter widths shall be 24 inches.

Curb and gutters are to be integral cast in accordance with City Standard Drawing No's 200 and 201.

Wedge curb per City Standard Drawing No. 202 may only be used on private streets with individual Department approval.

9. Driveways: Driveways are to be so designed as to provide the best access to the property served with the least number of openings. Driveway openings on Arterial streets are not desirable and frontage roads may be required.

Under normal conditions, driveway openings shall not exceed 40% of the property frontage. Driveway openings will not be permitted in curb returns and in any case, shall not be less than 30 feet from the curb line of the intersecting street, measured perpendicular from the curb line extended.

A minimum length 16 feet of full height curb shall be maintained between two driveways serving the same property.

Common driveways to serve two (2) properties are acceptable under normal conditions. The width of a common driveway shall be the same as for a single driveway.

Driveway openings shall be measured along the flat on depressed type, and at the property line for those with a curb radius.

The normal openings for the various zones are:

Zone	Min. Width	Maximum
Residential	10 feet	20 feet
Commercial	12 feet	24 feet
Industrial	16 feet	32 feet

Driveway openings in excess of those above are subject to individual determination and proof will have to provided that the above limits would not provide adequate access and limit the use of the property.

On arterial and major arterial streets with speeds above 35 MPH, the driveway widths may be extended 5 feet for each MPH up to 45 MPH.

Depressed curb driveways will normally be used to serve residential, commercial and industrial lots. The gutter sections of the industrial and commercial driveways shall be thickened and reinforced, and constructed in accordance with City Standard Drawing No's 204, 205, 206, and 207.

Curb radius type driveway openings are normally used to provide access to shopping centers and other large parking areas.

The radius length should not be less than the width of the parkway and constructed in accordance with City Standard Drawing No's 208 and 209.

10. Driveway Approaches: Portland Cement concrete driveway approaches are required at all depressed curb driveways and shall extend to inside edge of the sidewalk. All driveways shall maintain ADA accessibility for sidewalks per City Standard Drawings No. 208 or 211.

The sidewalk area may be depressed where necessary for safety purposes; residential approaches shall be 6 inches thick, commercial and industrial 8 inches thick reinforced, all as shown on City Standard Drawing No's 207, 208, 209, 210, and 211.

11. Sidewalks: Portland Cement concrete sidewalks are required along all street frontages. The normal sidewalk thickness is 4 inches except as specified at driveway openings. All sidewalks shall provide ADA access for a 4' minimum at driveways.

The minimum acceptable widths of sidewalks are as follows:

Zone	Width	Location
Residential	4 feet	Adj. To curb
Multiple Residential	5 feet	Adj. To curb
Retail Commercial	Full width of Parkway	Adj. To curb
Industrial	5 feet	Adj. To curb

Variations of these standards to allow for landscaping are subject to the approval of the landscape plan by the city.

For detail, see City Standard Drawing No's 400 and 401.

12. Utility Location: Underground utilities located in the public Right - of - Way will generally be located as follows:

Facility	Location
Water	South & Eastside
Gas	North & Westside
Sewer	5 feet N/ or /W of centerline
Telephone	Parkway
TV Cable	Parkway Street
Lights	Parkway
Electricity	Parkway

Where possible, utilities located between curb lines will be in the parking lanes out of the travel way. If feasible, telephone, power and TV cable will utilize a common ditch. For typical details, see City Standard Drawing No. 802.

13. Monuments: Standard Monuments shall be set at all street centerline intersections, tangent points centerline curve if possible, or at the BC and EC of curves. For standard monument details, see City Standard Drawing No. 900.
14. Storm Drains: Storm Drains shall be initiated whenever a 10 year storm will exceed the top of curb for the ultimate street section. Storm drain main lines can be designed to carry the 10 year storm wherever there is continuing down stream outlet via public streets or approved drainage systems. Where open channels are proposed, or where a sump condition exists the storm drains shall be sized to carry a 100 year storm. The design of storm drain inlets and laterals shall be based upon a 100 year storm. The rational method shall be used for all computing of run off for areas less than 500 acres by the formula  $Q = CIA$ . Calculations shall be in conformance with the Riverside County Flood Control and Water Conservation Districts Hydrology Manual, latest edition.

Where Q = quantity of run off - cu. ft/sec  
Where C = Co - efficient of run off  
Where A = Area in square feet  
Where I = Average rainfall intensity expressed in inches/hr. (1.5 min.)

The following minimum value of C will be used.

Developed Residential	C = .60
Developed Commercial	C = .80
Developed Industrial	C = .70

Other formulas for calculating run off are acceptable subject to review by the Department. Pipe sizes less than 12 inches will not be acceptable. The calculations for the storm drain facilities shall be forwarded with the plans.

Inlet and outlet structures shall be Portland Cement concrete in accordance with City Standard Drawings.

15. Street Name Signs: Double-faced pole top mounted street name signs shall be installed at all intersections.

The sign shall bear the street name as approved and the block number, and be installed in accordance with City Standard Drawing No. 803.

16. Street Lights: Street lighting is required along all street frontages and shall be installed in accordance with "City of Desert Hot Springs " Development Department Street Lighting Standards and Specifications.

17. Street Trees: Street trees are required in some instances along property frontage for residential and commercial properties. Refer to Development Department for approval.

18. Landscaping: Landscaping may be allowed in the parkway area not required for sidewalk upon approval of the by the City and issuance of a permit. All landscape planters shall have a permanent irrigation system and all planters or landscape areas in the parkway between the sidewalk and property line, shall be protected by a concrete curb extending 6 inches above the level of the sidewalk.

19. Irrigation System: Permanent irrigation systems will be allowed in the parkways upon approval of the system by the Department of Public Works and issuance of an encroachment permit. The system shall be equipped with an approved backflow device or vacuum breaker mounted 12 inches above the highest head of outlet. All constant pressure lines in the parkway shall be metallic, all other lines may be plastic with a minimum of 12-inch cover. The system may be manual or automatically controlled.

Master control panel for automatic sprinklers shall normally be located outside the Right - of - Way Line and be equipped with a tight locking cover.

Automatic sprinkler valves where used, shall be the normally closed type. Electric sprinkler valves, where used, shall be low voltage type.

20. Ornamental Lighting: Ornamental lighting will be allowed in the parkway landscape area or on street trees upon approval of the plan by the Development Department and issuance of an encroachment permit.

All wiring shall be underground a minimum of 18 inches covered with continuous runs between fixtures, lights and/or junction boxes and in accordance with the National Electrical Code and State Electrical Safety Ordinance.

All lights below 7 feet shall shine upwards away from the traveled way and be covered with shields and guards and if attached to trees, shall not extend more than 12 inches from the trunk.

The use of flashing or colored lights that may interfere or conflict with traffic shall not be allowed.

#### **IV. MATERIAL SPECIFICATIONS AND CONSTRUCTION DETAILS**

##### **A. Construction**

1. General Requirements: All material and workmanship and testing for street construction required by Section 150 (Building Ordinance Regulations) of the City of Desert Hot Springs Code, shall be in accordance with the State of California, Department of Transportation Standard Specifications, current edition, except as herein modified.
2. Sample and Testing: The Developer and/or Sub divider shall, at his expense, provide all the necessary samples and test that the Department may require assuring that the quality of material and workmanship are in accordance with City Specifications.

At the option of the City, preliminary approval of the materials and the source of supply may be required prior to delivery to the job site.

3. Defective Materials: All materials not conforming to the requirements of these specifications shall be considered defective whether in place or not and all such materials shall be removed from the site unless otherwise approved by the City. Rejected materials, the defects of which have been corrected, may be used upon written approval the City.
4. Dust Control: In lieu of the application of a dust preventative (Section 18 of the Department of Transportation Standard Specifications), the Developer may make intermittent applications of water in sufficient quantity and frequency of intervals to maintain the work area free of dust, as directed by the Department of Public Works. The Developer shall make arrangements and provide the City with the name and address and the telephone numbers of the parties to be contacted should dust control measures be required to keep the area free after regular hours, on weekends, and holidays. All in-fill construction must adhere to PM-10 Rule 403.1 as required. All tract construction must adhere to all of the PM-10 and SWPPP guidelines as set under SCAQMD guidelines.
5. Responsibility: The Developer shall be responsible for all damages to on - site, off - site and adjacent utilities, facilities and property and shall carry sufficient insurance to protect the City and adjacent property.

##### **B. Materials**

1. Portland Cement Concrete: Portland Cement Concrete for curb and gutter, driveways, sidewalks, and cross gutter shall be Class " B " and furnished in accordance with Section

40, 30, 73, and 90 of the Department of Transportation, Standard Specifications, current issue.

Portland Cement Concrete for structures shall be Class " A " and furnished in accordance with Section 51 and 90 of the Department of Transportation Standard Specifications, current issue.

2. Aggregate Base Material: Aggregate Base Material shall be Class 2 furnished in accordance with Section 26 of the Department of Transportation Standard Specifications current issue.
3. Weed Killer: Application of weed killer is required before any new asphalt pavement can be constructed. The weed control shall be in accordance with Section 20 - 4.026 Caltrans Standard Specifications dated January, 1989 and as directed by the City Engineer.
4. Asphalt Concrete: Asphalt Concrete shall be furnished in accordance with Section 39 of the State of California, Department of Transportation, Standard Specifications except as follows:

The combined mineral aggregate shall conform to the grading specified for 1/2 inch maximum, medium grading for base layer and 3/8 inch maximum, medium grading for the surface course.

Bituminous binder to be mixed with the mineral aggregate shall be steam - refined paving asphalt grade of AR 1000, conforming to Section 92 of the Standard Specifications. The grade of the paving asphalt to be used will be determined by the Engineer.

Asphalt paint binder shall be furnished and applied in accordance with Section 93 of the Standard Specifications. Application of a fog seal is required in an amount approved by the Department.

5. Earthwork: The earthwork involved shall conform to Section 19 of the Division of Highways Standard Specifications except as herein modified.

Compaction requirements calling for excavating the natural ground are waived and the following requirements shall apply. When the relative compaction of the natural ground is a graded roadbed in cut sections, upon which a specified layer of roadbed material is to be placed is less than 95%, the graded roadbed in cut section shall be compacted until a relative compaction of 95% is obtained in the top 6 inches of the graded roadbed. When the relative compaction of natural ground area upon which embankment fills are to be placed is less than 96%, and such soils are above a place two (2) Feet below finished grade of the roadbed, the ground surface shall be compacted before any embankment is placed thereon until a relative compaction of 95% is obtained in the top 6".

6. Monument Covers and Frames: Shall be cast iron, minimum of 12 inches long, covers shall be notched or have depressions to facilitate removal. They shall be marked with the letter " M " and installed in accordance with City Standard Drawing No. 900.
7. Street Name Signs: Street name signs shall be double faced porcelain enamel, pole top

mounted of a design approved by the City, mounted 7 feet above the sidewalk or ground.

The sign post shall be 2 inches standard galvanized iron pipe 8.5 feet long set 18 inches deep in a 12 inch diameter concrete footing.

The street name sign shall generally be set on the Southeast corner of the intersection.

Refer to City Standard Drawing No. 802.

8. Irrigation System: All material and workmanship shall be in accordance with the uniform plumbing code as adopted by the City of Desert Hot Springs and as set out in this section.

All constant pressure pipe located in the parkway under AC pavement or concrete sidewalks, driveways, etc., must be either type K copper or high density virgin polyethylene pipe, Orangeburg Class 160 or equal. Where copper tubing is used, all underground connections shall be compression type unions.

Constant pressure pipe located in the parkway not under AC pavement or concrete work shall be rigid PVC Schedule 40 pipe with solvent welded fittings. All constant pressure pipes shall have a minimum of 12-inch cover.

Pipe not under constant pressure shall be rigid PVC. Class 200/SDR 21 or approved equal with a minimum cover of 12 inches.

Fittings for all PVC pipe shall be PVC Schedule 40. All risers above the ground level shall be standard galvanized pipe.

Vacuum breakers where used shall be brass bodied with synthetic seating, combination shut off type. Backflow devices shall be of a type approved by the City. Automatic Sprinkler valves may be used, electric valves where used shall be the low voltage type.

All electric controlled sprinklers shall have copper conductors with rubber or thermoplastic covering. When buried underground, the conductors must have a minimum of 12 inches of cover. When buried under driveways or other traveled way, they are also to be encased in a plastic tube or sleeve.

The meter control panel and all equipment of 120 volts or over must be located on private property and entirely off the public Right - of - Way. The controller box shall be equipped with a tight locking cover.

9. Ornamental Lighting: All material and workmanship shall be in accordance with the latest edition of the National Electrical Code, and the Uniform Wiring Code and the State Electrical Safety Orders and these specifications.

Junction and pull boxes shall be concrete with bolt on covers marked " HIGH VOLTAGE".

All underground wiring is to be encased in PVC conduit with a minimum of 18 inches cover. Risers from PVC conduit to fixtures over 12 inches above ground level shall be of

standard rigid galvanized conduit.

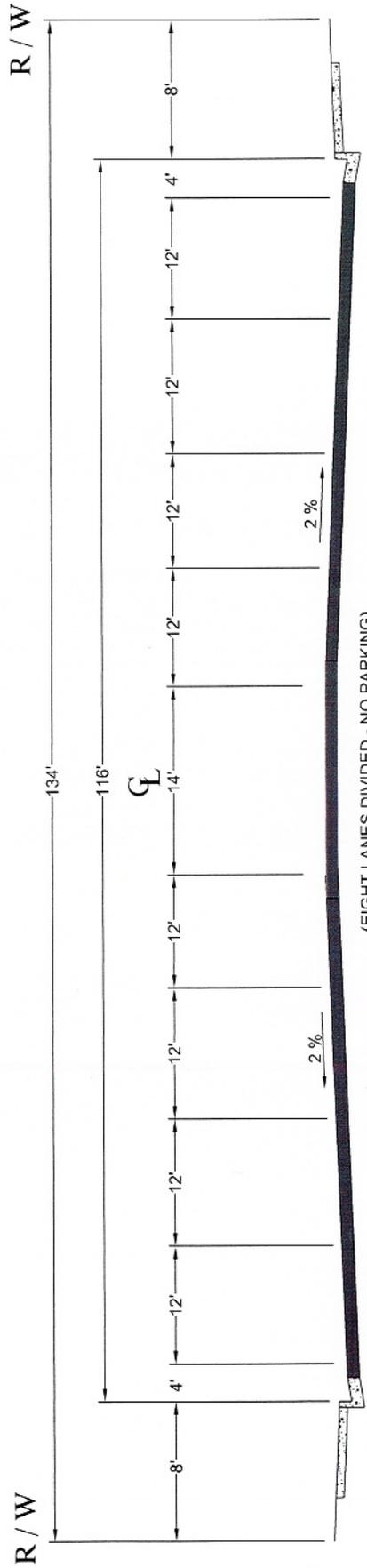
All light fixtures and utility boxes shall be waterproof and located a minimum of 12 inches above the ground.

Conduits running up tree trunks shall be rigid metal tubing beginning at 12 inches above ground and shall be equipped with weather proof fittings. The conduit shall be securely anchored to the tree at a minimum of four (4) foot intervals.

All conductors shall be copper. No splices will be permitted in underground runs between fixtures or junction boxes. All lights are to be weather sealed, directional flood type. Fixtures mounted below seven (7) feet in height shall be equipped with glare shields and with a wire guard that cannot be removed without tools. Any light mounted lower than seven (7) feet above ground shall not protrude more than twelve (12) inches from the tree.

The use of red, green, amber or any form of flashing lights in the vicinity of traffic signs or signals is subject to review and approval of the City Engineer.

All control panels and necessary safety devices shall be located on the applicant's property. They shall be water tight, UL approved and equipped with a locking device and circuit breakers or fuses of a size required to protect the system.



(EIGHT LANES DIVIDED - NO PARKING)

# URBAN ARTERIAL



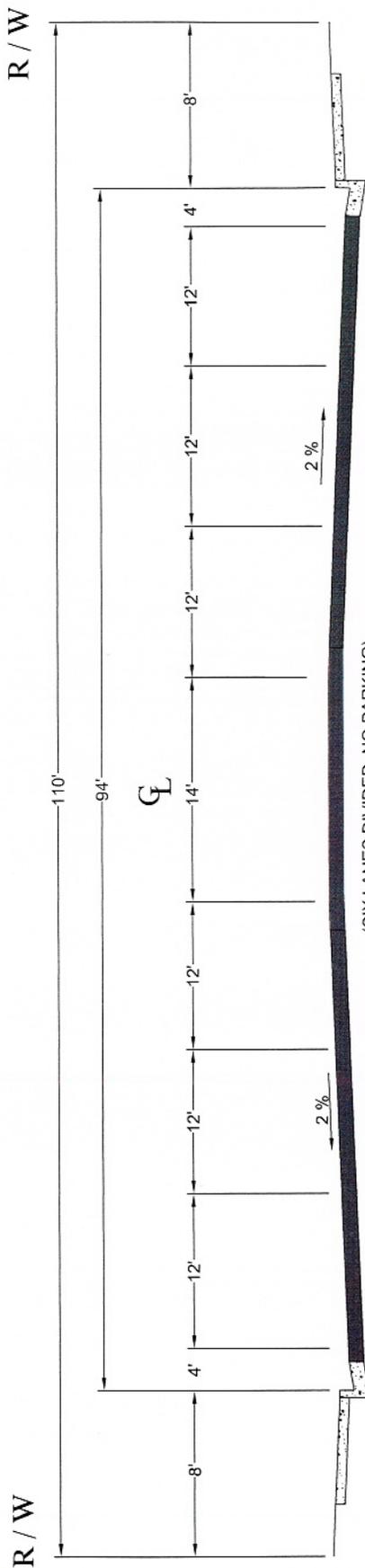
CITY OF  
DESERT HOT SPRINGS  
GENERAL PLAN ROADWAY  
CROSS SECTIONS  
**URBAN  
ARTERIAL**  
STANDARD NO. 100

APPROVED BY: *[Signature]* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

DATE	REVISIONS:	BY:	APR'D	DATE
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	2			
	3			

DRAWN BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SCALE: NONE  
SHEET 1 OF 1



(SIX LANES DIVIDED, NO PARKING)

## MAJOR ARTERIAL



CITY OF  
DESERT HOT SPRINGS

GENERAL PLAN ROADWAY  
CROSS SECTIONS

**MAJOR ARTERIAL**

STANDARD NO. 101

APPROVED BY: *[Signature]* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

DATE:	REVISIONS:	BY:	APRD	DATE
	1			
	2			
	3			

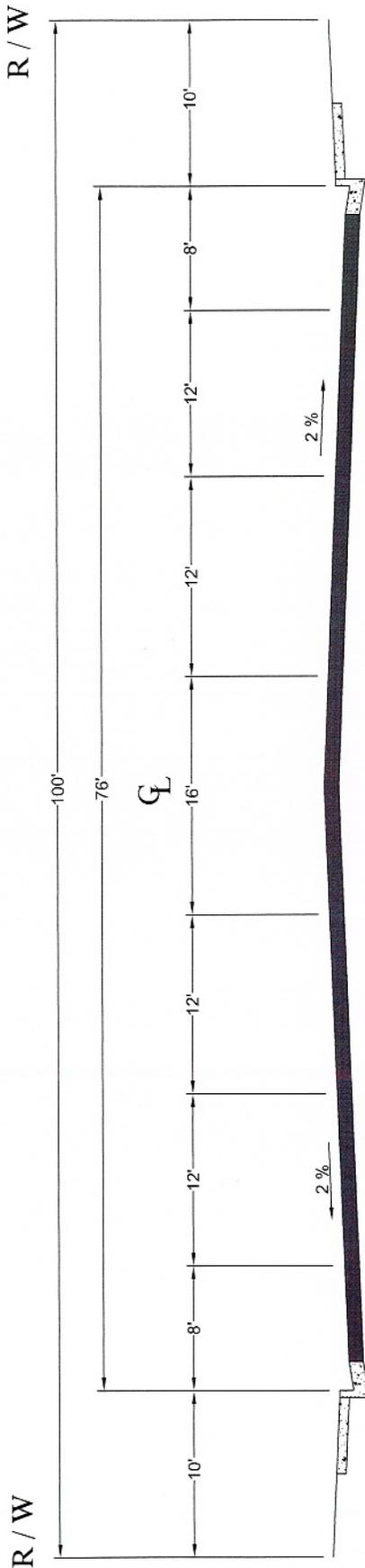
DRAWN BY: \_\_\_\_\_

DATE: \_\_\_\_\_

SCALE: NONE

SHEET 1 OF 1





# MAJOR COLLECTOR



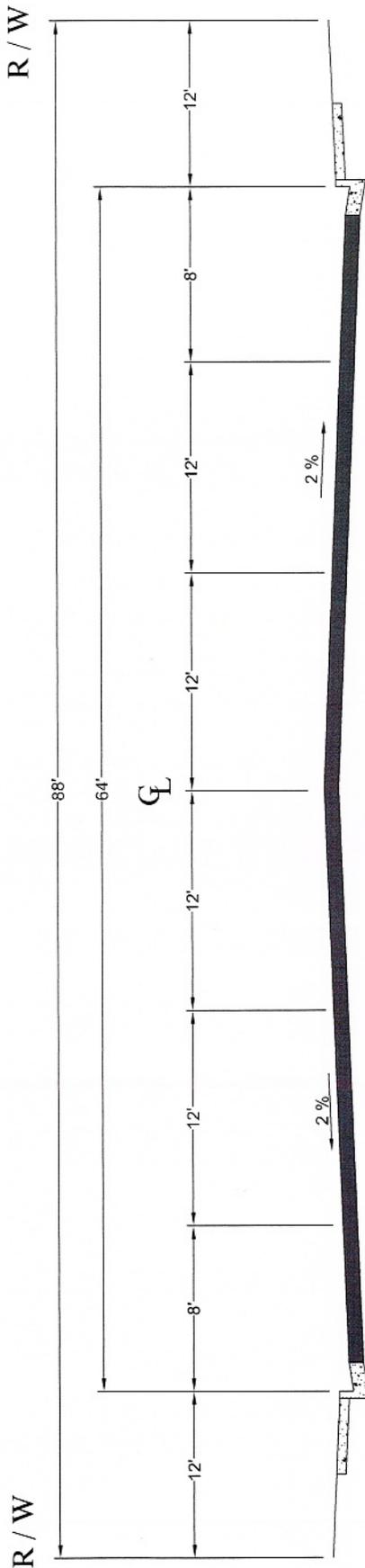
CITY OF  
DESERT HOT SPRINGS  
GENERAL PLAN ROADWAY  
CROSS SECTIONS  
**MAJOR COLLECTOR**  
STANDARD NO. 103

APPROVED BY: *Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

REVISIONS:	BY:	APRD	DATE
1			
2			
3			

DRAWN BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SCALE: NONE  
SHEET 1 OF 1



# MINOR COLLECTOR



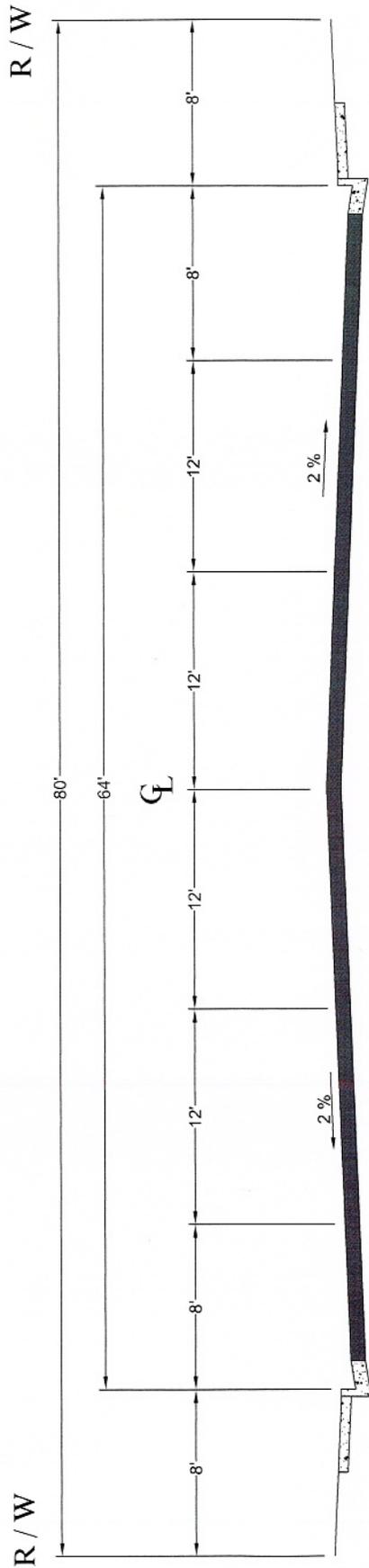
CITY OF  
DESERT HOT SPRINGS  
GENERAL PLAN ROADWAY  
CROSS SECTIONS  
**MINOR COLLECTOR**  
STANDARD NO. 104

APPROVED BY: *Gene T. Ginther* 5/13/07

GENE T. GINTHER CITY ENGINEER  
PCE 40429 EXP: 3/31/09

DRAWN BY:	REVISIONS:	BY:	APRD	DATE
	1			
	2			
	3			

DATE: \_\_\_\_\_  
SCALE: NONE  
SHEET 1 OF 1



## SECONDARY



CITY OF  
DESERT HOT SPRINGS

GENERAL PLAN ROADWAY  
CROSS SECTIONS

**SECONDARY**

STANDARD NO. 105

APPROVED BY: *[Signature]* 3/18/07

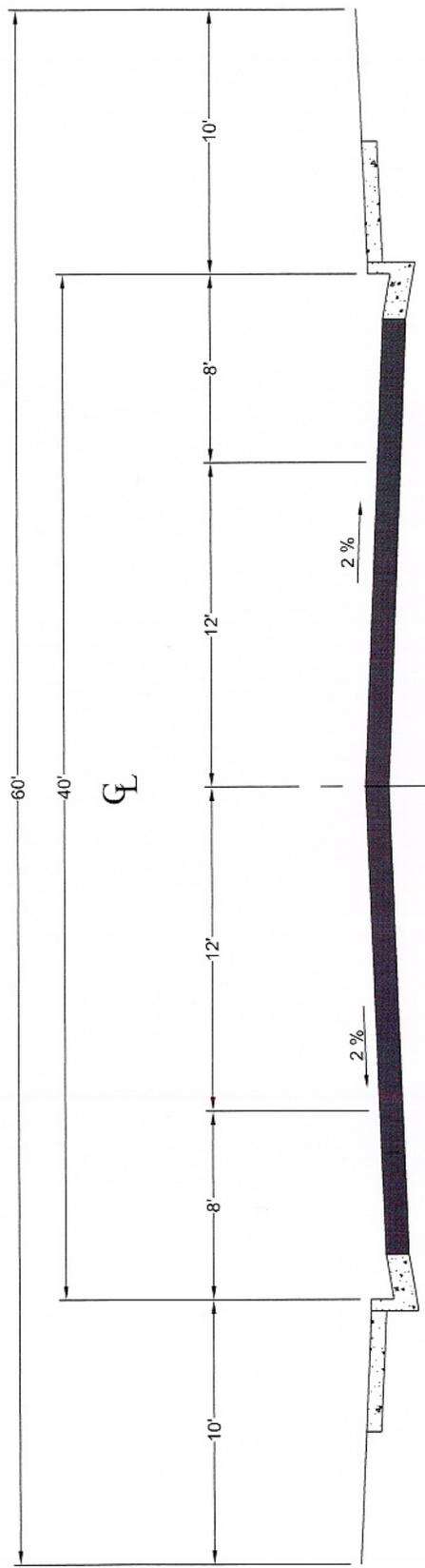
GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

REVISIONS:	BY:	APRD	DATE
1			
2			
3			

DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SCALE: NONE  
SHEET 1 OF 1

R / W

R / W



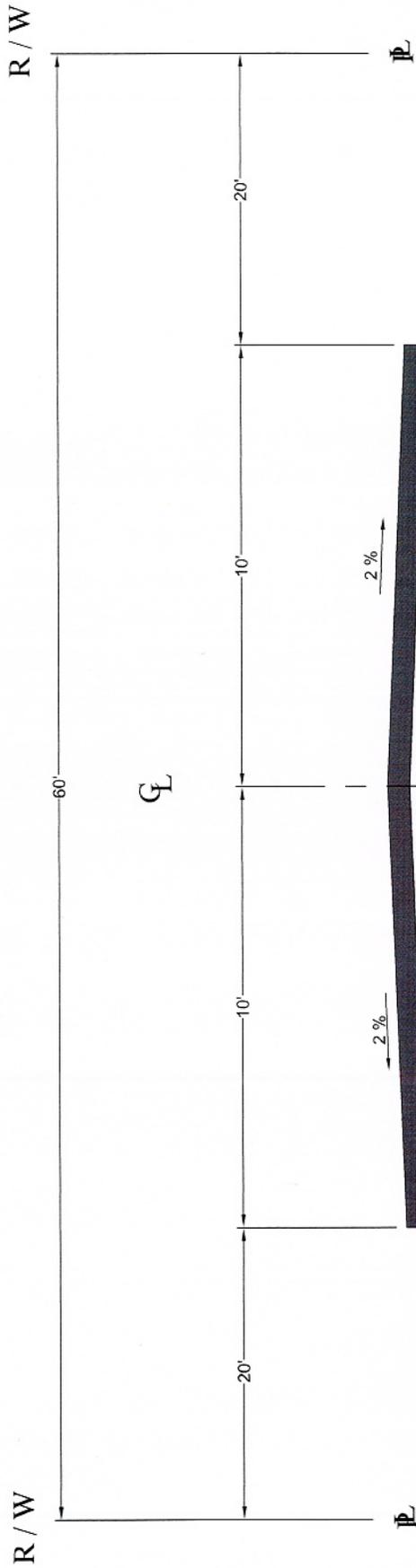
# LOCAL COLLECTOR



CITY OF  
DESERT HOT SPRINGS  
GENERAL PLAN ROADWAY  
CROSS SECTIONS  
**LOCAL COLLECTOR**  
STANDARD NO. 106

APPROVED BY:	<i>Gene T. Ginther</i> 3/13/07		
DATE:	REVISIONS:	BY:	APRD DATE
SCALE: NONE	1		
SHEET 1 OF 1	2		
	3		

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09



# RURAL STREET



CITY OF  
**DESERT HOT SPRINGS**  
 GENERAL PLAN ROADWAY  
 CROSS SECTIONS  
**RURAL STREET**  
 STANDARD NO. 107

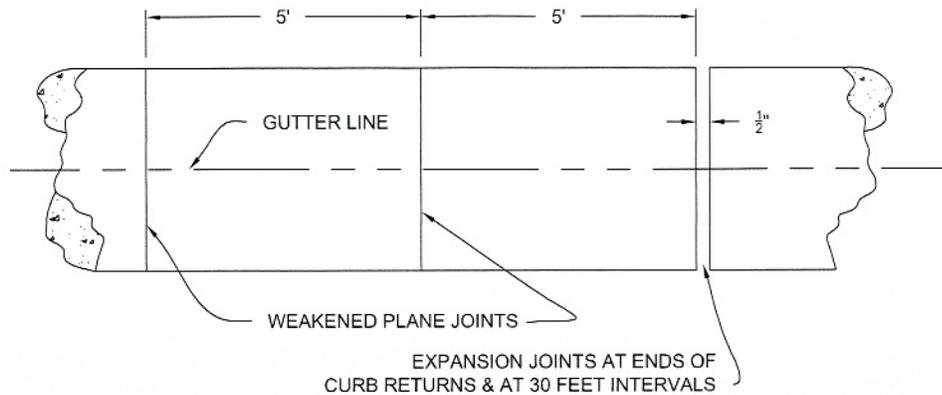
APPROVED BY: *Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

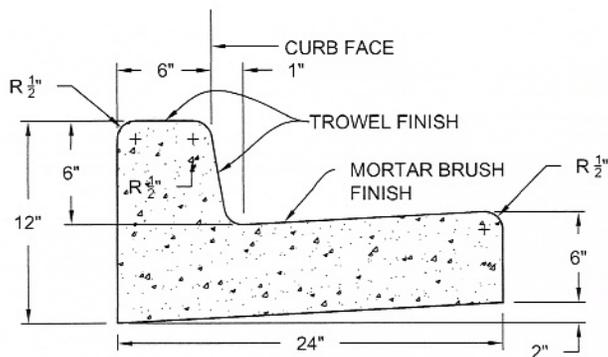
REVISIONS:	BY:	APRD	DATE
1			
2			
3			

DRAWN BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 SCALE: NONE  
 SHEET 1 OF 1

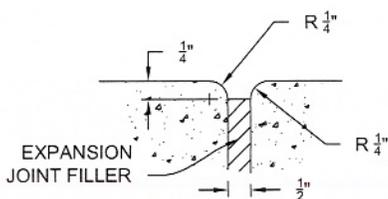
# **CURBS, DRIVEWAYS** **& RAMPS**



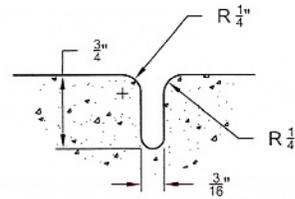
**ELEVATION DETAIL**



**X - SECTION**



**EXPANSION JOINT DETAIL**



**WEAKENED PLANE JOINT DETAIL**

**NOTE:**

1. USE CLASS "B" CONCRETE.

APPROVED BY:

*Gene T. Ginther*  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

3/13/07

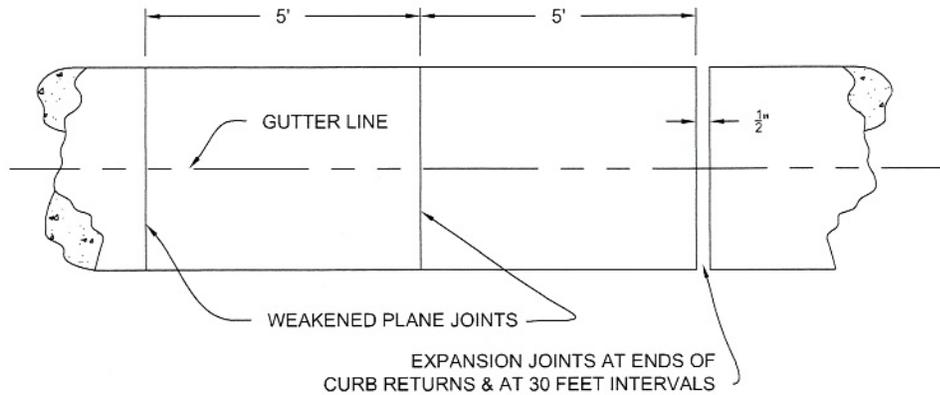
CITY OF  
 DESERT HOT SPRINGS

**STANDARD  
 24" CURB & GUTTER  
 PUBLIC STREETS**

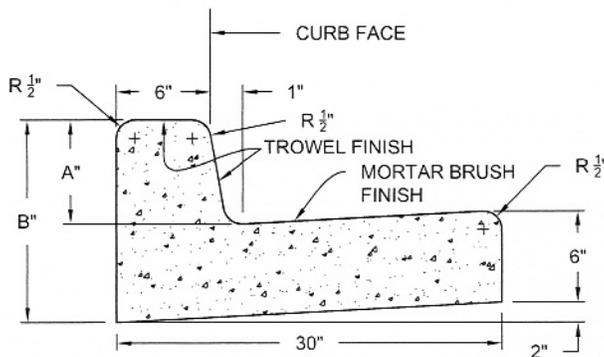
STANDARD NO. 200



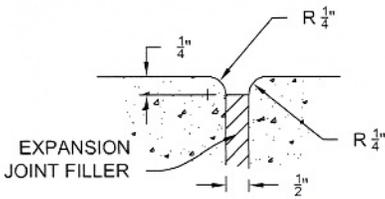
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



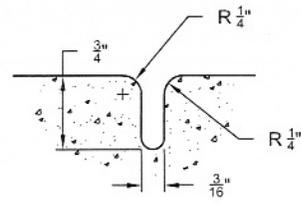
**ELEVATION DETAIL**



**X - SECTION**



**EXPANSION JOINT DETAIL**



**WEAKENED PLANE JOINT DETAIL**

DIM	6" CURB	8" CURB
A	6"	8"
B	12"	14"

**NOTE:**

1. USE CLASS "B" CONCRETE.

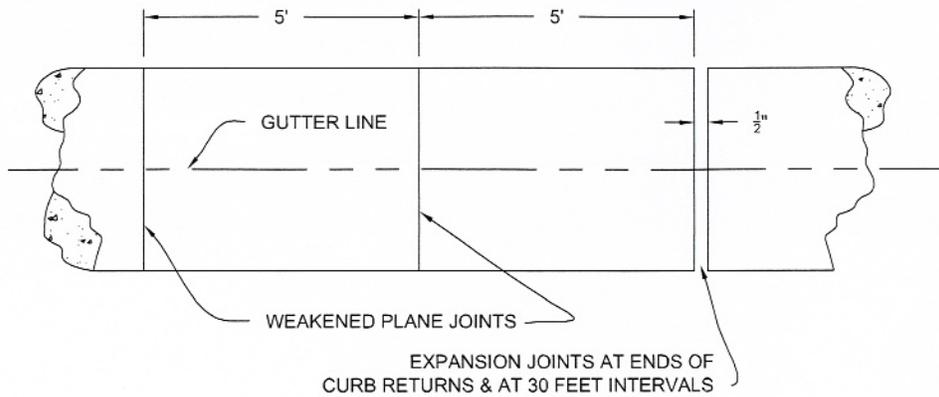
APPROVED BY: <i>[Signature]</i> 3/13/07				
GENE T. GINTHER CITY ENGINEER RCE 40429 EXP: 3/31/09				
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			

CITY OF  
DESERT HOT SPRINGS

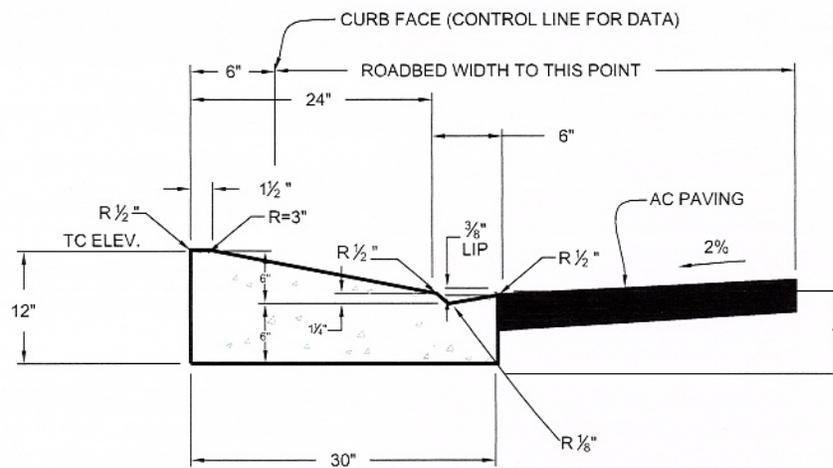
**STANDARD  
30" CURB & GUTTER  
PUBLIC STREETS**

STANDARD No. 201



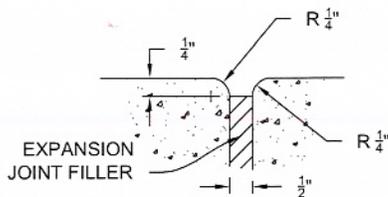


**ELEVATION DETAIL**

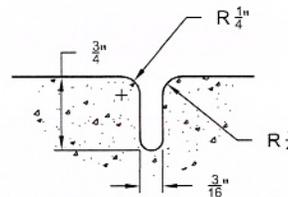


**WEDGE CURB DETAIL (PRIVATE STREETS ONLY)**

NTS



**EXPANSION JOINT DETAIL**



**WEAKENED PLANE JOINT DETAIL**

**NOTE:**

1. USE CLASS "B" CONCRETE.
2. FOR PRIVATE STREET CONSTRUCTION ONLY.

APPROVED BY:

*Gene T. Ginther* 3/19/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

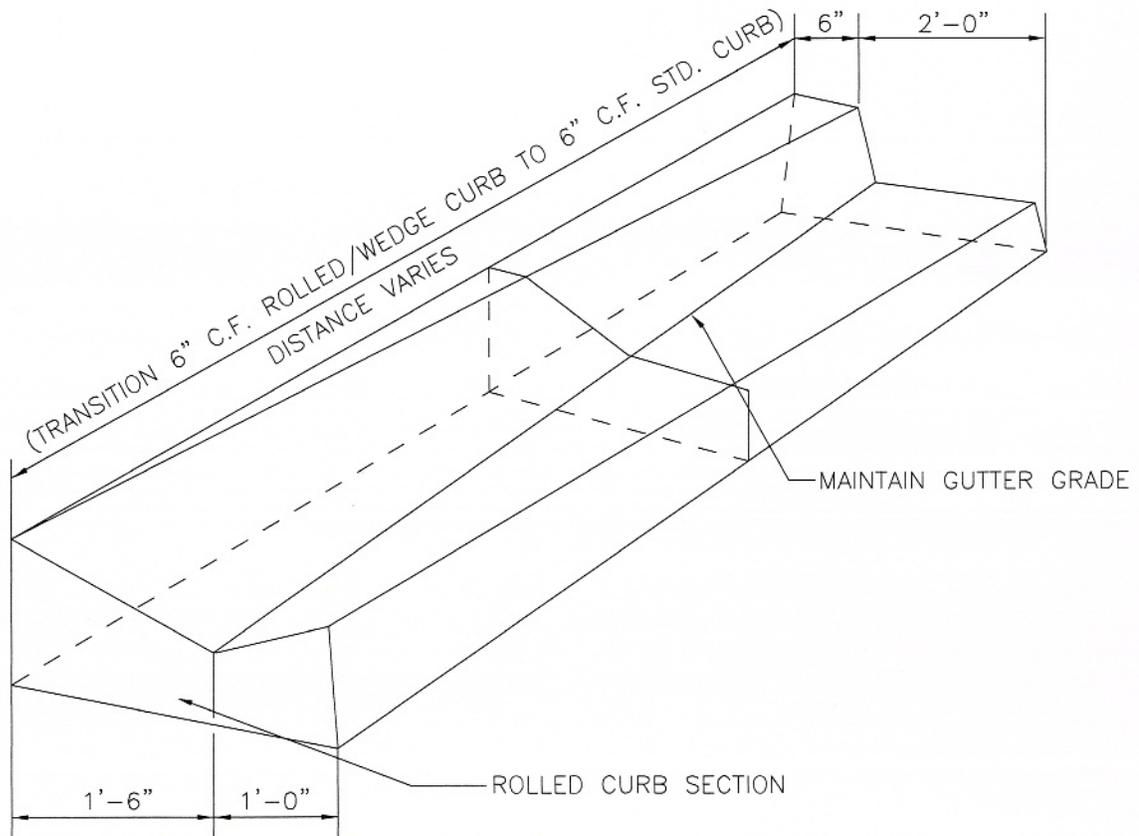
CITY OF  
DESERT HOT SPRINGS

**WEDGE CURB  
(PRIVATE STREETS)**



STANDARD No. 202

DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			



**NOTE:**

1. USE CLASS "B" CONCRETE.

APPROVED BY:

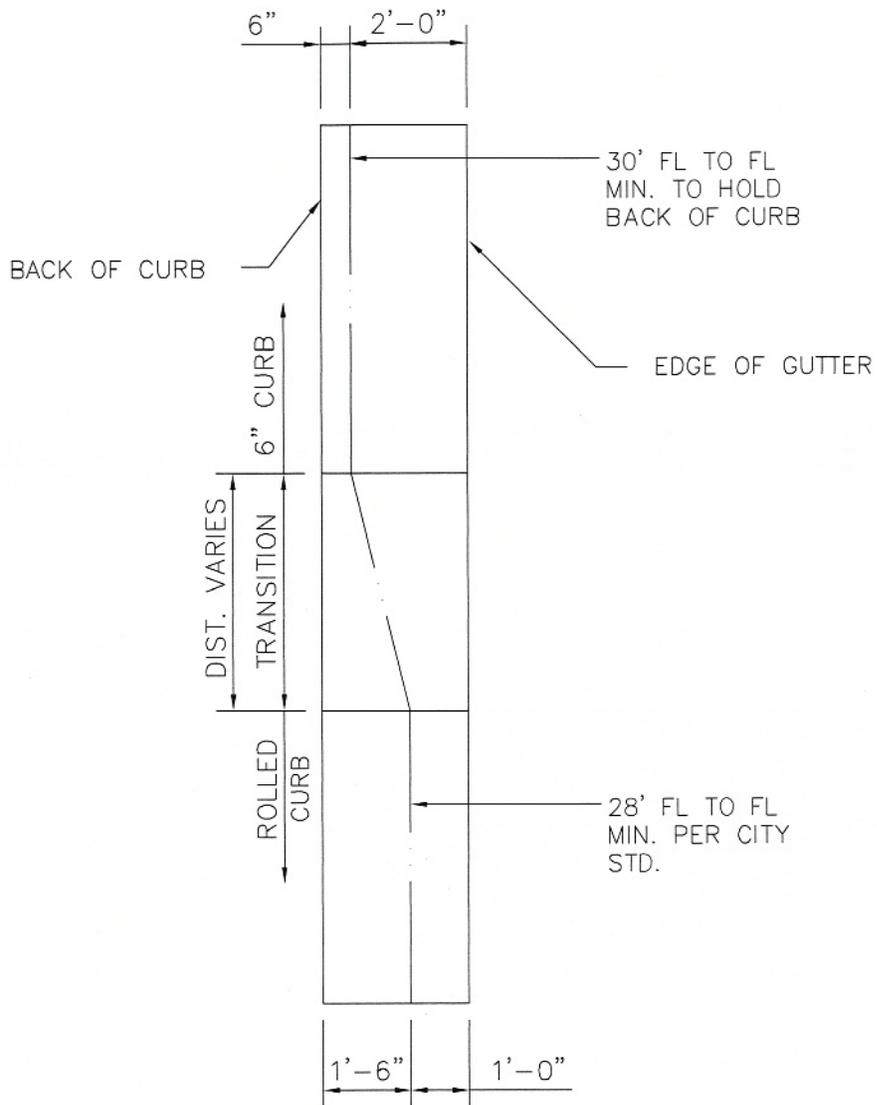
*Gene T. Ginther* 3/19/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS  
**ROLLED CURB /  
 WEDGE CURB  
 TO STRAIGHT CURB  
 TRANSITION**

STANDARD No. 203-1



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
SCALE: NONE	2			
SHEET 1 OF 2	3			



8 ROLLED/WEDGE CURB TRANSITION DETAIL  
NTS

**NOTE:**

- 1. USE CLASS "B" CONCRETE.

APPROVED BY:

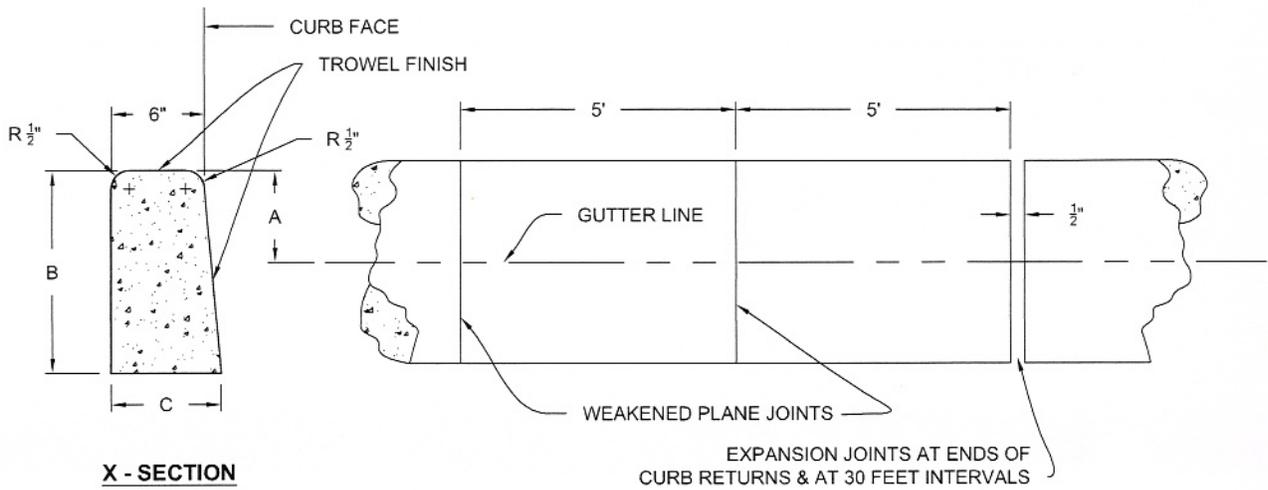
*Gene T. Ginther* 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS  
**ROLLED CURB /  
 WEDGE CURB  
 TO STRAIGHT CURB  
 TRANSITION**



STANDARD No. 203-2

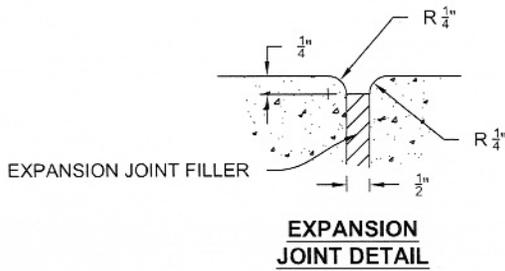
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
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	2			
	3			



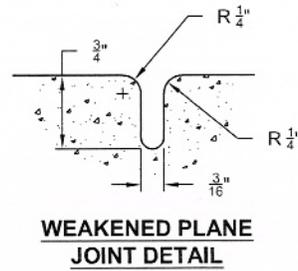
**X - SECTION**

EXPANSION JOINTS AT ENDS OF CURB RETURNS & AT 30 FEET INTERVALS

**ELEVATION DETAIL**



**EXPANSION JOINT DETAIL**



**WEAKENED PLANE JOINT DETAIL**

DIM	6" CURB	8" CURB
A	6"	8"
B	15"	17"
C	8"	8 1/4"

**NOTE:**

1. USE CLASS "B" CONCRETE.

APPROVED BY:

*Gene T. Ginther* 3/15/09  
 GENE T. GINTHER CITY ENGINEER  
 FCE 40429 EXP: 3/31/09

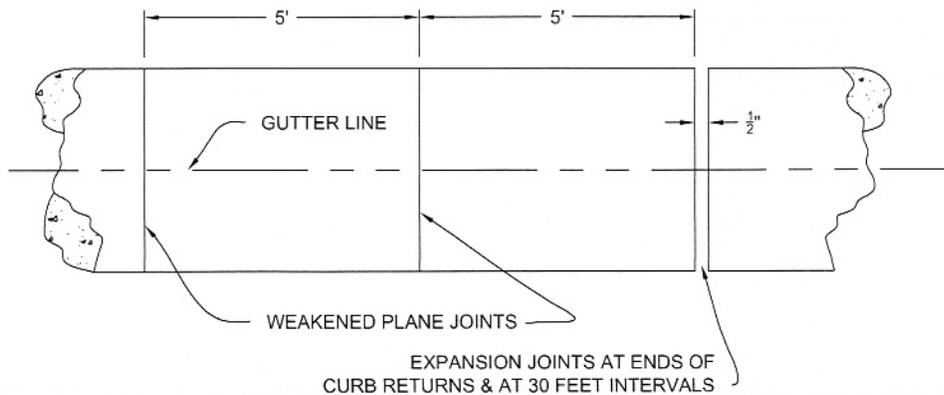
CITY OF  
 DESERT HOT SPRINGS

**STANDARD  
 STRAIGHT  
 FACE CURB**

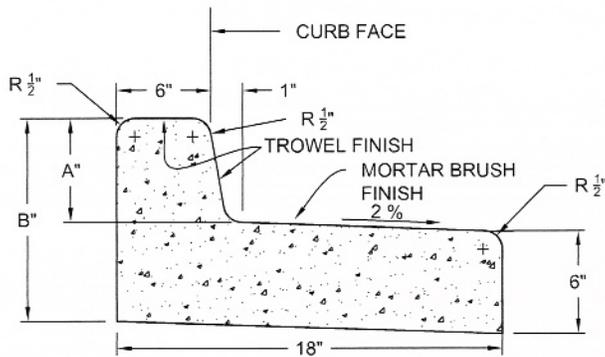
STANDARD No. 204



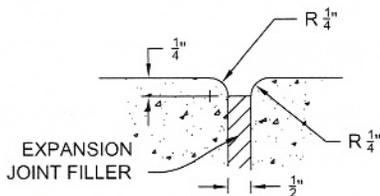
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DATE:	2			
SCALE: NONE	3			
SHEET 1 OF 1				



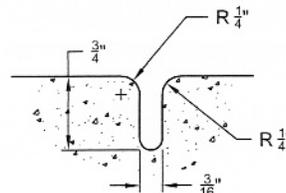
**ELEVATION DETAIL**



**X - SECTION**



**EXPANSION JOINT DETAIL**



**WEAKENED PLANE JOINT DETAIL**

DIM	6" CURB	8" CURB
A	6"	8"
B	12"	14"

**NOTE:**

1. USE CLASS "B" CONCRETE.

APPROVED BY:

*Gene T. Ginther* 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

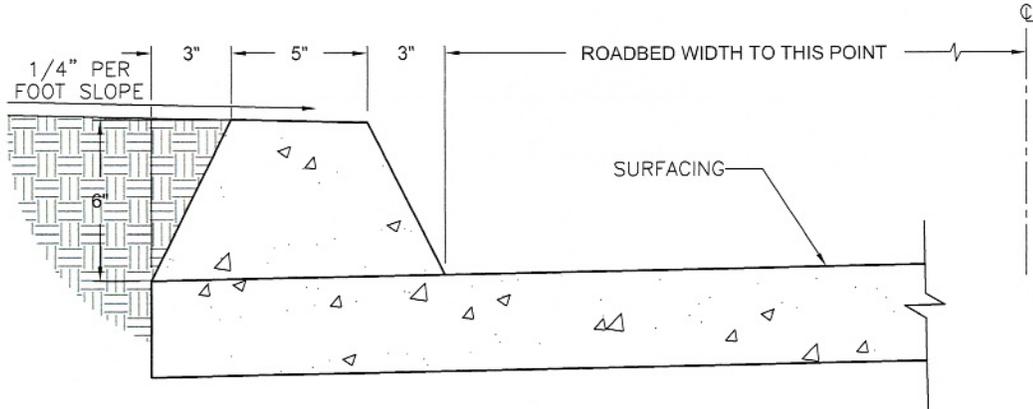
CITY OF  
DESERT HOT SPRINGS

**MEDIAN CURB  
PUBLIC STREETS**

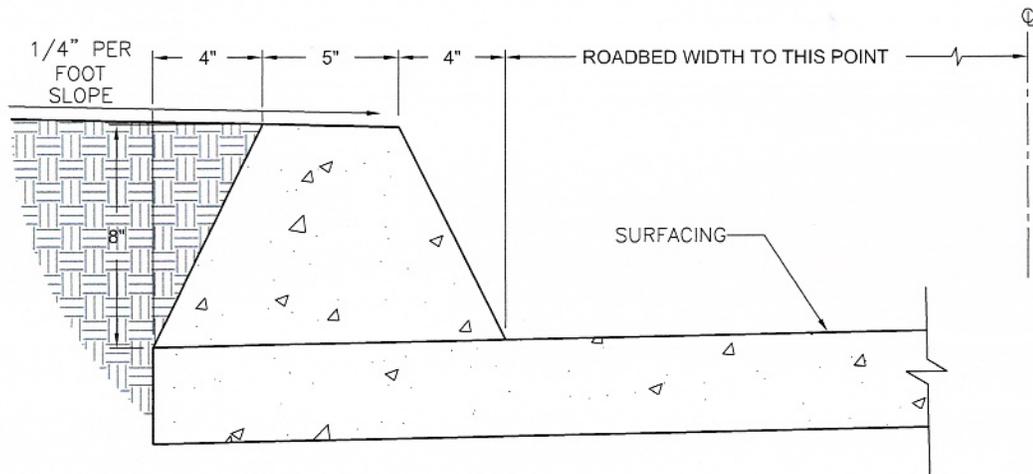
STANDARD No. 205



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	1			
DATE:	2			
SCALE: NONE	3			
SHEET 1 OF 1				



**6" A.C. DIKE**



**8" A.C. DIKE**

NOTE: A.C. DIKE REQUIRED WHERE FILL SLOPES ARE STEEPER THAN 4:1, MATERIAL IS SUSCEPTIBLE TO ERPSION, OR WHERE ROADWAY GRADIENT EXCEEDS 3%.

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
R/E 40429 EXP: 3/31/09

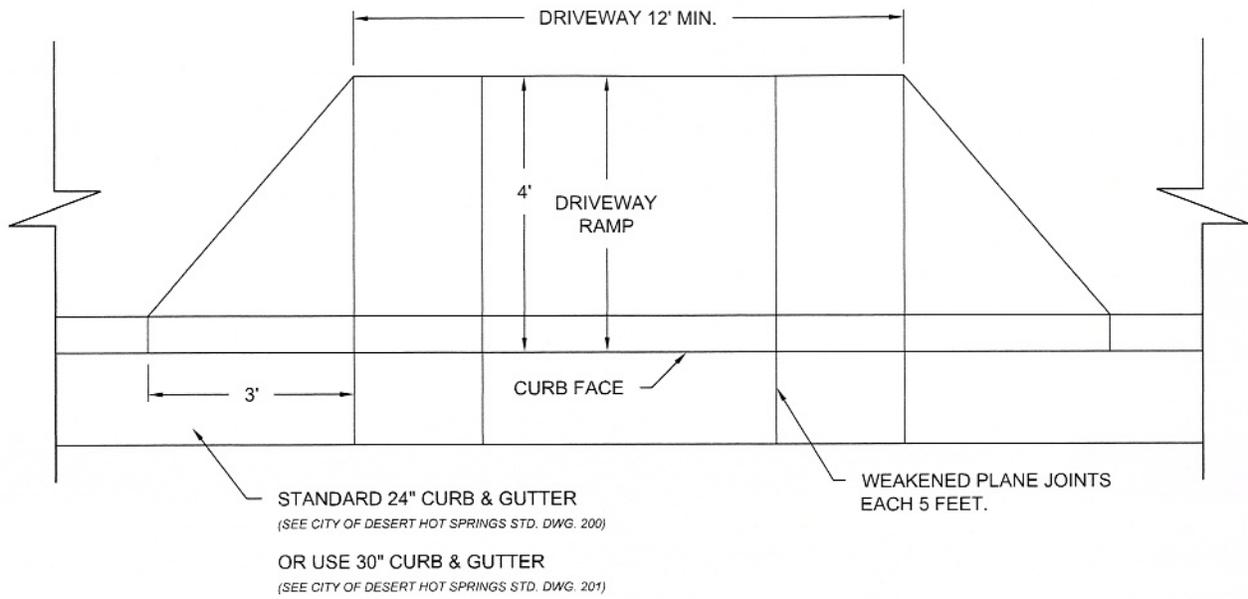
CITY OF  
DESERT HOT SPRINGS

ASPHALT  
BERM

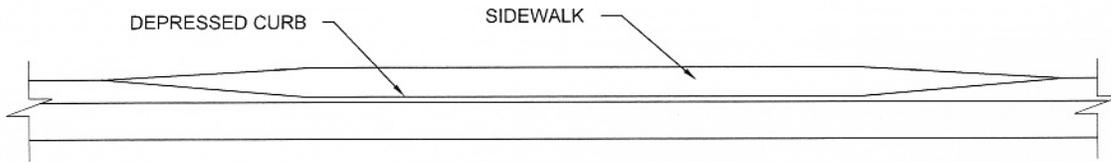
STANDARD No. 206



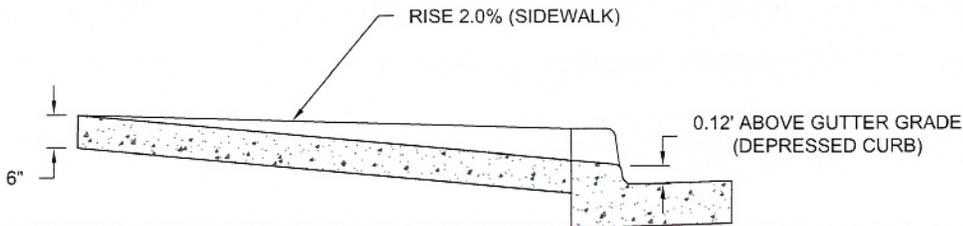
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SCALE: NONE	2			
SHEET 1 OF 1	3			



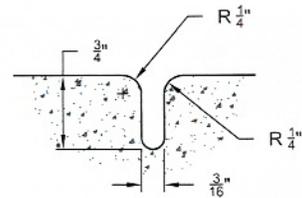
**PLAN VIEW**



**ELEVATION VIEW**



**CROSS SECTION**



**WEAKENED PLANE JOINT DETAIL**

**NOTES:**

1. MATERIAL & WORKMANSHIP TO CONFORM WITH CITY OF DESERT HOT SPRINGS STANDARDS.
2. USE CLASS "B" CONCRETE.
3. CONCRETE TO RECEIVE A LIGHT BROOM FINISH.

APPROVED BY:

*Gene T. Ginther* 3/15/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

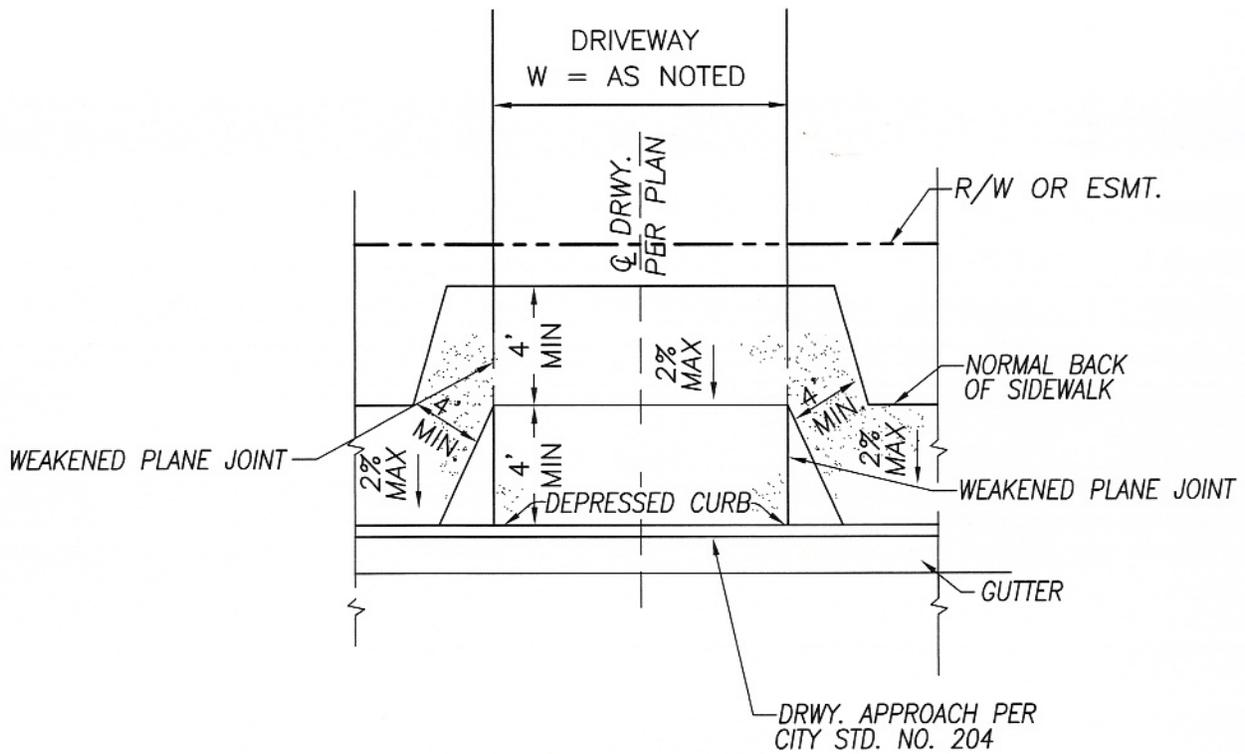
CITY OF  
DESERT HOT SPRINGS

STANDARD  
DRIVE WAY  
RESIDENTIAL AREA

STANDARD No. 207



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
DATE:	2			
SCALE: NONE	3			
SHEET 1 OF 1				



APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

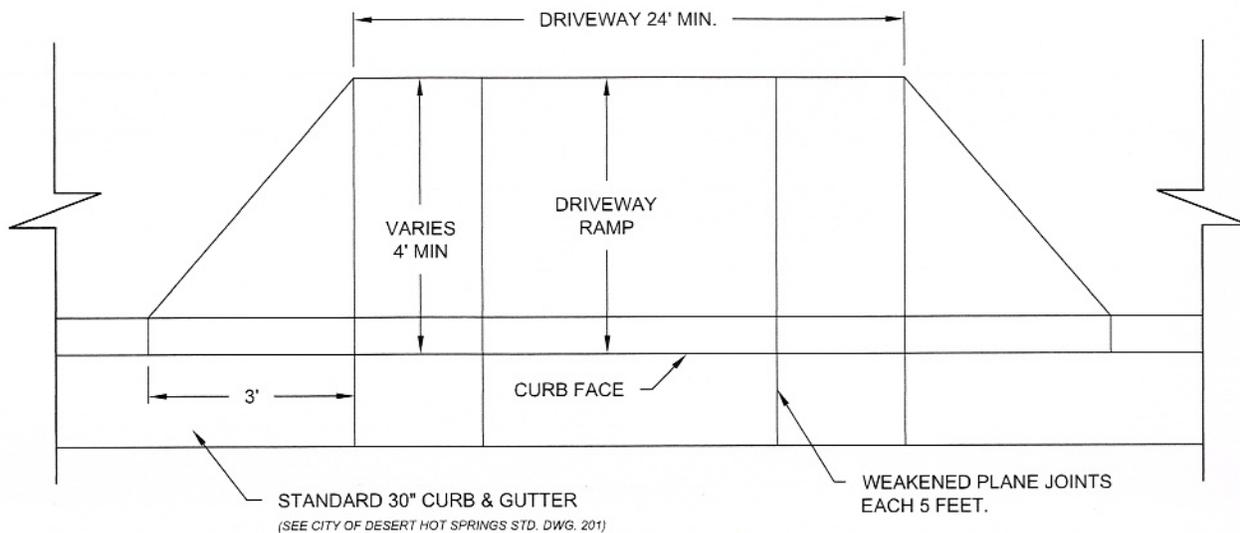
CITY OF  
DESERT HOT SPRINGS

A.D.A. COMPATIBLE  
DRIVEWAY

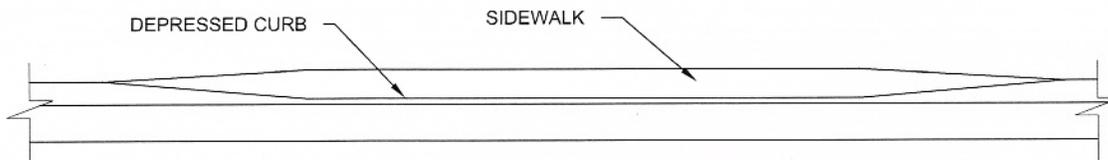
STANDARD No. 208



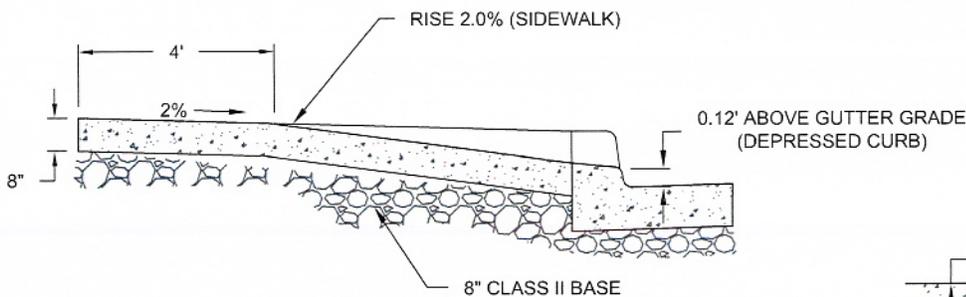
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DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



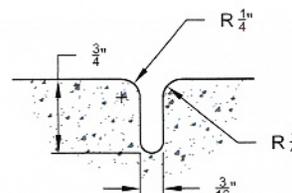
**PLAN VIEW**



**ELEVATION VIEW**



**CROSS SECTION**



**WEAKENED PLANE JOINT DETAIL**

**NOTES:**

1. MATERIAL & WORKMANSHIP TO CONFORM WITH CITY OF DESERT HOT SPRINGS STANDARDS.
2. USE CLASS "B" CONCRETE.
3. CONCRETE TO RECEIVE A LIGHT BROOM FINISH.

APPROVED BY:

GENE T. GINTER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

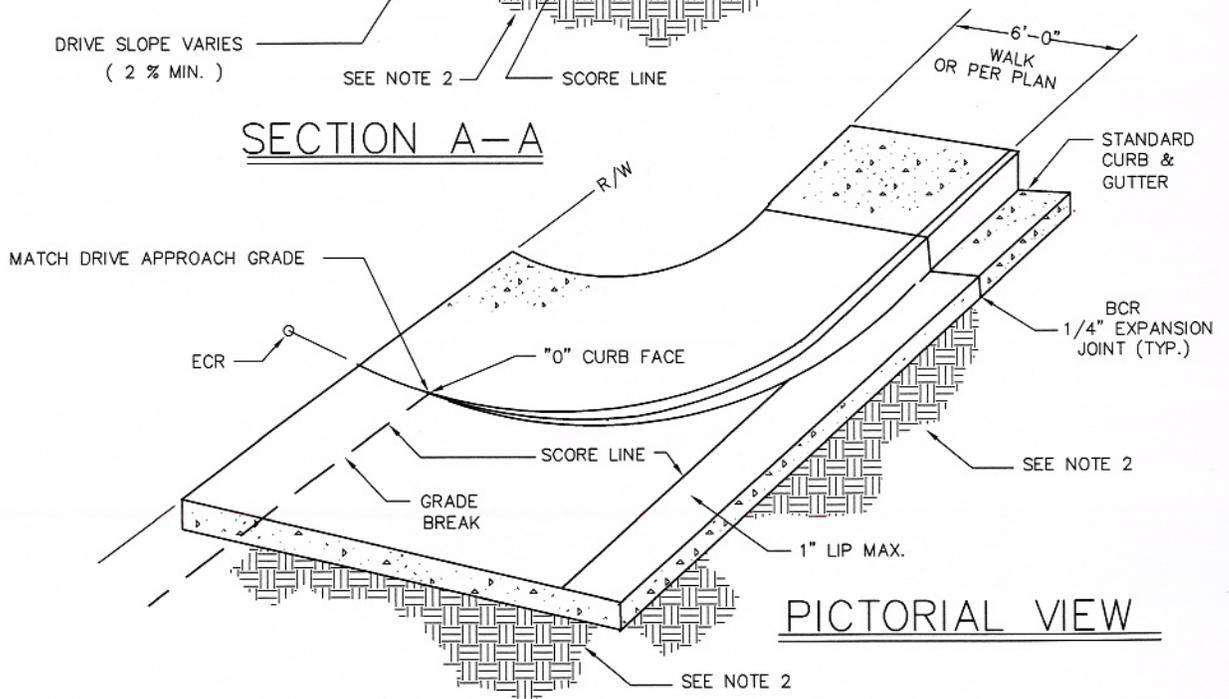
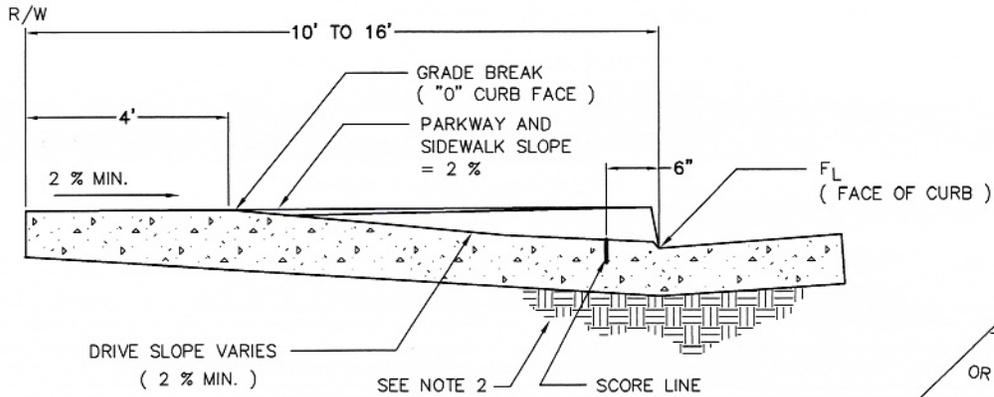
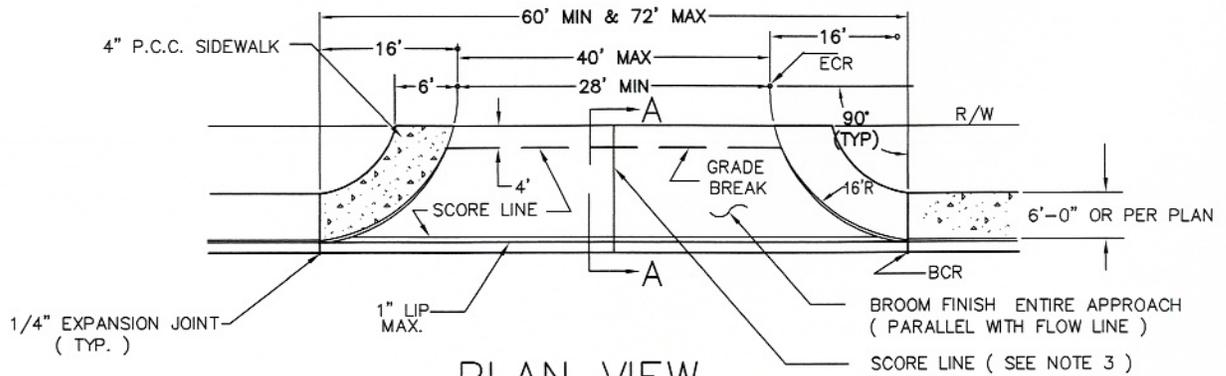
CITY OF  
DESERT HOT SPRINGS

**STANDARD  
DRIVE WAY  
COMMERCIAL AREA**

STANDARD No. 209



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



- NOTES:
1. DRIVE APPROACH SHALL BE 8" P.C.C., CLASS 520-C-2500, TYPE II OR IV.
  2. 90% RELATIVE COMPACTION ON SUB-GRADE UNDER DRIVE APPROACH.
  3. APPROACHES SHALL BE SCORED 1 1/2" DEEP AT CENTER OF APPROACH ALL OTHER SCORE LINES SHALL BE MAX. 10' SEPARATION.
  4. APPLY CLASS I OR II CURING COMPOUND (PER APWA STANDARD SPECIFICATIONS).

APPROVED BY:

*Gene T. Ginther*  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

3/19/07

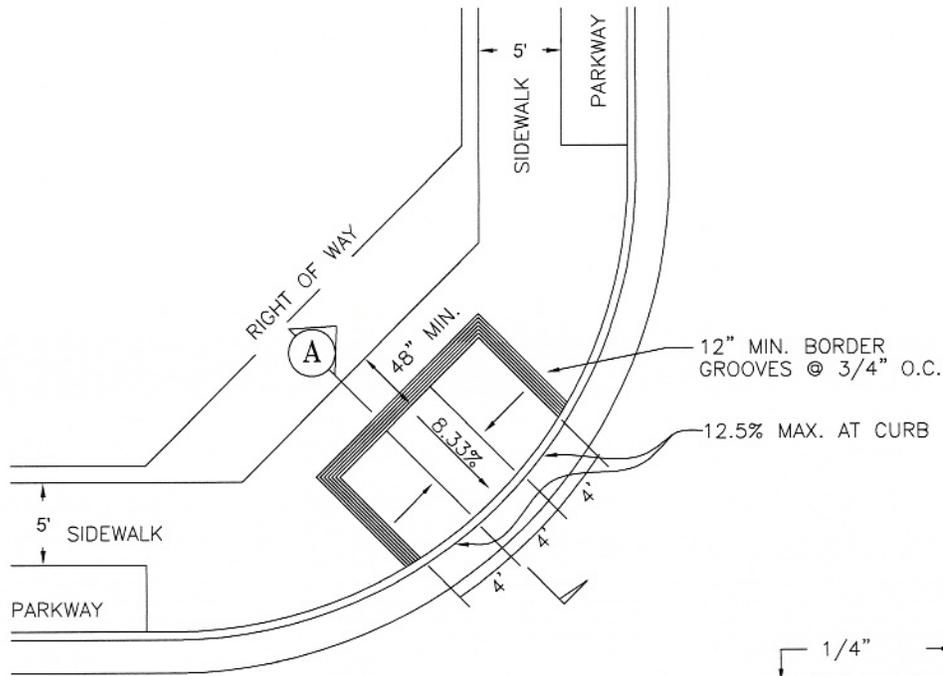
CITY OF  
 DESERT HOT SPRINGS

STANDARD  
 DRIVE WAY  
 COMMERCIAL AREA

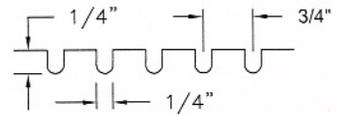
STANDARD No. 210



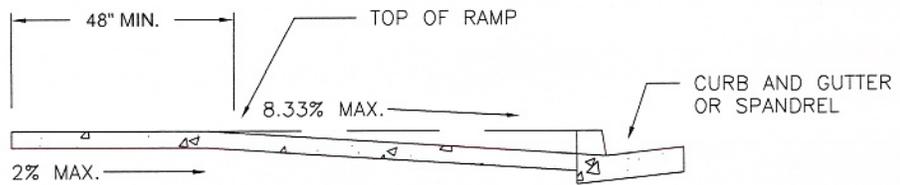
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			



**PLAN VIEW**



**GROOVING DETAIL**



**SECTION A - A**

APPROVED BY:

*Gene T. Gintner* 3/13/07

GENE T. GINTNER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

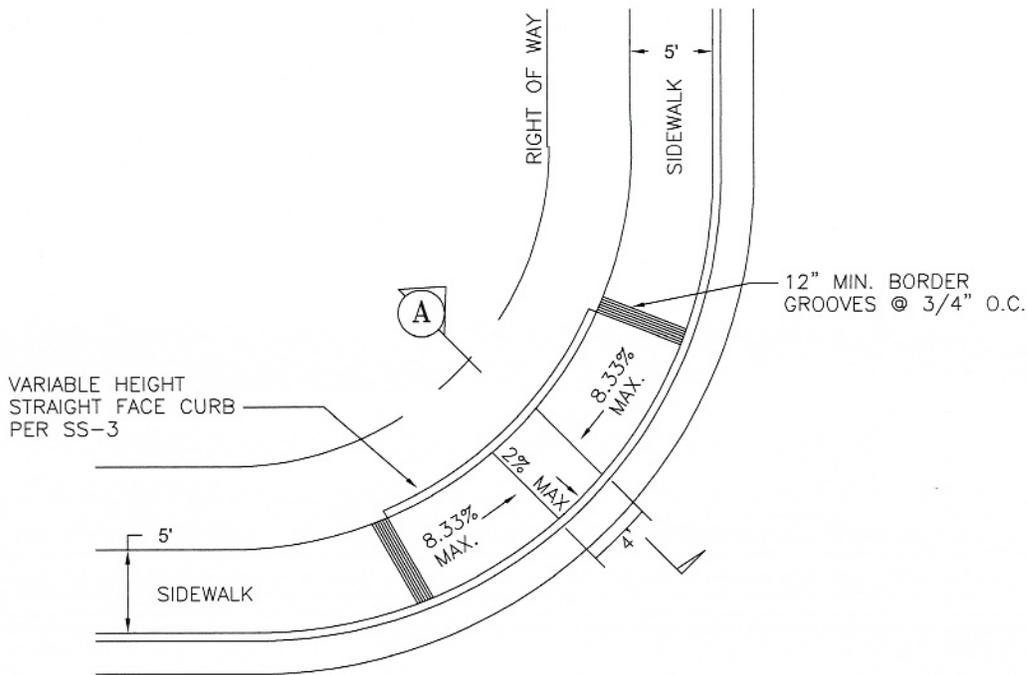
CITY OF  
DESERT HOT SPRINGS

ADA  
CURB RAMP

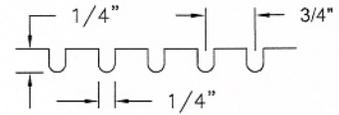
STANDARD No. 211



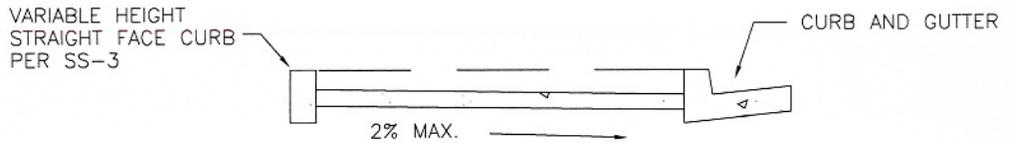
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



**PLAN VIEW**



**GROOVING DETAIL**



**SECTION A - A**

APPROVED BY:

*Gene T. Ginther* 3/13/07  
**GENE T. GINTHER** CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

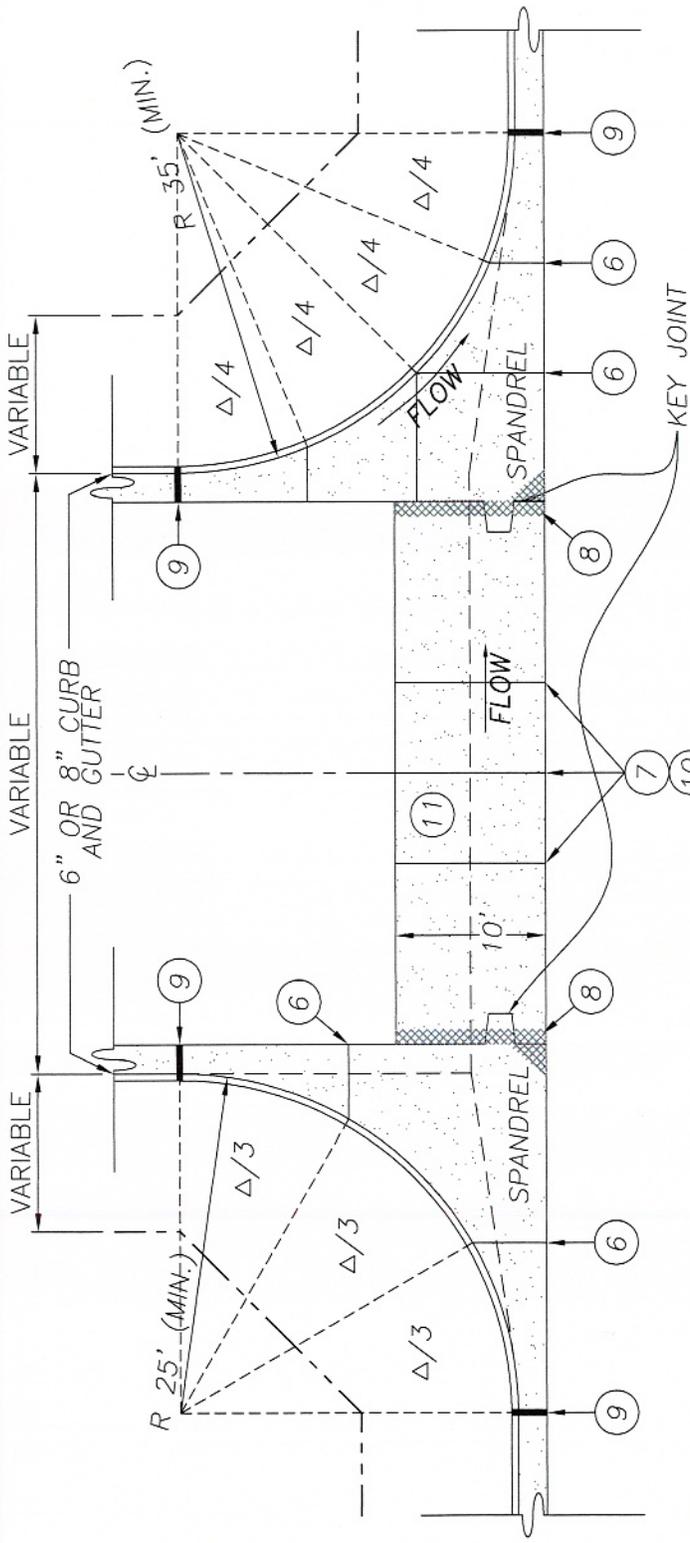
CITY OF  
 DESERT HOT SPRINGS

**ADA  
 CURB RAMP**



STANDARD No. 212

DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



- 1 CROSS GUTTER FOR USE WITH STANDARD 6" OR 8" CURB & GUTTER.
- 2 APRON THICKNESS TO BE 6" MINIMUM.
- 3 CROSS GUTTER THICKNESS TO BE 6" MINIMUM.
- 4 CLASS "B" CONCRETE.
- 5 PLACE 6" BASE UNDER ENTIRE SPANDREL AREA.
- 6 WEAKENED PLANE JOINTS TO BE CONSTRUCTED AT 1/3 POINTS ON 25' RADIUS SPANDRELS, AND AT 1/4 POINTS ON 35' RADIUS SPANDRELS.
- 7 CONSTRUCT WEAKENED JOINT(S) AT MIDPOINT OF CROSS GUTTERS LESS THAN 40' LONG, OR AT 1/3 POINTS OF CROSS GUTTERS OF 40' OR LONGER.
- 8 THIS PORTION OF SPANDREL AND CROSS GUTTER TO HAVE AN ADDITIONAL 6" OF CLASS "B" CONCRETE.
- 9 CONSTRUCT EXPANSION JOINT.
- 10 CONSTRUCT WEAKENED PLANE JOINT.
- 11 CONSTRUCT CROSS GUTTER.

APPROVED BY: *[Signature]* 3/15/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

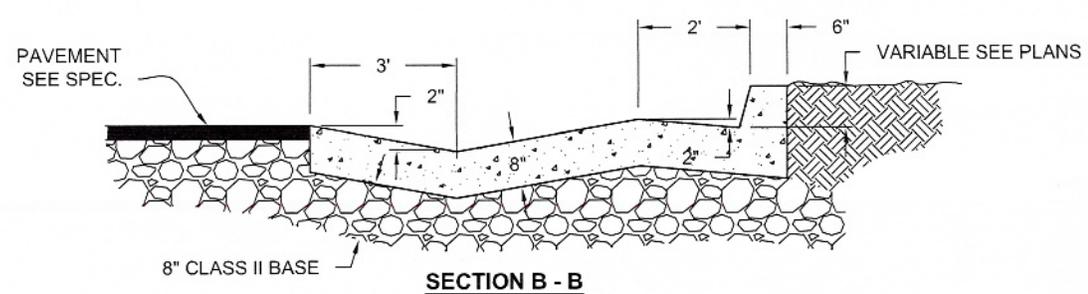
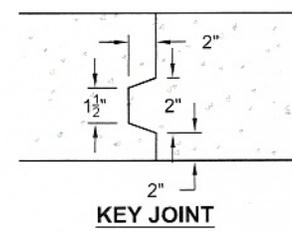
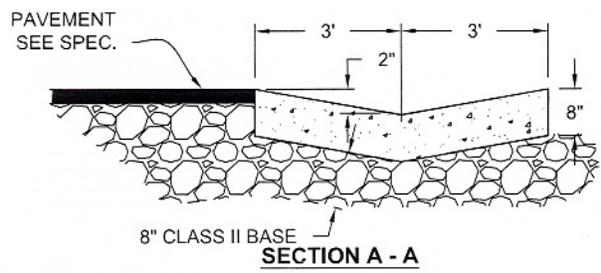
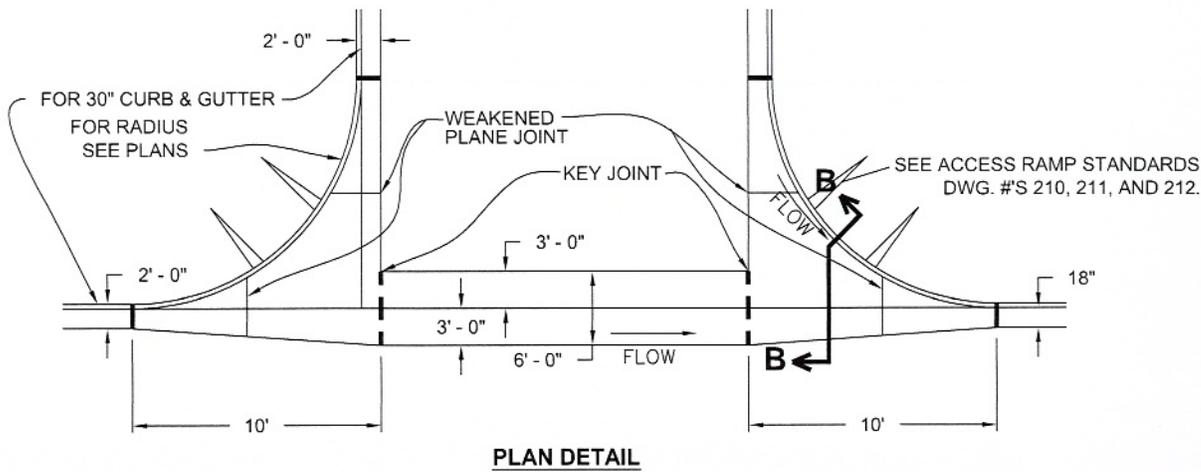
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SHEET 1 OF 1	3			

CITY OF  
DESERT HOT SPRINGS

**CROSS - GUTTER  
TYPE - 1**

STANDARD No. 213





- NOTES:**
1. USE CLASS " B " CONCRETE.
  2. CONCRETE TO RECEIVE A HEAVY BROOM FINISH.

APPROVED BY: *[Signature]* 3/13/07

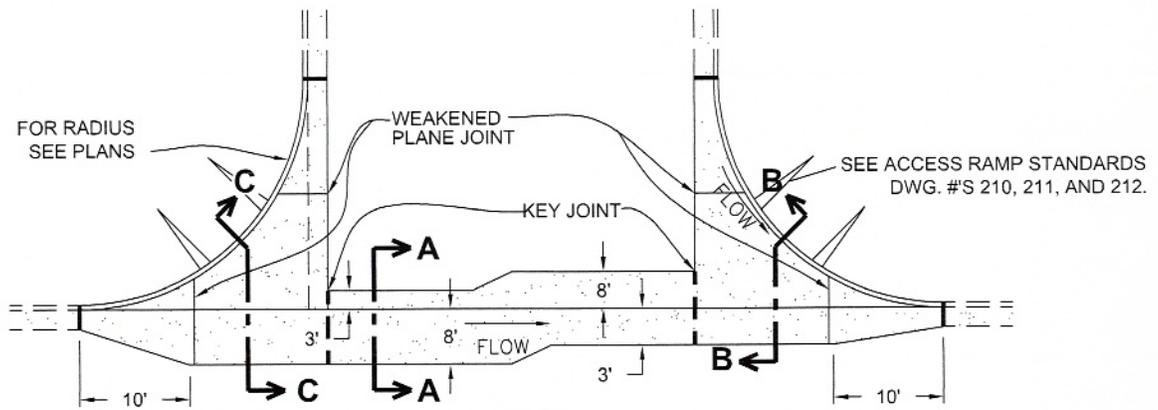
GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

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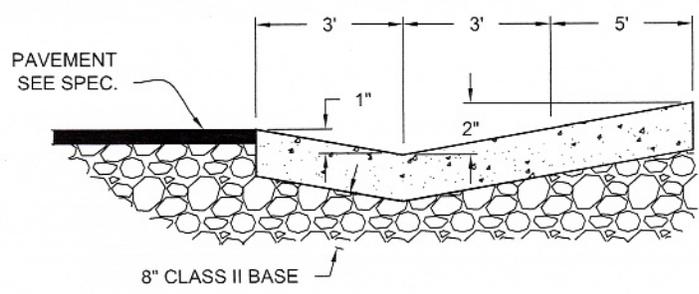
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SHEET 1 OF 1

CITY OF  
DESERT HOT SPRINGS  
**RESIDENTIAL  
CROSS - GUTTER  
TYPE - 2**  
FLOW GREATER THAN 2%  
**STANDARD No. 214**

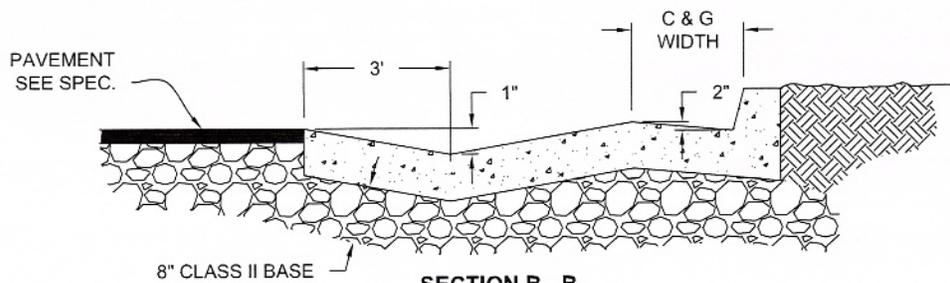
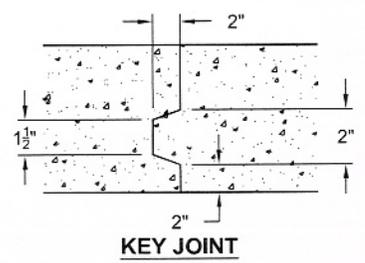




**PLAN DETAIL**



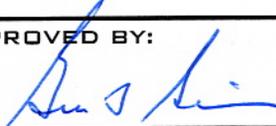
**SECTION A - A**



**SECTION B - B**  
 APPLIES WHERE FLOW LINE IS TO FOLLOW ALONG CURB LINE.

**NOTES:**

1. ALL MATERIAL & WORKMANSHIP TO CONFORM WITH CITY OF DESERT HOT SPRINGS STANDARDS.
2. USE CLASS "B" CONCRETE.
3. CONCRETE TO RECEIVE A HEAVY BROOM FINISH.

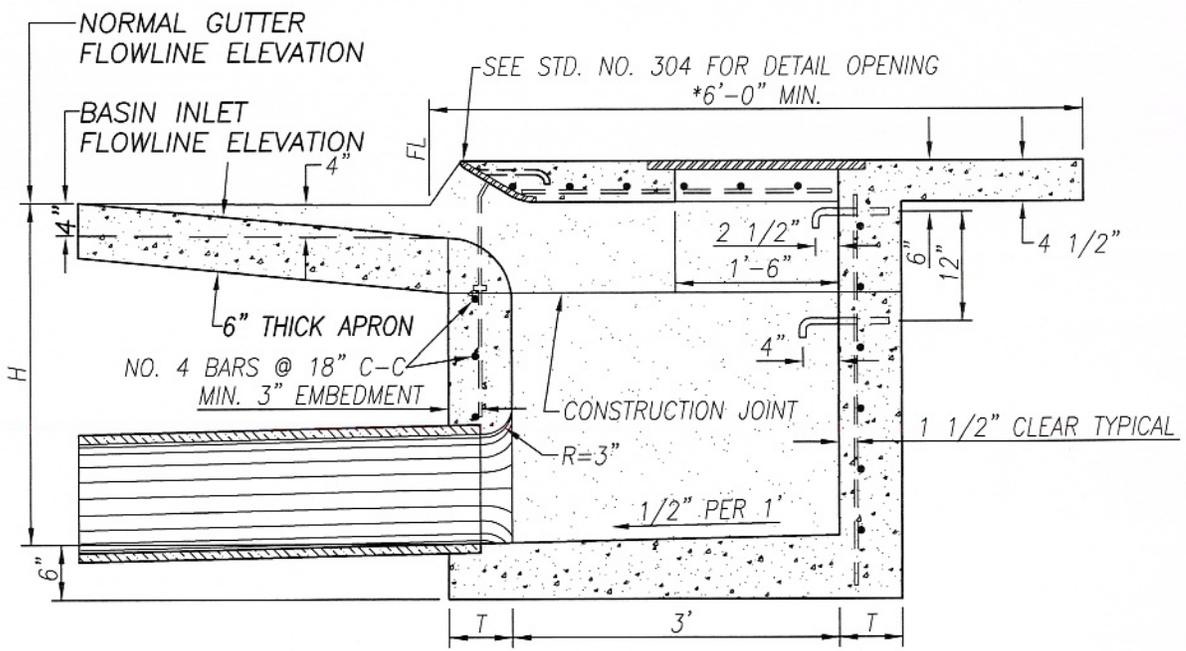
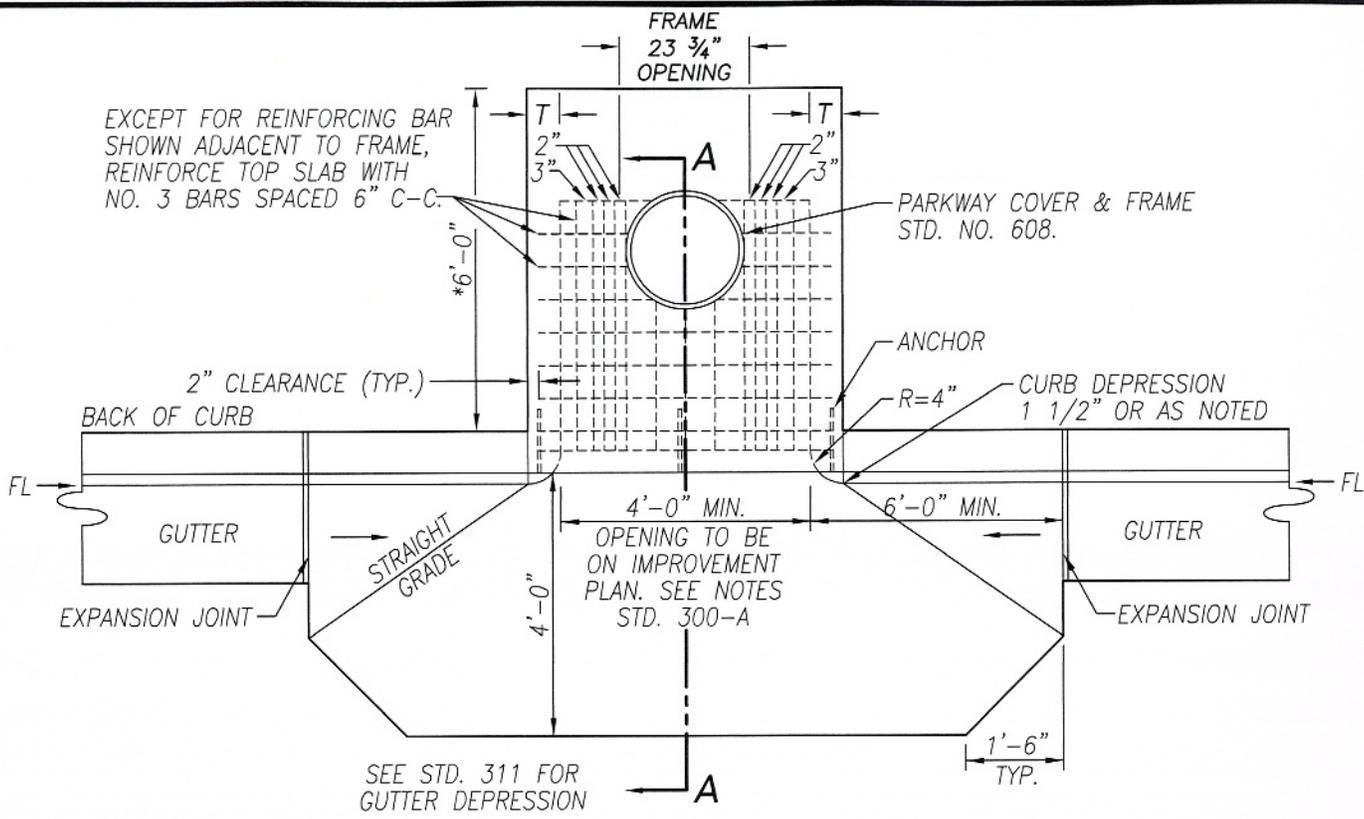
APPROVED BY:  
  
 3/19/07  
 GENE T. GINTNER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS  
**RESIDENTIAL  
 CROSS GUTTER  
 TYPE - 3**  
 FLOW LESS THAN 2%  
 STANDARD No. 215



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			

# **DRAINAGE**



**SECTION A-A**

CATCH BASIN SHALL BE CLASS "A" P.C.C.  
 \* TOP OF CATCH BASIN TO BE POURED MONOLITHIC WITH SIDEWALK, 6 FT.

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS

CURB INLET CATCH BASIN



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			

STANDARD No. 300-1 SHEET 1

CONNECTION PIPES MAY BE PLACED ANY POSITION AROUND THE WALLS, PROVIDED THEY POINT IN THE PROPER DIRECTION AND THE POSITION IS OTHERWISE CONSISTENT WITH THE IMPROVEMENT PLAN.

CURVATURE OF THE LIP AND SIDEWALLS AT GUTTER OPENING SHALL BE FORMED BY CURVED FORMS AND SHALL NOT BE MADE BY PLASTERING.

**DIMENSIONS:**

- T = 6" IF H IS 8 FEET OR LESS.
- T = 8" IF H IS GREATER THAN 8 FEET AND LESS THAN 20 FEET
- H = 3 FEET 6 INCHES, UNLESS OTHERWISE SPECIFIED.

FLOOR OF BASIN SHALL BE GIVEN A STEEL-TROWELLED FINISH.

MANHOLE SHALL BE PLACED AS SHOWN ON STANDARD NO. 300, UNLESS NOTED DIFFERENTLY ON IMPROVEMENT PLANS.

OUTLET PIPE SHALL BE TRIMMED TO THE FINAL SHAPE AND LENGTH BEFORE CONCRETE IS POURED.

OPENING SHALL BE 4'-0" UNLESS OTHERWISE SPECIFIED.

REINFORCING STEEL SHALL BE NO. 3 ROUND DEFORMED BARS IN TOP SLAB AND NO. 4 BARS AT 18" CENTERS IN THE SIDES OF BOX.

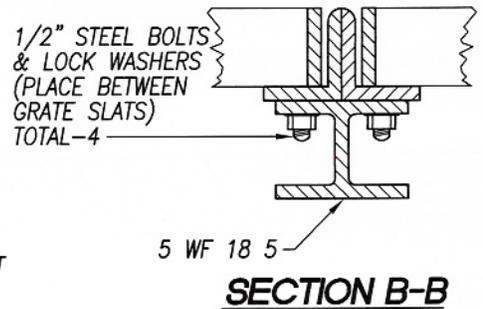
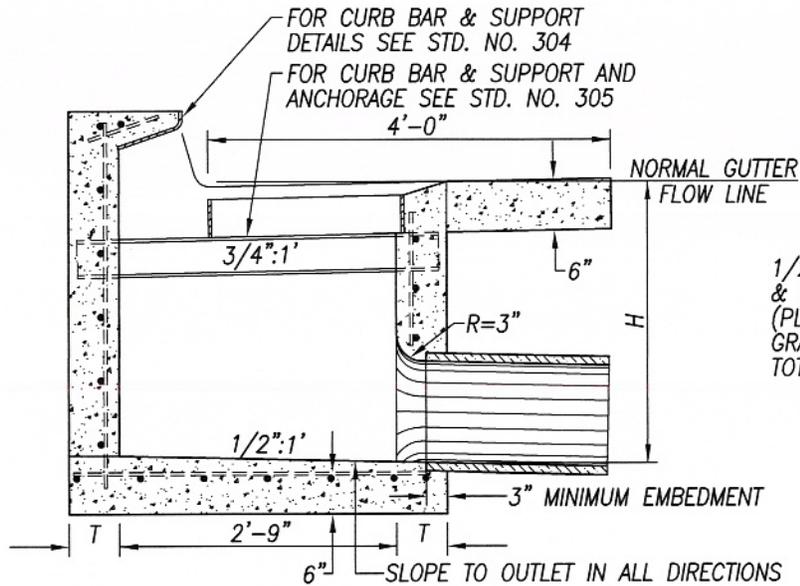
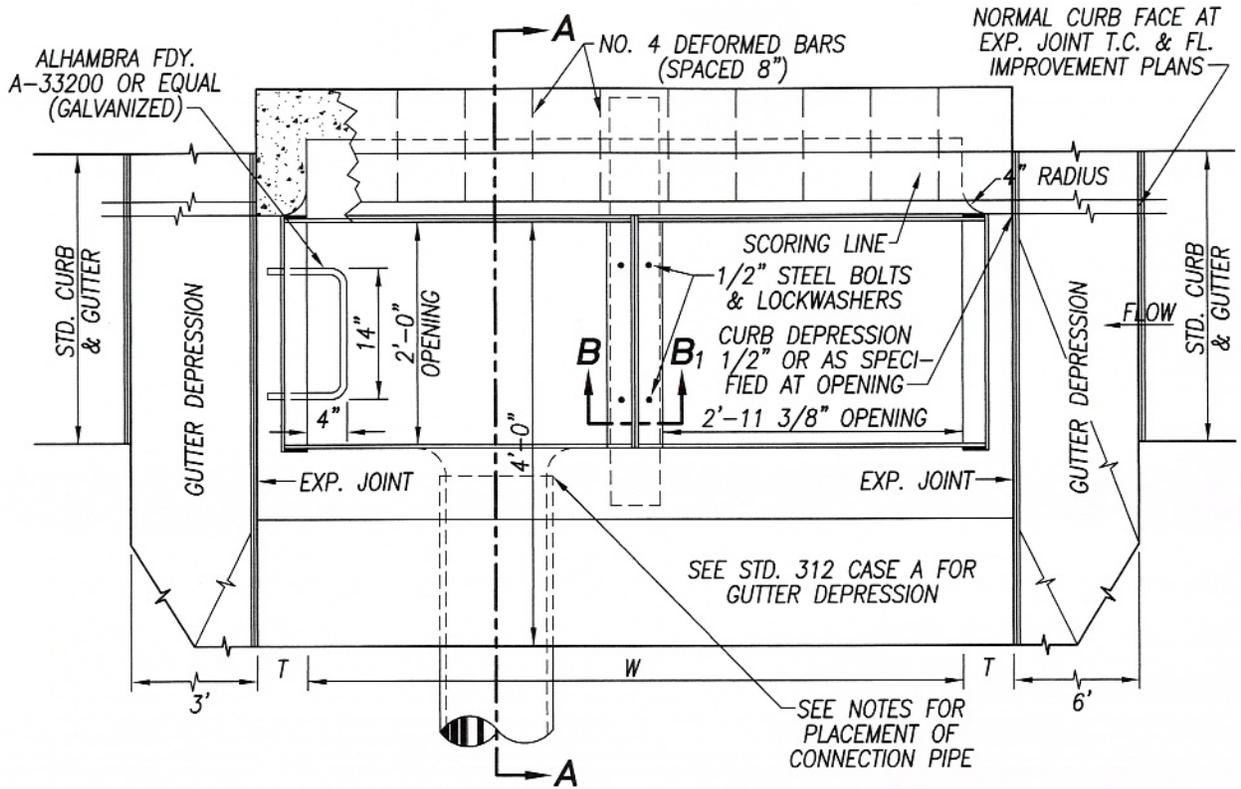
STEPS:  $\frac{3}{4}$  INCH PLAIN ROUND GALVANIZED STEEL STEPS (ALHAMBRA FDY. A-3320 OR EQUAL) ARE REQUIRED AS FOLLOWS:

- IF H IS 3.5 FEET OR LESS, NO STEPS ARE REQUIRED.
- IF H IS MORE THAN 3.5 FEET, AND NOT MORE THAN 5 FEET, INSTALL 1 STEP 16" ABOVE FLOOR OF BASIN.
- IF H IS MORE THAN 5 FEET, INSTALL STEPS 12 INCHES APART, WITH THE TOP STEP 6 INCHES BELOW THE SURFACE OF THE BASIN.
- ALL STEPS SHALL BE 4 INCHES FROM THE WALL, EXCEPT THE TOP STEP, WHICH SHALL BE 2  $\frac{1}{2}$  INCHES (CLEAR) FROM THE WALL, AND ANCHORED NOT LESS THAN 5 INCHES IN THE WALL OF THE BASIN.

SURFACE OF ALL EXPOSED CONCRETE IN BASIN SHALL CONFORM IN SLOPE, GRADE, COLOR, FINISH AND SCORING TO EXISTING OR PROPOSED CURB AND WALL ADJACENT TO THE BASIN.

CONCRETE SHALL BE CLASS "A" WHEN THE BASIN IS TO BE CONSTRUCTED WITHIN THE LIMITS OF A PROPOSED SIDEWALK OR IS CONTIGUOUS TO SUCH A SIDEWALK. THE TOP OF THE BASIN SHALL BE POURED MONOLITHIC WITH THE SIDEWALK, USING CLASS "A" CONCRETE IN THE SIDEWALK AND THE TOP OF THE CATCH BASIN FINISHED PER SIDEWALK STANDARDS.

APPROVED BY: 3/13/07 <b>GENE T. GINTHER CITY ENGINEER</b> RCE 40429 EXP: 3/31/09					<b>CITY OF DESERT HOT SPRINGS</b>																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">DRAWN BY:</th> <th style="width: 20%;">REVISIONS:</th> <th style="width: 10%;">BY:</th> <th style="width: 10%;">APR'D</th> <th style="width: 10%;">DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td style="text-align: center;">1</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td style="text-align: center;">2</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td style="text-align: center;">3</td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					DRAWN BY:	REVISIONS:		BY:	APR'D	DATE		1					2					3				<b>CURB INLET CATCH BASIN</b>	
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE																							
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">DATE:</td> <td style="width: 20%;">SCALE: NONE</td> <td style="width: 10%;">SHEET 2 OF 2</td> </tr> </table>					DATE:	SCALE: NONE	SHEET 2 OF 2	<b>STANDARD No. 300-2 SHEET 2</b>																			
DATE:	SCALE: NONE	SHEET 2 OF 2																									



**SECTION A-A**

CONCRETE SHALL BE CLASS "A" P.C.C.

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

COMBINATION INLET CATCH  
BASIN NO. 2



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DATE:	2			
SCALE: NONE	3			
SHEET 1 OF 2				

STANDARD No. 301-1 SHEET 1

**NOTES:**

BASIN SHALL HAVE ONE GRATING UNLESS OTHERWISE SPECIFIED ON IMPROVEMENT PLANS.

CONCRETE SHALL BE CLASS "A". WHEN THE BASIN IS TO BE CONSTRUCTED WITHIN THE LIMITS OF A PROPOSED SIDEWALK, OR IS CONTIGUOUS TO SUCH A SIDEWALK, THE TOP OF THE BASIN SHALL BE POURED MONOLITHIC WITH THE SIDEWALK, USING CLASS "A" CONCRETE IN THE SIDEWALK. THE TOP OF THE CATCH BASIN SHALL BE FINISHED PER SIDEWALK STANDARDS.

CONNECTION PIPES MAY BE PLACED IN ANY POSITION AROUND THE WALLS, PROVIDED THEY POINT IN THE PROPER DIRECTION AND THE POSITION IS OTHERWISE CONSISTENT WITH THE IMPROVEMENT PLAN.

CURBATURE OF THE END-WALLS AT CURB OPENING SHALL BE FORMED BY CURVED FORMS AND SHALL NOT BE MADE BY PLASTERING.

**DIMENSIONS:**

GRATE SHALL BE PARALLEL TO PLANE OF GUTTER SLOPE  $\frac{3}{4}$ " TO 1'-0".

T = 6 INCHS IF H IS 8 FEET OR LESS

T = 8 INCHES IF H IS GREATER THAN 8 FEET AND LESS THAN 20 FEET.

H = 3 FEET 6 INCHES, UNLESS OTHERWISE SPECIFIED ON IMPROVEMENT PLANS.

W = 2 FEET 11  $\frac{3}{8}$  INCHES FOR ONE GRATING. ADD 3 FEET 5  $\frac{3}{8}$  INCHES FOR EACH ADDITIONAL GRATING.

EXPOSED SURFACES OF THE CATCH BASIN SHALL CONFORM IN SLOPE, GRADE, COLOR, FINISH AND SCORING TO EXISTING IMPROVEMENTS ADJACENT TO THE BASIN. WHERE NO SIDEWALK EXISTS, THE TOP SHALL BE FINISHED TO CONFORM TO STANDARD SIDEWALK SLOPE AND FINISH. WHERE NO CURB EXISTS, THE BATTER OF EXPOSED END WALLS ABOVE THE STREET SURFACE SHALL CONFORM TO BATTER FOR STANDARD CURB.

FLOOR OF BASIN SHALL BE GIVEN A STEEL-TROWELLED FINISH.

OUTLET PIPE SHALL BE TRIMMED TO THE FINAL SHAPE AND LENGTH BEFORE CONCRETE IS POURED.

REINFORCING STEEL SHALL BE NO. 4 DEFORMED BARS. CLEARANCE SHALL BE 1  $\frac{1}{2}$  INCHES FROM INSIDE OF BOX. SPACING IS AS SHOWN IN TOP SLAB AND AT 18 INCH CENTERS IN SIDES OF BOX.

SLOPE OF FLOOR PARALLEL WITH CURB SHALL BE 1 IN 12 UNLESS OTHERWISE SPECIFIED. SLOPE FLOOR FROM ALL DIRECTIONS TO THE OUTLET.

STEPS:  $\frac{3}{4}$  INCH PLAIN ROUND GALVANIZED STEEL STEPS (ALHAMBRA FDY. A-3320 OR EQUAL) ARE REQUIRED AS FOLLOWS:

IF H IS 3.5 FEET OR LESS, NO STEPS ARE REQUIRED.

IF H IS MORE THAN 3.5 FEET, AND NOT MORE THAN 5.0 FEET, INSTALL ONE STEP 16" ABOVE FLOOR OF BASIN.

IF H IS MORE THAN 5.0 FEET, INSTALL STEPS 12 INCHES APART, WITH THE TOP STEP 6" BELOW THE TOP OF GRATING.

ALL STEPS SHALL BE 4 INCHES CLEAR FROM THE WALL EXCEPT THE TOP STEP, WHICH SHALL BE 2  $\frac{1}{2}$  INCHES (CLEAR) FROM THE WALL AND ANCHORED NOT LESS THAN 5 INCHES IN WALL OF BASIN.

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

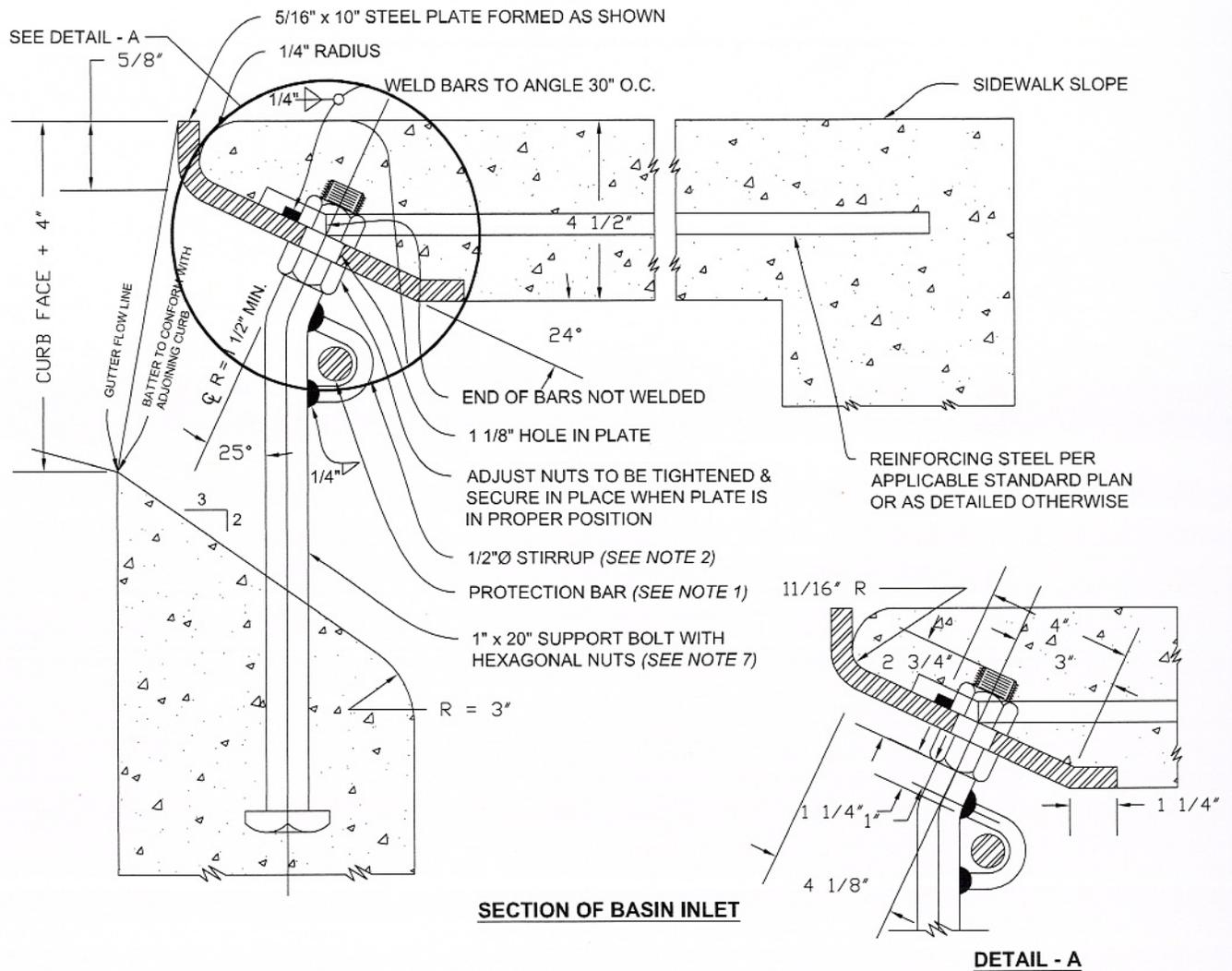
CITY OF  
DESERT HOT SPRINGS

COMBINATION INLET CATCH  
BASIN NO. 2



STANDARD No. 301-2 SHEET 2

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SHEET 2 OF 2	3			



**NOTE:**

1. WHEN CURB FACE EXCEEDS 8" A PLAIN ROUND STEEL PROTECTION BAR 1" IN DIAMETER SHALL BE INSTALLED. BAR SHALL BE EMBEDDED 5" AT EACH END.
2. A STIRRUP SHALL BE WELDED TO EACH BOLT WHEN A PROTECTION BAR IS REQUIRED.
3. T = 8" MIN. WHEN LENGTH OF OPENING EXCEEDS 7' - 0".
4. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED.
5. WHEN REQUIRED BY LENGTH OF OPENING, STEEL PLATE MAY BE DELIVERED IN SECTIONS AND BUTT WELDED IN PLACE. ALL GALVANIZING DAMAGED BY WELDING SHALL RECEIVE TWO COATS OF ALUMINUM PAINT.
6. SUPPORT BOLTS SHALL BE INSTALLED WHEN LENGTH OF OPENING EXCEEDS 7' - 0".

APPROVED BY:

*Gene T. Ginther* 3/13/09  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

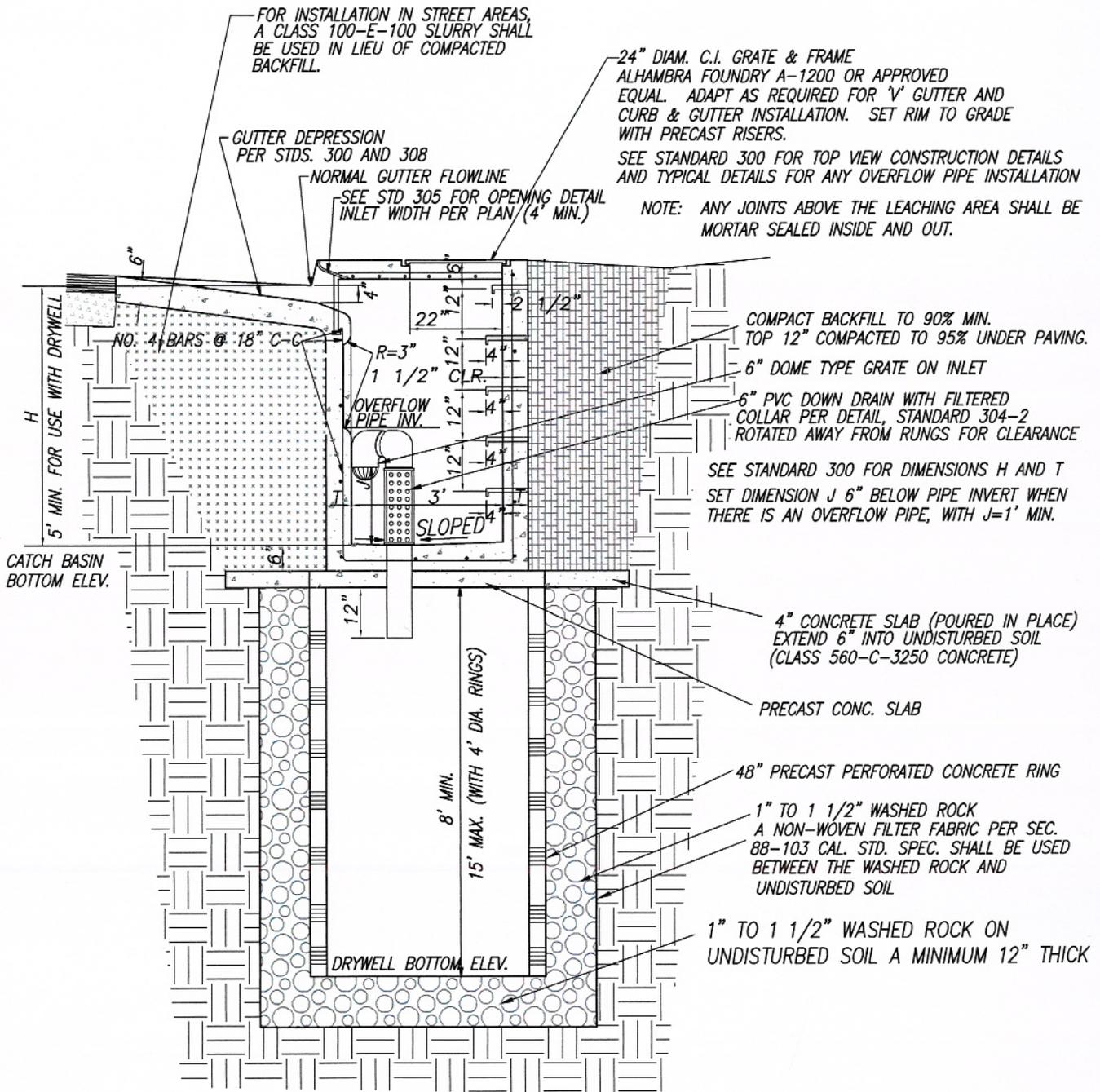
CITY OF  
 DESERT HOT SPRINGS

CATCH BASIN INLET

STANDARD No. 302



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SHEET 1 OF 1				



APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

COMBINATION CURB INLET  
CATCH BASIN / DRYWELL

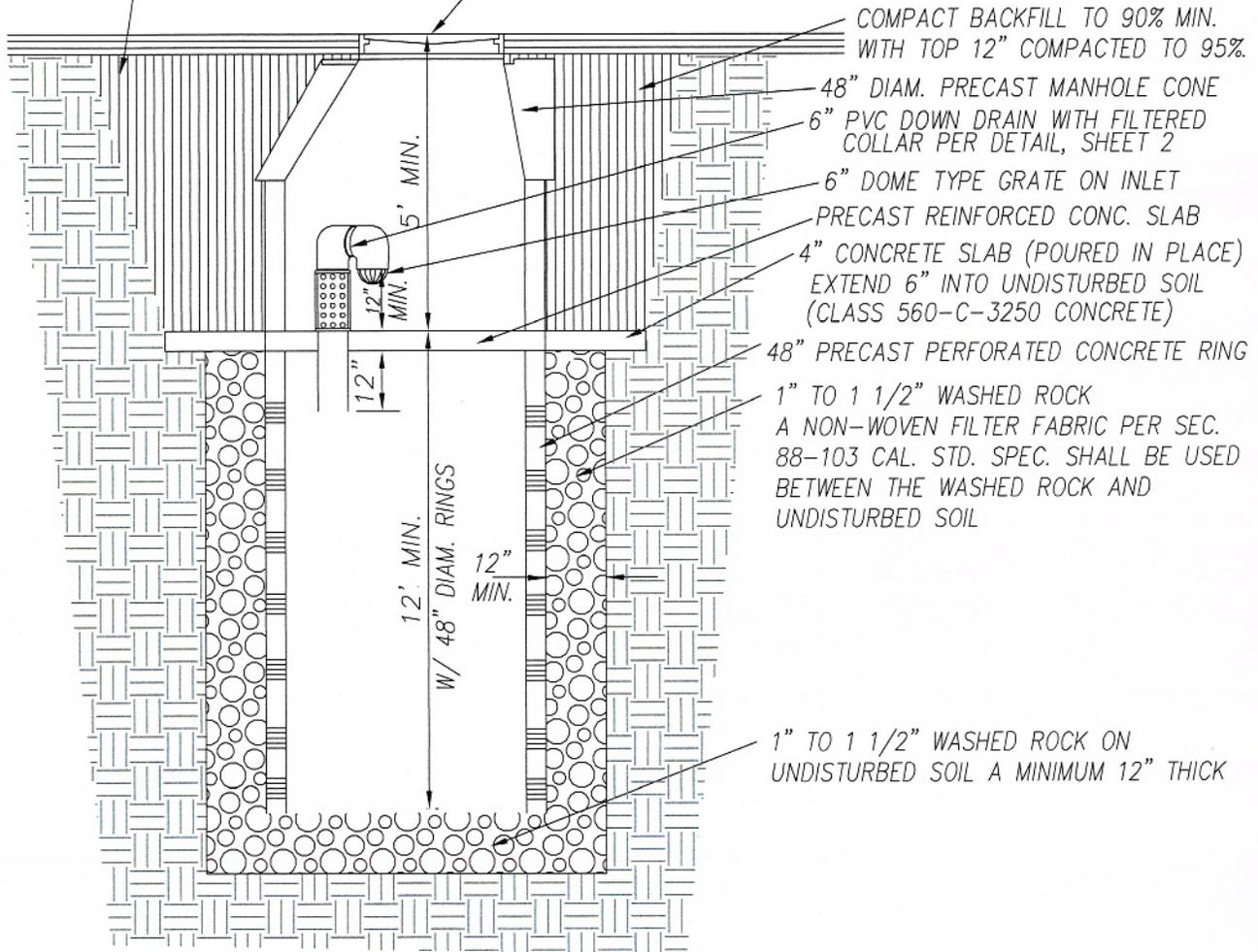


STANDARD No. 303

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SHEET 1 OF 1				

FOR INSTALLATION IN STREET AREAS, A CLASS 100-E-100 SLURRY SHALL BE USED IN LIEU OF COMPACTED BACKFILL. A MIN. 3" A.C. SHALL BE PLACED OVER SLURRY.

24" DIAM. C.I. GRATE & FRAME ALHAMBRA FOUNDRY A-1200 OR APPROVED EQUAL. ADAPT AS REQUIRED FOR 'V' GUTTER AND CURB & GUTTER INSTALLATION. SET RIM TO GRADE WITH PRECAST RISERS.



NOTES:

ALL JOINTS ABOVE THE LEACHING AREA SHALL BE MORTAR SEALED INSIDE AND OUT. MAX. PERCOLATION RATE = 2"/HR, THE SURFACE AREA FOR PERCOLATION MAY BE THE OUTSIDE AREA OF THE GRAVEL (6.5' DIAM. TYP.)

APPROVED BY:

*Gene T. Ginther*  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

3/13/07

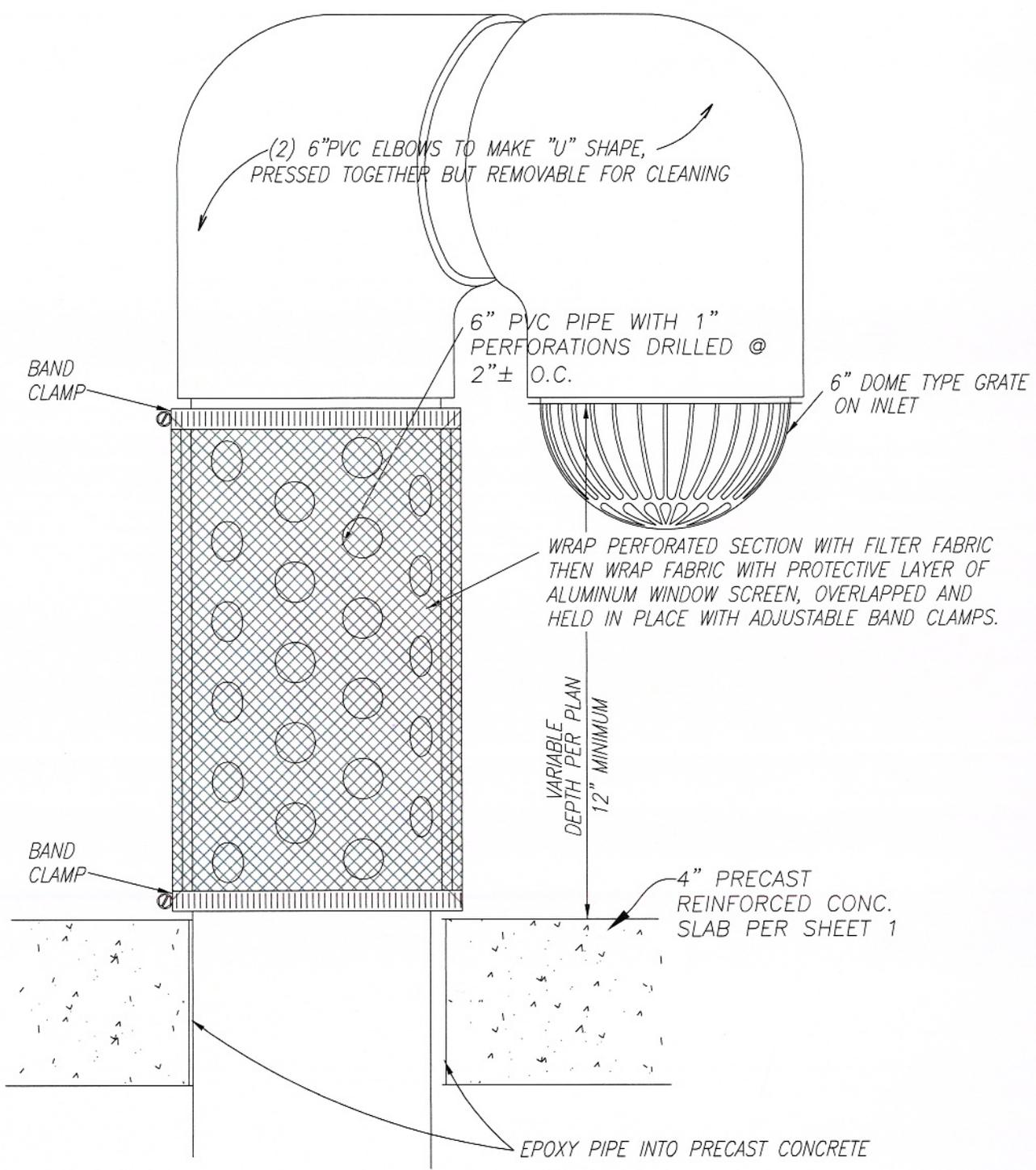
CITY OF  
 DESERT HOT SPRINGS

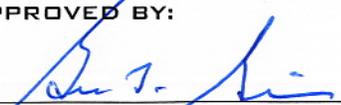
STANDARD  
 DRYWELL  
 SHEET 1 OF 2



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STANDARD No. 304-1 SHEET 1



APPROVED BY:  
  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

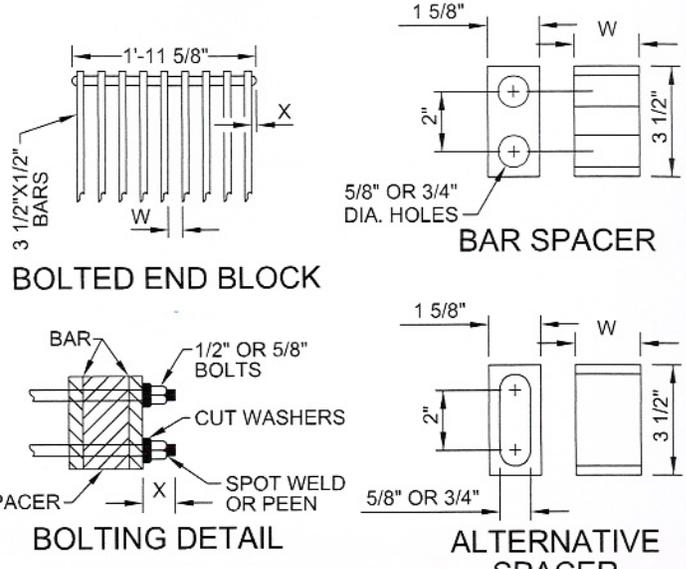
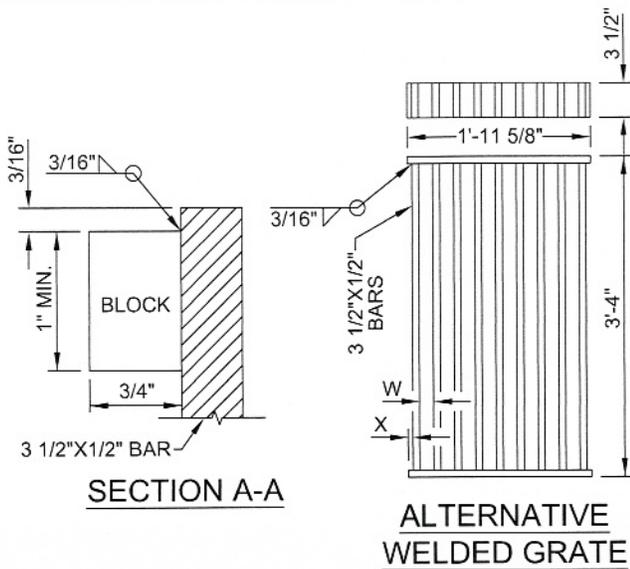
CITY OF  
 DESERT HOT SPRINGS

STANDARD  
 DRYWELL  
 SHEET 2 OF 2



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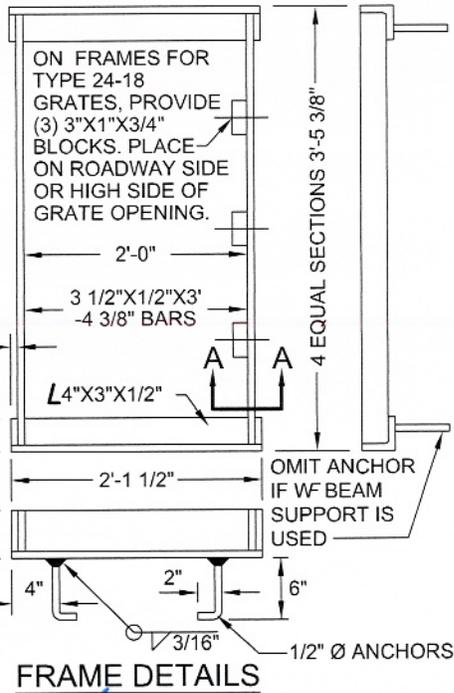
STANDARD No. 304-2 SHEET 2



**GRATE DETAILS**  
(SEE TABLE BELOW)

**ALTERNATIVE BOLTED GRATE**

TYPE	NO. BARS	"W"	"X"	USAGE
24-18	9	2"	1 9/16"	USE IN LOCATIONS OFF THE ROADBED ON ALL TYPES OF HIGHWAYS
24-18	12	1 3/8"	1 1/4"	USE WITHIN THE ROADBED ON HIGHWAYS WHERE BICYCLES AND PEDESTRIANS ARE EXCLUDED, OR FOR RURAL CONDITIONS.
24-18	18	3/4"	15/16"	USE WITHIN THE ROADBED UNDER URBAN CONDITIONS WHERE BICYCLES AND PEDESTRIANS ARE PERMITTED.



WEIGHTS		
TYPE	WELDED	BOLTED
24-9	200	230
24-9	258	286
24-9	372	400
24" FRAME	90	---

**GENERAL NOTES:**

- 1 GRATE TYPE NUMBERS REFER TO WIDTH OF GRATE IN INCHES AND NUMBER OF BARS RESPECTIVELY.
- 2 CONTRACTOR HAS THE OPTION OF USING WELDED OR BOLTED GRATES.
- 3 GRATES AND FRAMES TO BE PAINTED.
- 4 ROUNDED TOP OF BARS OPTIONAL ON ALL GRATES.
- 5 GRATE SHALL BE PLACED SO THAT BARS ARE PARRALEL TO DIRECTION OF PRINCIPAL SURFACE FLOW.

APPROVED BY: *[Signature]* 3/13/07  
**GENE T. GINTHER CITY ENGINEER**  
 RCE 40429 EXP: 3/31/09

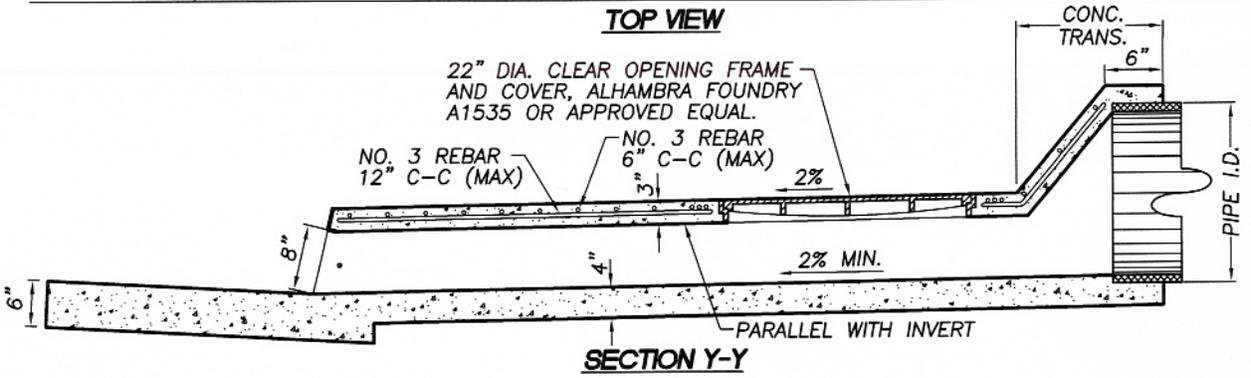
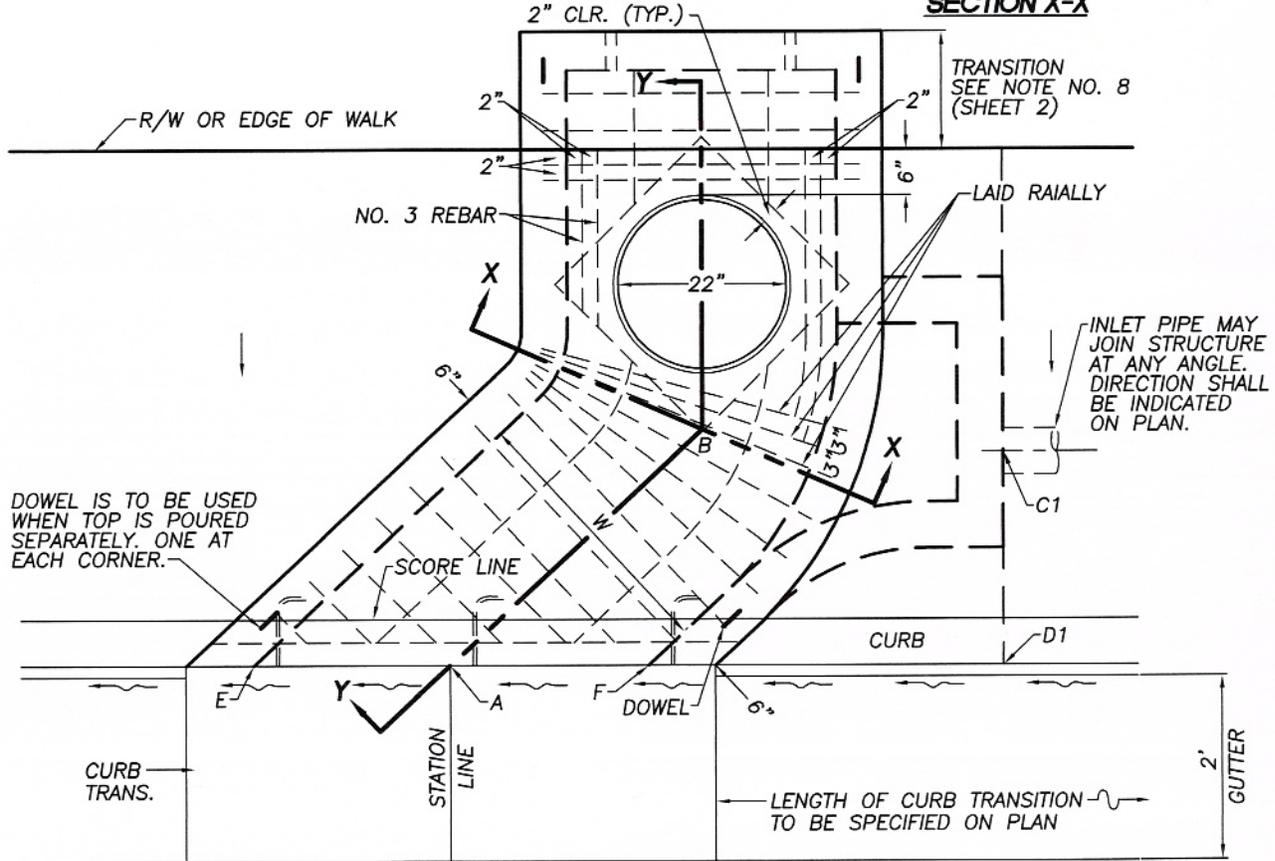
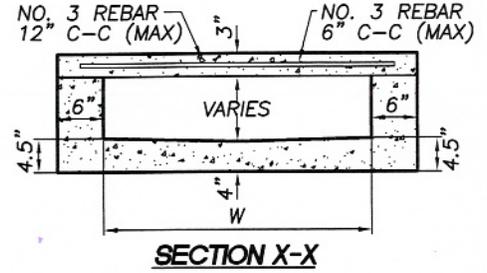
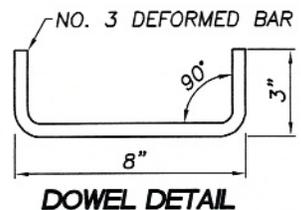
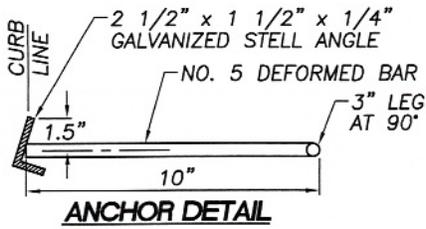
**CITY OF  
DESERT HOT SPRINGS**

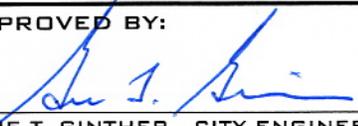
**GRATE AND  
FRAME DETAIL**

**STANDARD No. 305**



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DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



APPROVED BY:  
  
 3/13/07

GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

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CITY OF  
 DESERT HOT SPRINGS

CURB OUTLET

STANDARD No. 306-1 SHEET 1



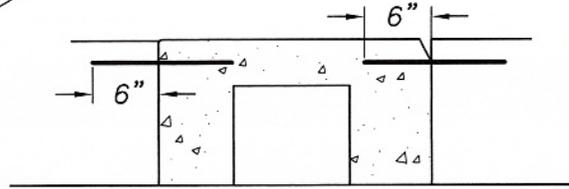
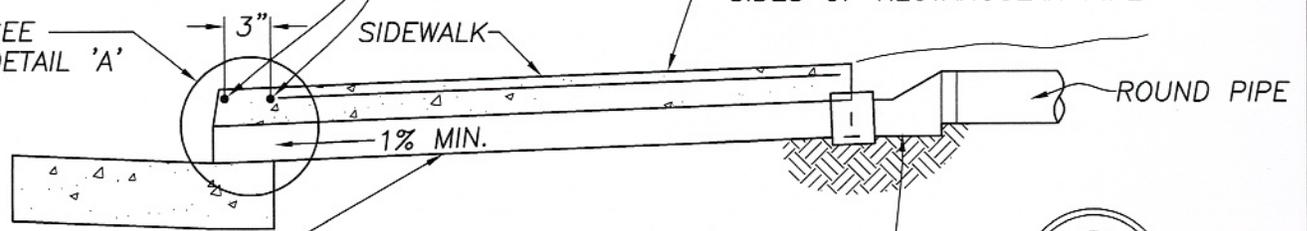
1. CONCRETE SHALL BE CLASS "A" WHEN STRUCTURE IS TO BE CONSTRUCTED WITHIN THE LIMITS OF A PROPOSED SIDEWALK OR IS CONTIGUOUS TO SUCH SIDEWALK, THE TOP OF THE STRUCTURE SHALL BE POURED MONOLITHIC WITH THE SIDEWALK, USING THE SAME CLASS OF CONCRETE AS IN THE SIDEWALK.
2. DIMENSIONS SHALL BE AS FOLLOWS UNLESS OTHERWISE SPECIFIED ON THE PLAN:  
 $A-B=5'$   
 $C_1-D_1=3'$   
 $E-F=5'$   
 $W=3'$
3. FLOOR OF STRUCTURE SHALL BE GIVEN A STEEL-TROWELED FINISH AND CONSTRUCTED ON A STRAIGHT GRADE FROM BACK OF STRUCTURE TO GUTTER FLOW-LINE AT POINT A. THE V-SECTION SPECIFIED FOR INVERT SHALL EXTEND FROM POPE OUTLET TO A POINT 3' FROM THE GUTTER, FROM WHICH POINT THE INVERT SHALL BE WARPED TO JOIN THE GUTTER FLOW-LINE AT THE STRUCTURE.
4. REINFORCING STEEL BARS SHALL BE 1" FROM BOTTOM OF THE SLAB.
5. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO THE STRUCTURE.
6. CORRUGATED METAL FORMS SHALL NOT BE USED FOR SUPPORTING THE TOP SLAB.
7. TOP OF STRUCTURE SHALL SLOPE 2% TOWARD CURB EXCEPT WHEN OTHERWISE SHOWN ON PLAN OR TO FIT EXISTING SIDEWALK.
8. TRANSITION FROM PIPE TO STRUCTURE, IF REQUIRED, TO BE IN BACK OF SIDEWALK. DIMENSIONS OF TRANSITION SHALL BE SPECIFIED ON THE PLAN.

APPROVED BY:  <span style="float: right; margin-left: 20px;">3/13/07</span>					<b>CITY OF DESERT HOT SPRINGS</b>		
GENE T. GINTHER CITY ENGINEER RCE 40429 EXP: 3/31/09					<b>COMBINATION INLET CATCH BASIN NO. 2</b>		
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE	<b>STANDARD NO. 306-2 SHEET 2</b>		
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SCALE: NONE	2						
SHEET 2 OF 2	3						

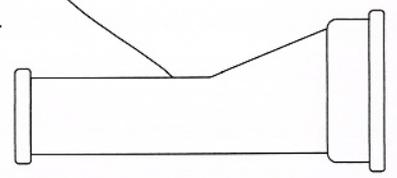
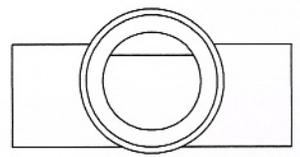
(2) NO. 3 REBARS, EMBED 6" IN ADJACENT CURB, BOTH SIDES (FOR NEW CURB & GUTTER).

4X4 - 10X10 WELDED WIRE FABRIC EXTENDING 15" BEYOND BOTH SIDES OF RECTANGULAR PIPE

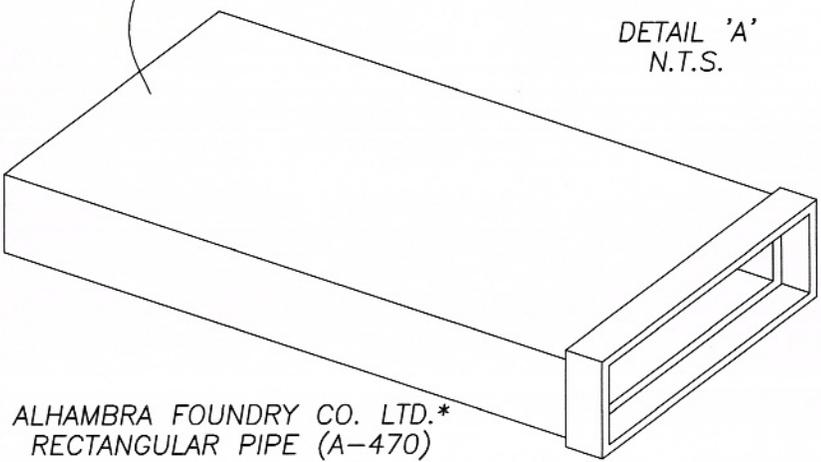
SEE DETAIL 'A'



DETAIL 'A'  
N.T.S.

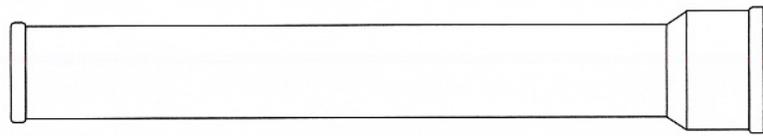


ALHAMBRA FOUNDRY CO. LTD.\*  
ADAPTOR (A-480)



ALHAMBRA FOUNDRY CO. LTD.\*  
RECTANGULAR PIPE (A-470)

ROUND PIPE	RECT. PIPE	LAYING LENGTH
4"	3" X 5"	1'0"
5"	3" X 9"	1'0"
6"	3" X 12 1/2"	1'0"
8"	4" X 14"	1'0"



OUTSIDE PIPE	OUTSIDE HUBS	TRANSVERSE AREA - NET	LAYING LENGTH
3" X 5"	4 1/4" X 6 1/4"	11.25 SQ. IN.	5'0"
3" X 5"	4 1/4" X 6 1/4"	11.25 SQ. IN.	2'6"
3" X 9"	4 1/4" X 10 1/4"	21.20 SQ. IN.	5'0"
3" X 12 1/2"	4 1/4" X 14"	30.00 SQ. IN.	5'0"
3" X 12 1/2"	4 1/4" X 14"	30.00 SQ. IN.	2'6"
4" X 14"	5 1/4" X 15 1/4"	47.50 SQ. IN.	5'0"
3" X 5"	5 1/4" X 15 1/4"	47.50 SQ. IN.	2'6"

\* ALTERNATIVE SYSTEMS MAY BE UTILIZED. USE OF ANY OTHER SYSTEM IS SUBJECT TO REVIEW AND APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.

APPROVED BY: *[Signature]* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

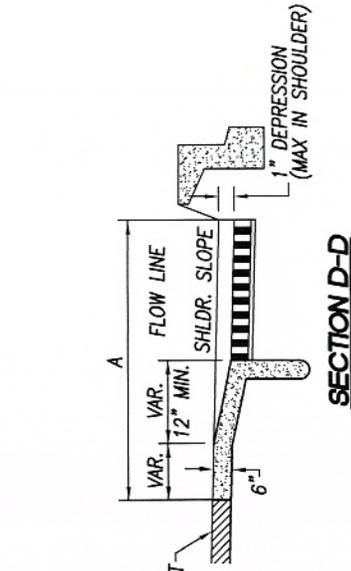
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			

CITY OF  
DESERT HOT SPRINGS

UNDER SIDEWALK DRAIN

STANDARD No. 307

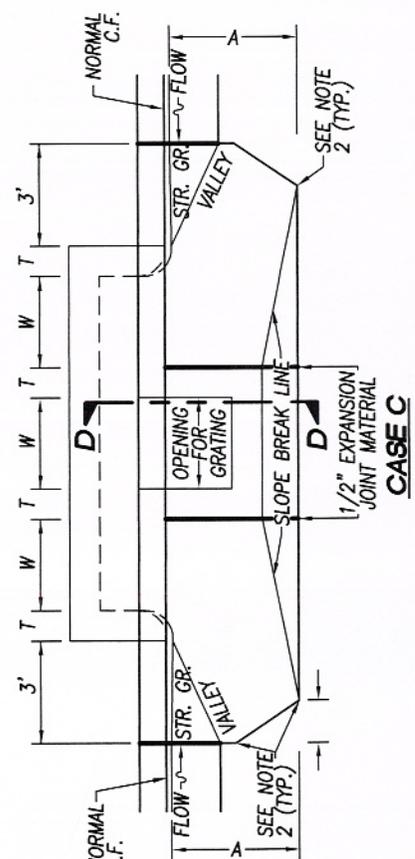
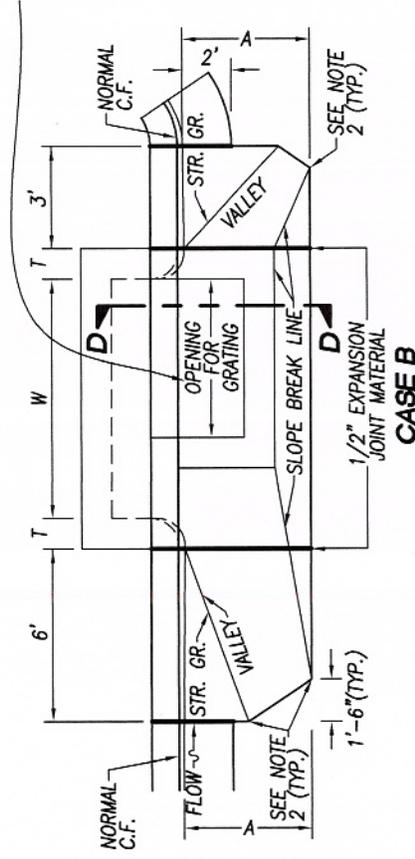
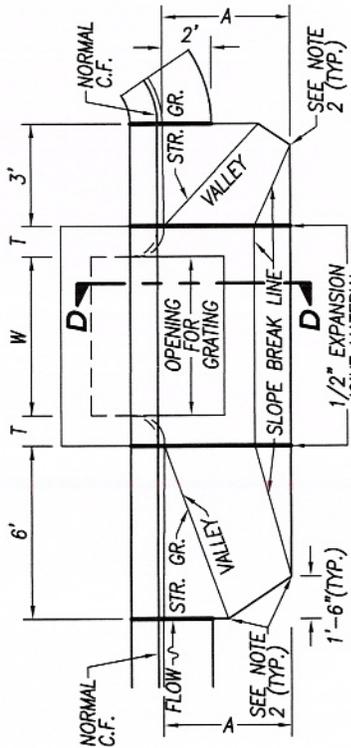




CATCH BASIN OPENING = NORMAL CURB FACE + 4 INCHES UNLESS OTHERWISE SPECIFIED.

**NOTES:**

- GUTTER DEPRESSION SHALL BE:
  - CASE 'A' SEE STD. NO. 302 COMBINATION CATCH BASIN, UNLESS OTHERWISE SPECIFIED.
  - CASE 'B' SEE STD. NO. 301 COMBINATION INLET CATCH BASIN, UNLESS OTHERWISE SPECIFIED.
- ELEVATIONS AT OUTER CORNERS SHOWN ON THE PROJECT DRAWINGS. IF NO ELEVATIONS ARE SPECIFIED, THE OUTER EDGE OF THE GUTTER DEPRESSION SHALL CONFORM TO THE FINISHED STREET SURFACE.
- A=4' UNLESS OTHERWISE SPECIFIED.  
T=SEE STD. DRAWING NO. 302 (A) DIMENSIONS.  
W=SEE STD. DRAWING NO. 302 (A) DIMENSIONS.
- WHERE NO CURB EXISTS, CURB SHALL BE CONSTRUCTED BETWEEN ENDS OF GUTTER DEPRESSION. CURB SECTION SHALL CONFORM TO THAT OF CONTROLLING AGENCY.
- DEPRESSION SHALL BE CLASS B CONCRETE.



APPROVED BY:

*Gene T. Ginther* 3/19/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

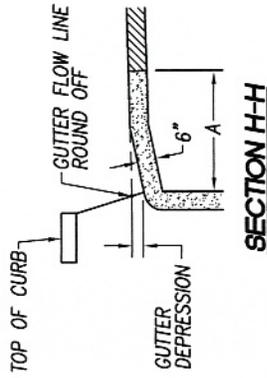
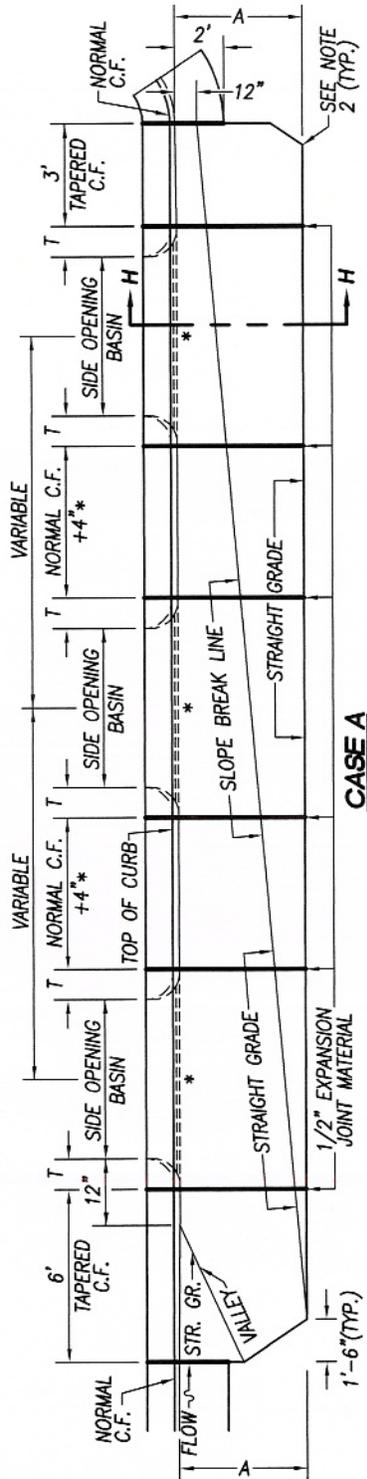
CITY OF  
DESERT HOT SPRINGS

GUTTER DEPRESSION  
FOR CURB OPENING  
CATCH BASIN

STANDARD No. 308



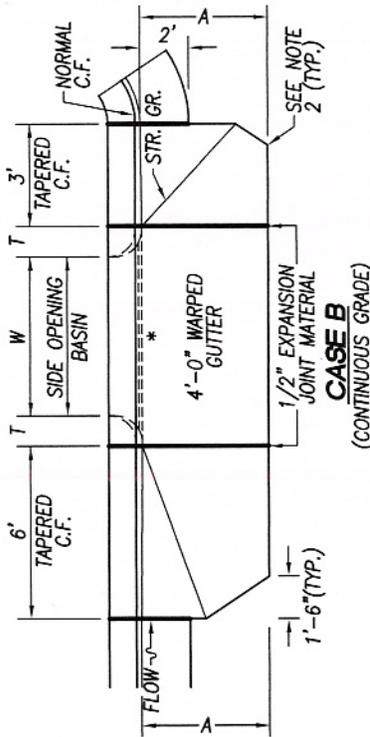
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DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



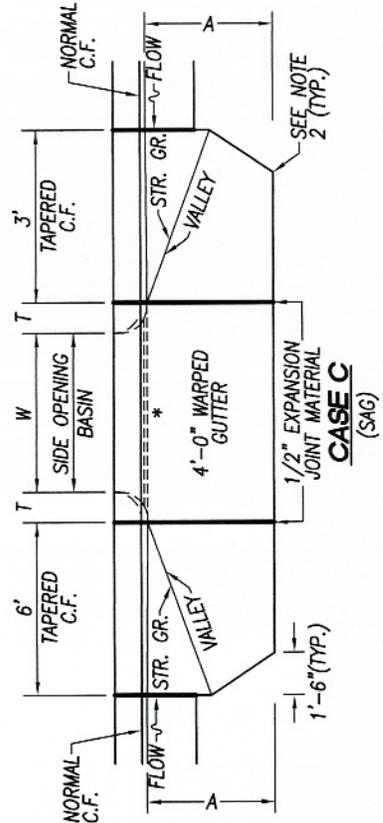
**SECTION H-H**

**NOTES:**

1. GUTTER DEPRESSION SHALL BE CASE B UNLESS OTHERWISE SPECIFIED ON PROJECT DRAWINGS.
  2. ELEVATIONS OF OUTER CORNERS SHOWN ON PROJECT. IF NO ELEVATIONS ARE SPECIFIED, THE OUTER EDGE OF GUTTER DEPRESSION SHALL CONFORM TO FINISHED STREET SURFACE.
  3. A=4 FEET UNLESS OTHERWISE SPECIFIED.  
T=SEE STANDARD DRAWING 300(A) DIMENSIONS.  
W=4 FEET MIN., UNLESS OTHERWISE SPECIFIED.
  4. WHERE NO CURB EXIST, CURBS SHALL BE CONSTRUCTED BETWEEN ENDS OF GUTTER DEPRESSION. CURB SECTION SHALL CONFORM TO THAT OF CONTROLLING AGENCY.
  5. DEPRESSION SHALL BE CLASS "B" CONCRETE.
- \* CATCH BASIN OPENING=NORMAL CURB HEIGHT +4 INCHES UNLESS OTHERWISE SPECIFIED.



**CASE B**  
(CONTINUOUS GRADE)



**CASE C**  
(SAG)

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

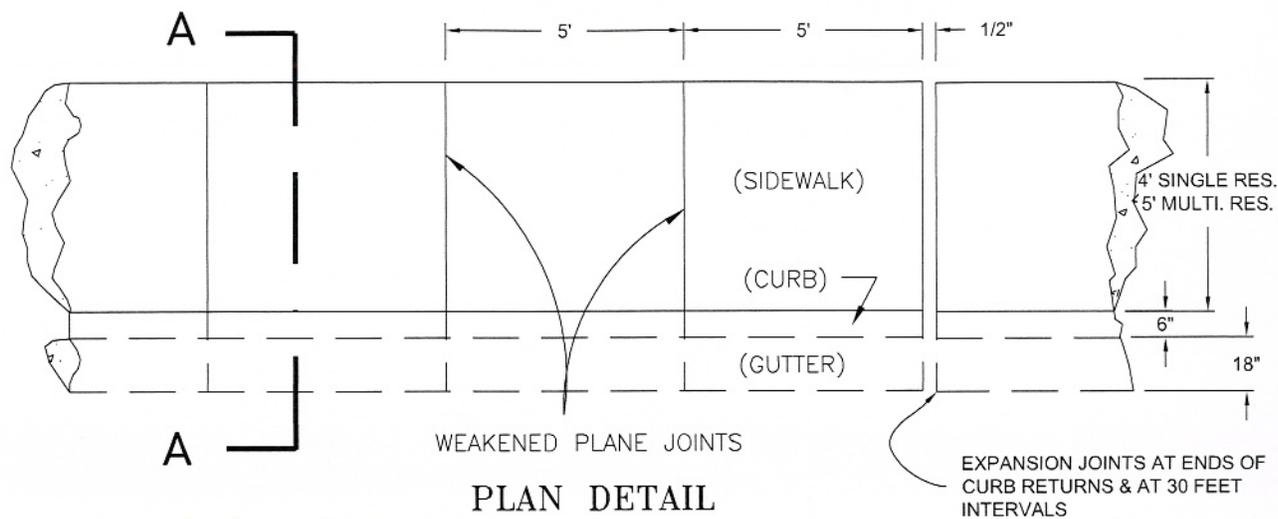
GUTTER DEPRESSION  
FOR CURB OPENING  
CATCH BASIN

STANDARD No. 309

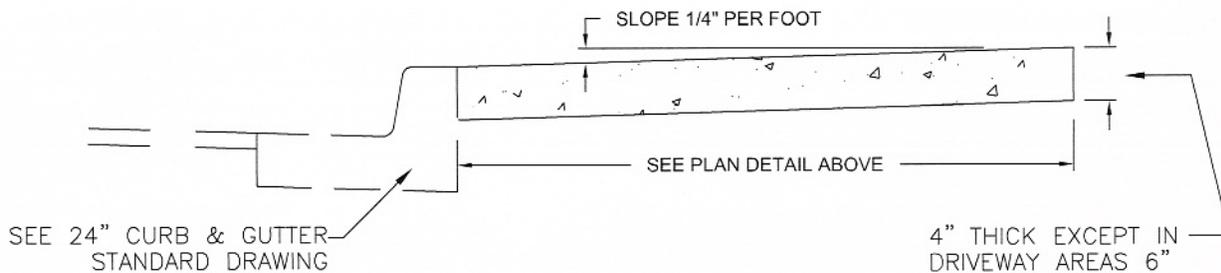


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DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			

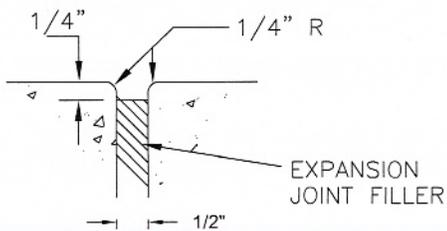
# **SIDEWALKS**



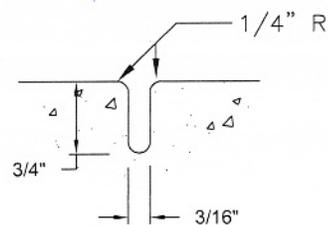
PLAN DETAIL



SECTION A-A



EXPANSION JOINT DETAIL



WEAKENED PLANE JOINT DETAIL

- NOTE:  
 1 USE CLASS "B" CONCRETE  
 2 CONCRETE TO RECEIVE A LIGHT BROOM FINISH

APPROVED BY:

*Gene T. Ginther* 3/13/09

GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

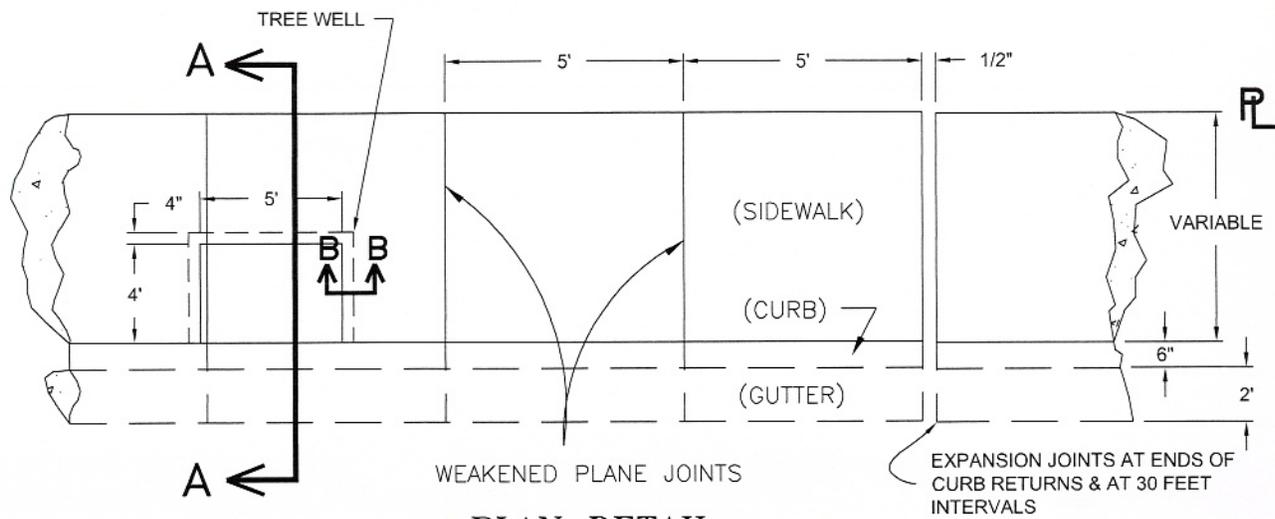
CITY OF  
 DESERT HOT SPRINGS

STANDARD  
 SIDEWALK  
 RESIDENTIAL AREA

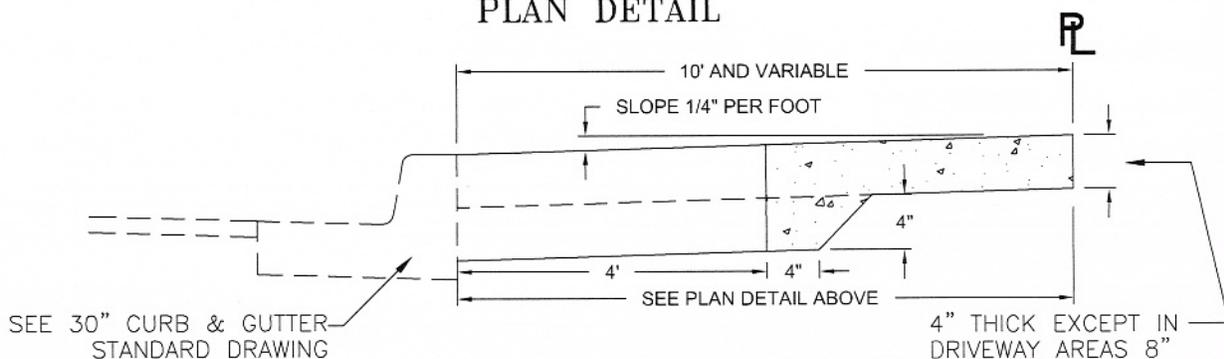
STANDARD No. 400



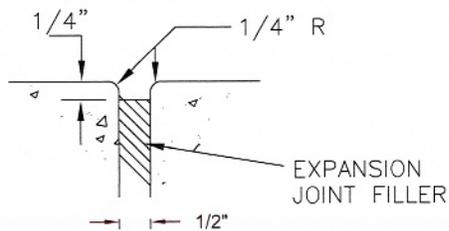
DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			



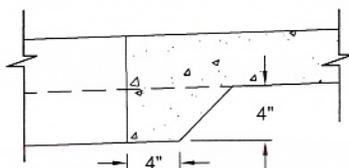
PLAN DETAIL



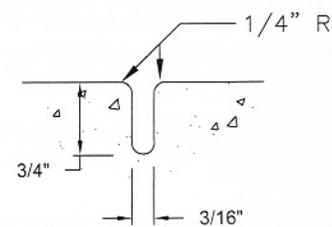
SECTION A-A



EXPANSION JOINT DETAIL



SECTION B-B



WEAKENED PLANE JOINT DETAIL

- NOTE:
- 1 USE CLASS "B" CONCRETE
  - 2 CONCRETE TO RECEIVE A LIGHT BROOM FINISH

APPROVED BY:

*Gene T. Ginther* 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS

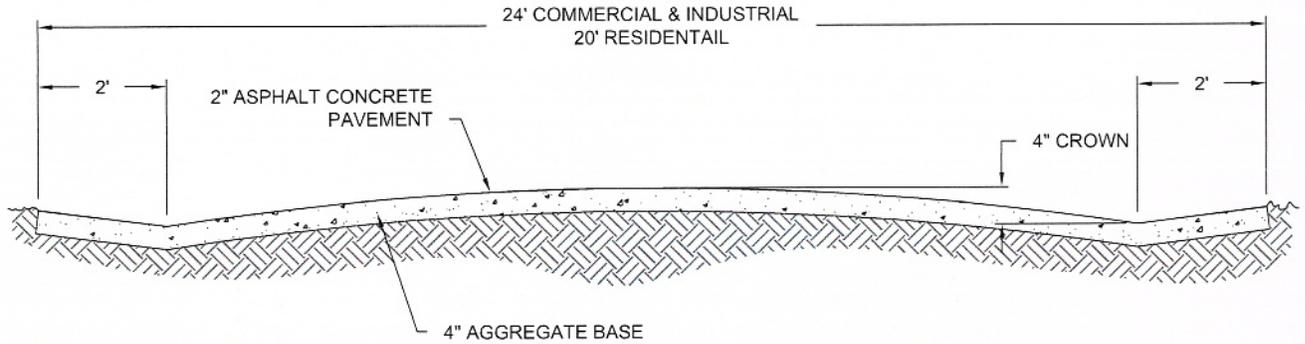
STANDARD  
 SIDEWALK  
 COMMERCIAL AREA

STANDARD No. 401



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			

# ALLEYS



APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

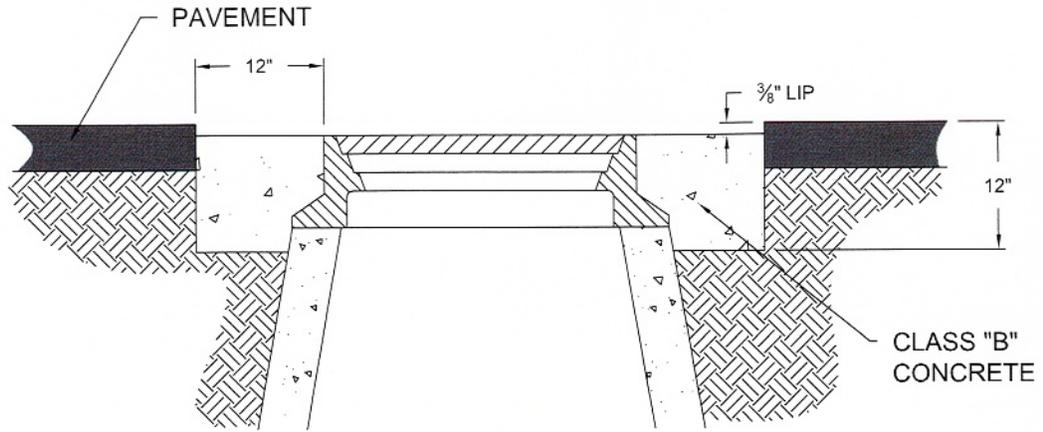
STANDARD  
ALLEY SECTION



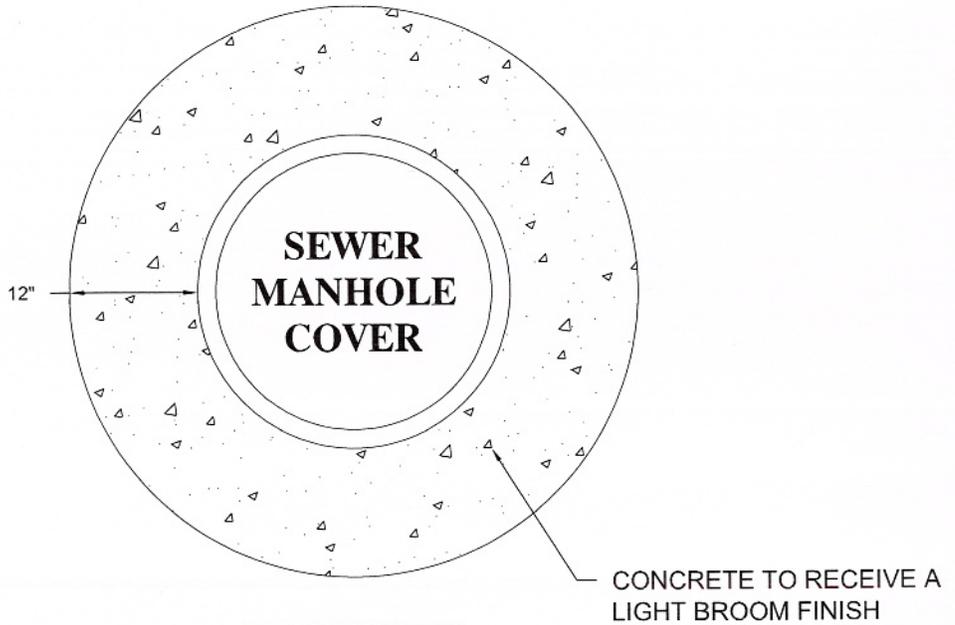
STANDARD No. 500

DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			

# **SEWER**



**CROSS SECTION**



**PLAN VIEW**

**NOTES:**

1. DETAIL FOR ADJUSTING SEWER MANHOLES.
2. VALLEY SANITARY DISTRICT: 4" STD. FRAME & COVER, 300 lb. CLASS ("SEWER" OR "S" ON COVER)

APPROVED BY:

*Gene T. Gintner* 3/13/07

GENE T. GINTNER CITY ENGINEER  
RQE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

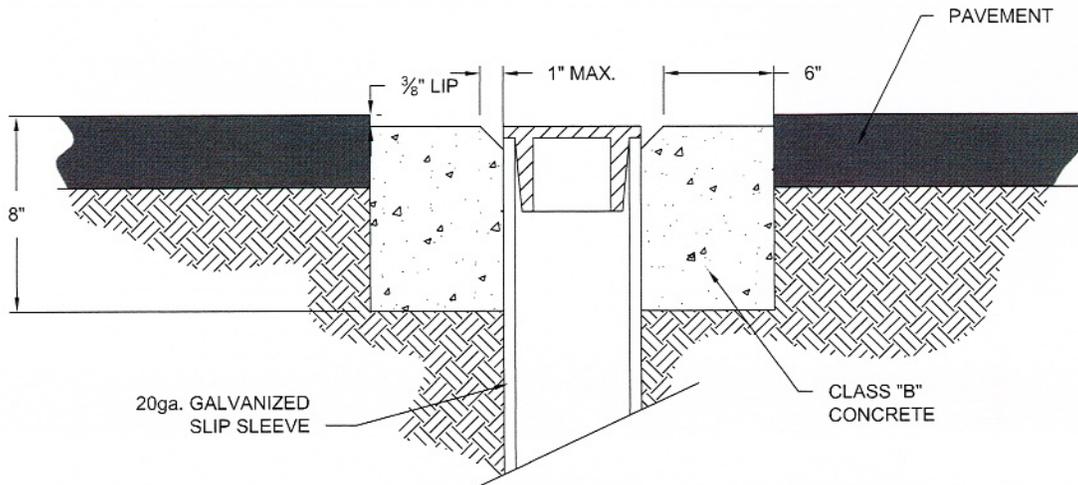
SEWER  
MANHOLE DETAIL

STANDARD NO. 600

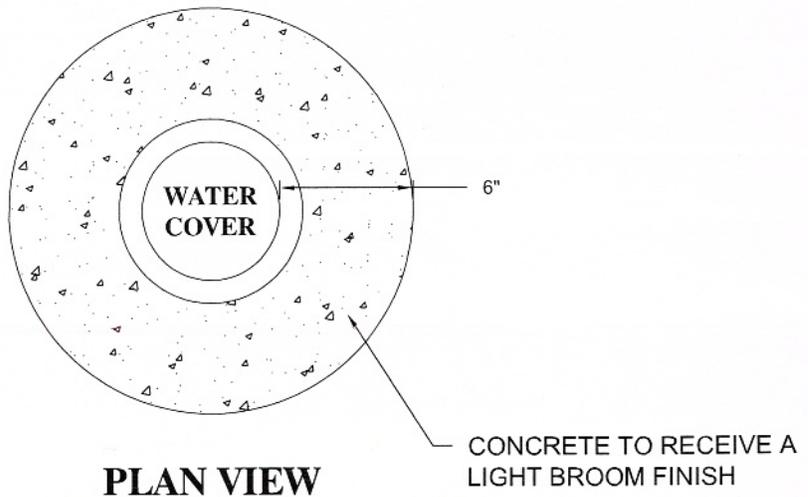


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DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			

# WATER



**CROSS SECTION**



**PLAN VIEW**

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

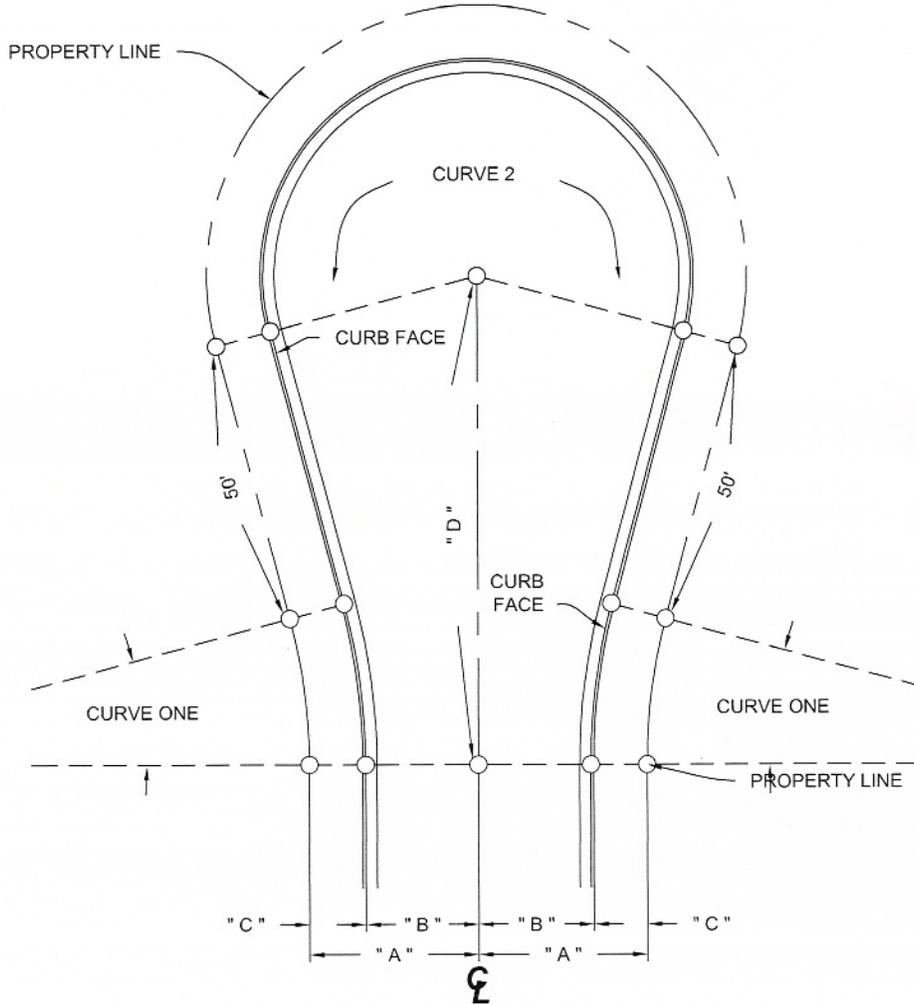
**WATER VALVE  
COVER DETAIL**

STANDARD No. 700



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			

# **GEOMETRICS**



R/W	CURVE 1											CURVE 2				
	A	B	C	D	Δ	CURB			PROPERTY			Δ	CURB		PROPERTY	
						R	L	T	R	L	T		R	L	R	L
50'	25'	18'	7'	92.11'	17° - 36' - 02"	107'	32.86'	16.56'	100'	30.72'	15.48'	215° - 12' - 04"	40'	150.21'	47'	176.53'
60'	30'	20'	10'	86.63'	15° - 00' - 39"	110'	28.82'	14.49'	100'	26.20'	13.18'	210° - 01' - 18"	38'	139.29'	48'	175.95'
66'	33'	23'	10'	83.74'	13° - 38' - 42"	110'	26.19'	13.15'	100'	23.82'	11.96'	207° - 17' - 24"	39'	141.08'	49'	177.28'
54'	27'	20'	7'	89.33'	16° - 20' - 13"	107'	30.51'	15.36'	100'	28.51'	14.35'	212° - 40' - 26"	40'	148.47'	47'	174.45'

NOTE: 50' R/W ALLOWED FOR PRIVATE STREETS ONLY.

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

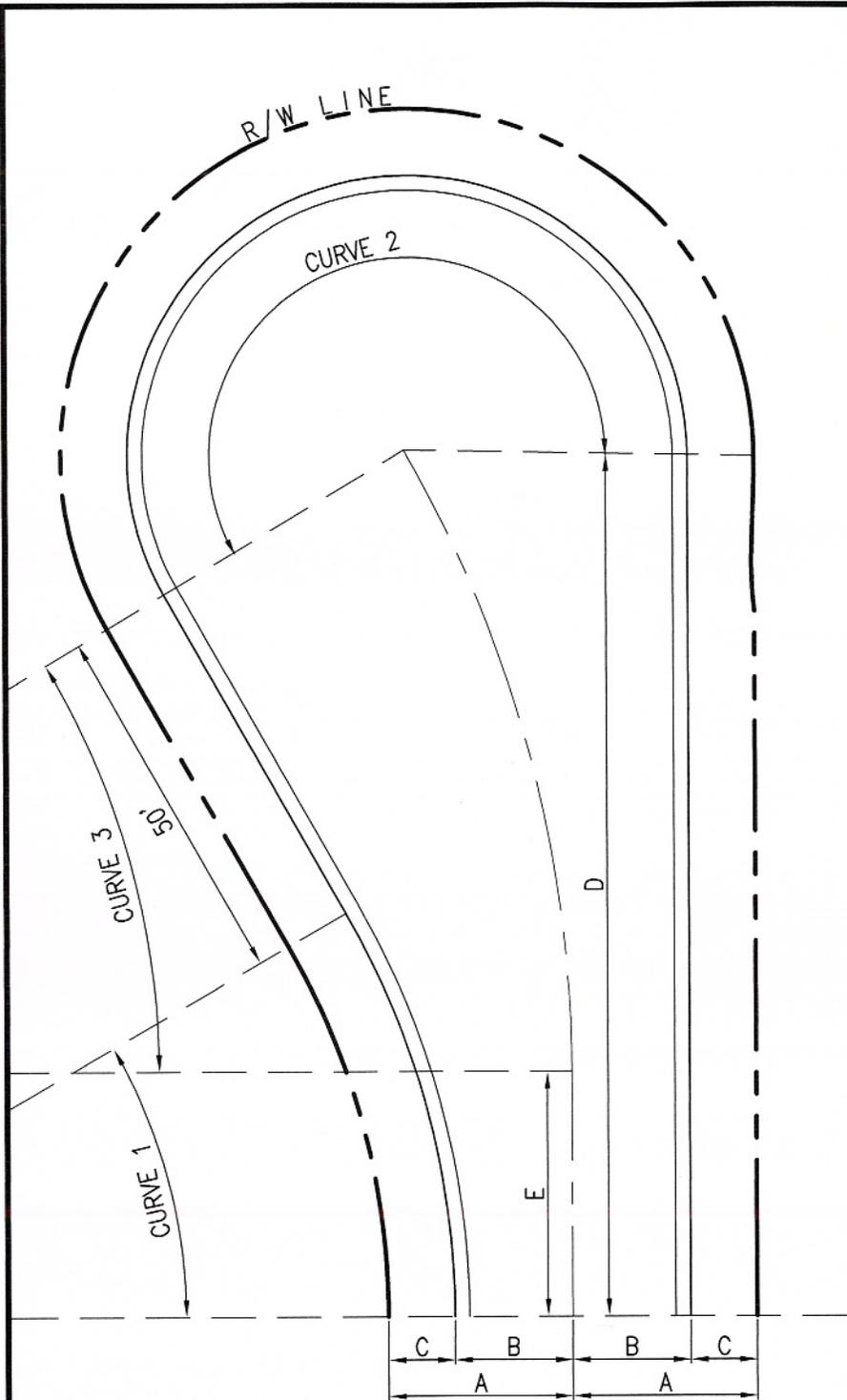
CUL-DE-SAC  
STANDARD

STANDARD No. 800



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			

DATE:  
SCALE: NONE  
SHEET 1 OF 1



R/W	CURVE 1					CURVE 2					CURVE 3							
	CURB		R/W			CURB		R/W			CURB		R/W					
	R	L	R	L	R	L	R	L	R	L	R	L	R	L				
50'	25'	16'	9'	116.19'	33.10'	29°39'30"	109'	56.42'	100'	51.76'	209°39'30"	38'	139.05'	47'	171.98'	29°39'30"	167.93'	86.93'
56'	28'	18'	10'	112.87'	31.436'	27°35'48"	110'	52.98'	100'	48.165'	207°35'48"	38'	137.68'	48'	173.916'	27°35'47"	175.795'	84.672'
60'	30'	18'	12'	113.58'	31.79'	27°28'54"	112'	53.72'	100'	47.96'	207°28'54"	38'	137.61'	50'	181.06'	27°28'54"	177.24'	85.01'
60'	30'	20'	10'	108.90'	29.45'	25°31'48"	110'	49.01'	100'	44.56'	205°31'48"	38'	136.31'	48'	172.18'	25°31'48"	184.35'	82.14'
66'	33'	22'	11'	104.94'	27.47'	23°20'19"	111'	45.21'	100'	40.73'	203°20'19"	38'	134.86'	48'	173.90'	23°20'19"	195.54'	79.65'
78'	39'	28'	11'	121.38'	35.69'	28°47'56"	111'	55.79'	100'	50.26'	208°47'56"	50'	182.21'	61'	222.30'	28°47'56"	177.87'	89.41'
88'	44'	32'	12'	132.20'	41.10'	31°51'28"	112'	62.27'	100'	55.60'	211°51'28"	58'	214.46'	70'	258.83'	31°51'28"	172.59'	95.97'

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

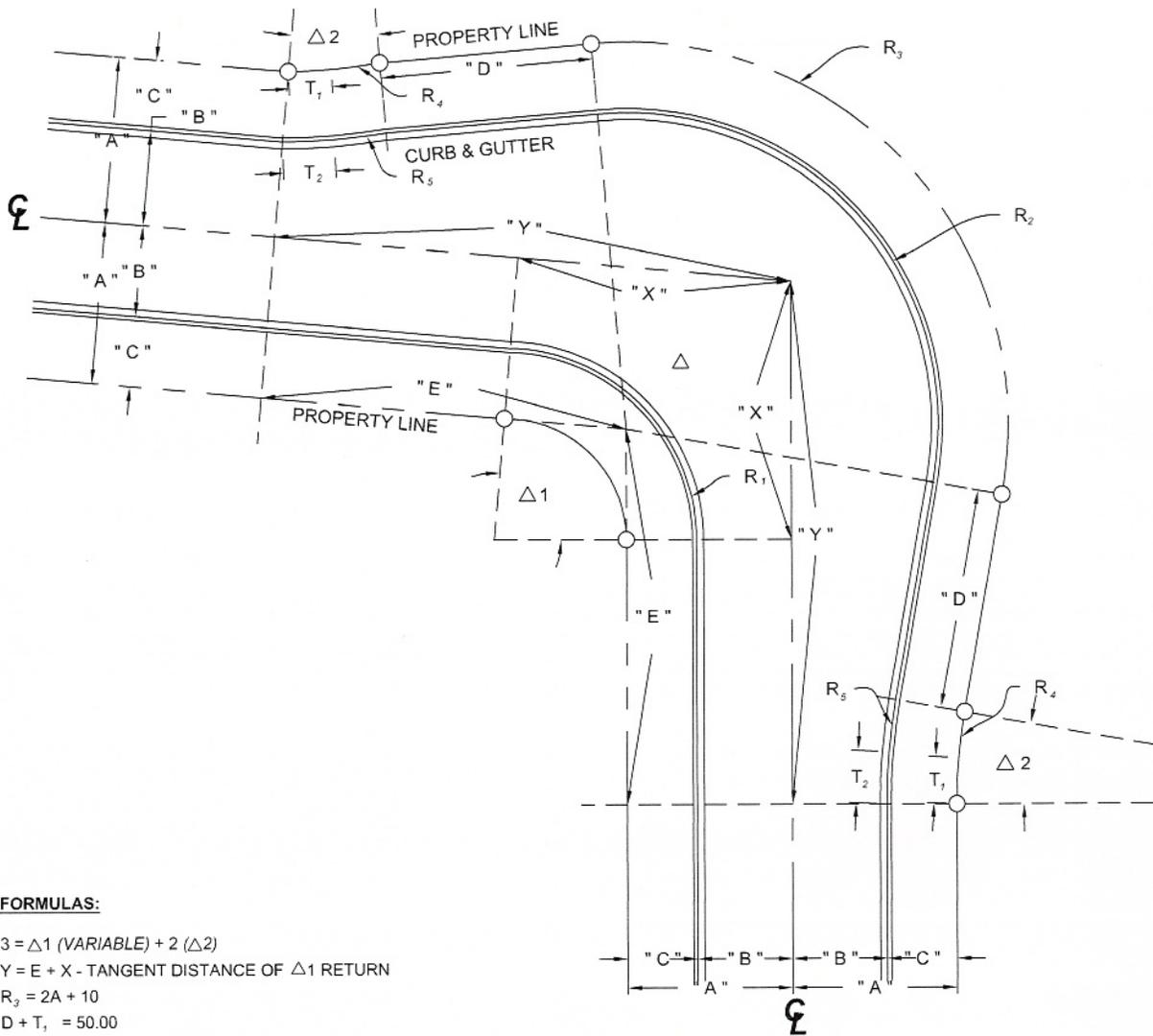
CITY OF  
DESERT HOT SPRINGS

OFFSET  
CUL-DE-SAC



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			

STANDARD No. 801



**FORMULAS:**

$3 = \Delta 1 \text{ (VARIABLE)} + 2 (\Delta 2)$   
 $Y = E + X - \text{TANGENT DISTANCE OF } \Delta 1 \text{ RETURN}$   
 $R_3 = 2A + 10$   
 $D + T_1 = 50.00$

R/W	ROADWAY IMPROVEMENT WIDTH	A	B	C	D	E	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	Δ <sub>2</sub>	R <sub>4</sub>	T <sub>1</sub>	R <sub>5</sub>	T <sub>2</sub>
50'	36'	25'	18'	7'	40.91'			53'	60'	10° - 23' - 20"	100'	9.09'	107'	9.73'
60'	40'	30'	20'	10'	41.04'	70.60'	35'	60'	70'	10° - 14' - 11"	100'	8.96'	110'	9.86'
66'	46'	33'	23'	10'	41.12'			66'	76'	10° - 08' - 57"	100'	8.88'	110'	9.77'

NOTE: 50' R/W ALLOWED FOR PRIVATE STREETS ONLY.

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS

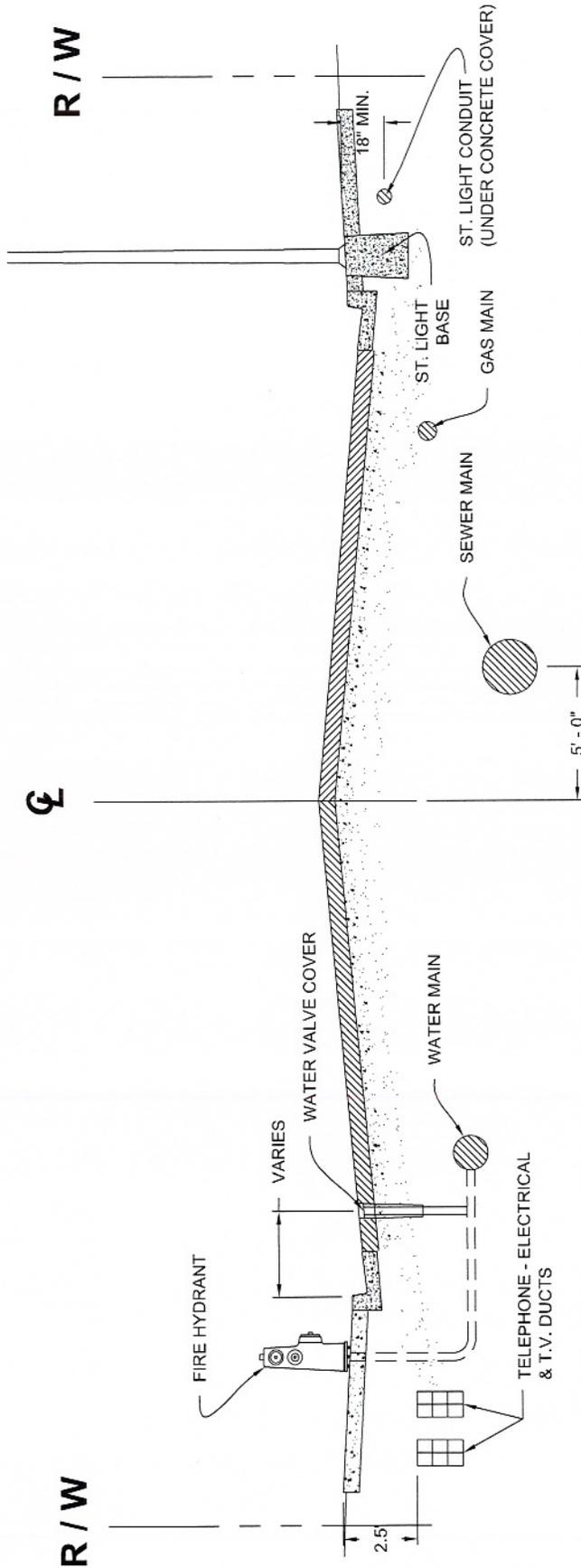
STANDARD  
 KNUCKLE



STANDARD No. 802

DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			

DATE: SCALE: NONE SHEET 1 OF 1



**SOUTH & EAST SIDES OF STREET**

**NORTH & WEST SIDES OF STREET**

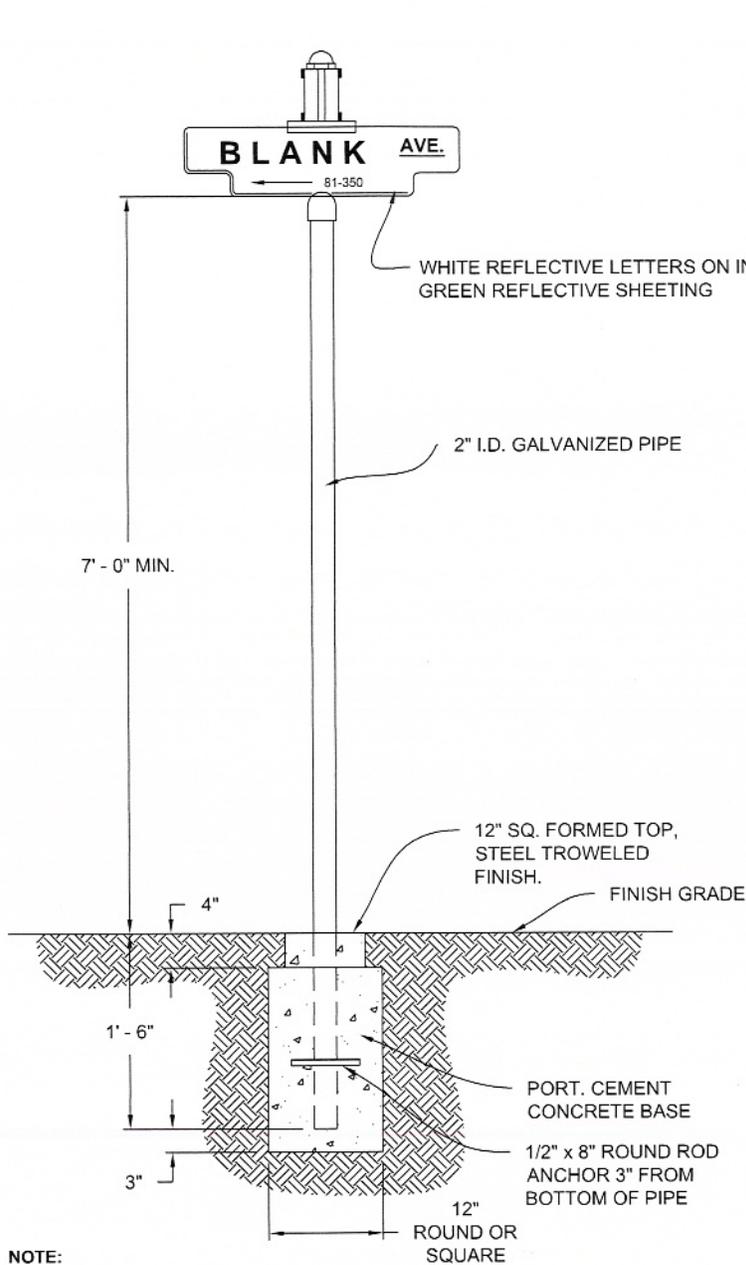
**NOTE:**

THIS STANDARD IS A GUIDE ONLY, DEVIATIONS MAY BE APPROVED WHERE SPECIAL CONDITIONS ARE ENCOUNTERED.

THE INTENTION IS TO SHOW THE RELATIVE POSITION OF ALL UTILITIES.

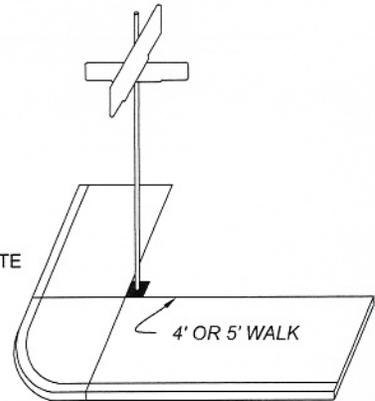
APPROVED BY: <i>Gene T. Ginther</i> GENE T. GINTHER CITY ENGINEER RCE 40429 EXP: 3/31/09		CITY OF DESERT HOT SPRINGS	
		SUGGESTED UNDERGROUND UTILITIES LOCATIONS	
DRAWN BY: _____ DATE: _____ SCALE: NONE SHEET 1		STANDARD NO. 803	
REVISIONS:		BY: APRD DATE	
1 _____		_____	
2 _____		_____	
3 _____		_____	



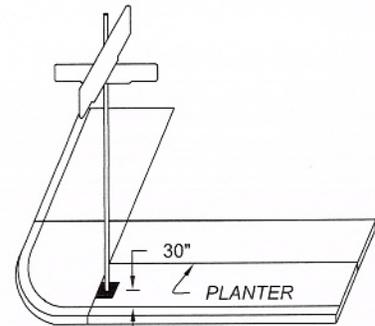


**NOTE:**

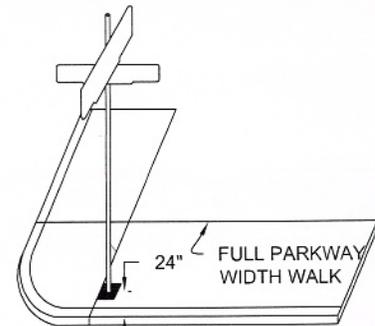
1. NORMAL POLE LOCATION TO BE ON SOUTHEAST CORNER OF INTERSECTION. OTHER LOCATIONS SUBJECT TO INDIVIDUAL REVIEW.
2. POLE IS TO BE SET PRIOR TO SIDEWALK POUR.



**RESIDENTIAL**



**LOCATION IN A PLANTER AREA**



**LOCATION IN FULL PARKWAY SIDEWALK**

APPROVED BY:

*Gene T. Ginther* 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

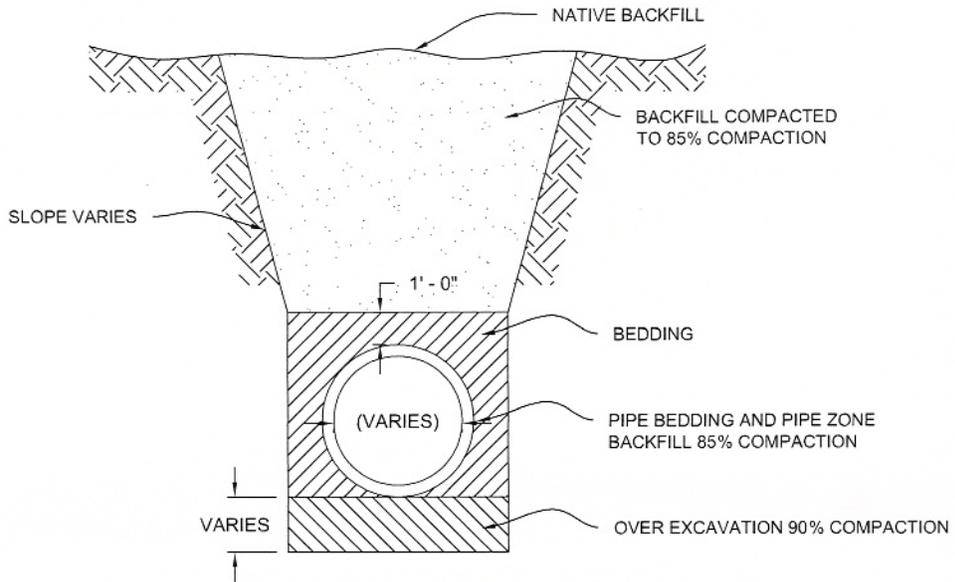
CITY OF  
 DESERT HOT SPRINGS

DOUBLE FACE  
 STREET SIGN  
 STANDARD

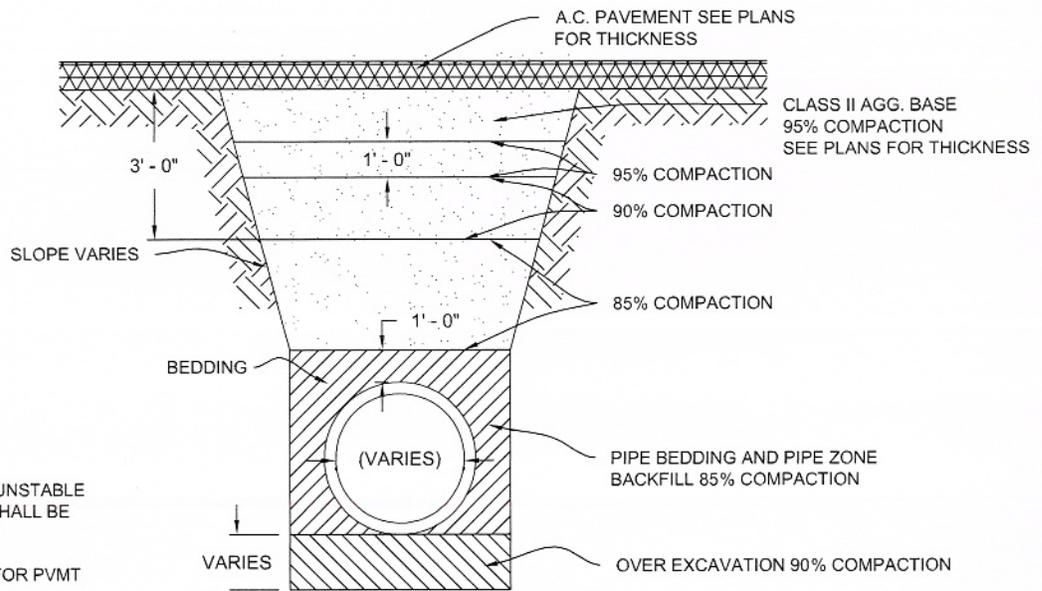
STANDARD No. 804



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DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



**ROADSIDE STRIPS, MEDIANS & EASEMENTS**



**RE - SURFACED STREETS**

**NOTE:**

1. OVER EXCAVATION IN UNSTABLE FOUNDATION ZONES SHALL BE PER SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR PVMT REQUIREMENTS.
3. ALL EXCAVATION SHALL CONFORM TO CONSTRUCTION SAFETY ORDERS, DIV. INDUSTRIAL SAFETY.
4. THIS DETAIL APPLIES TO SEWER, STORM DRAIN, AND WATER. UNLESS OTHERWISE CALLED FOR ON PLANS.

APPROVED BY:

*Gene T. Ginther* 3/15/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

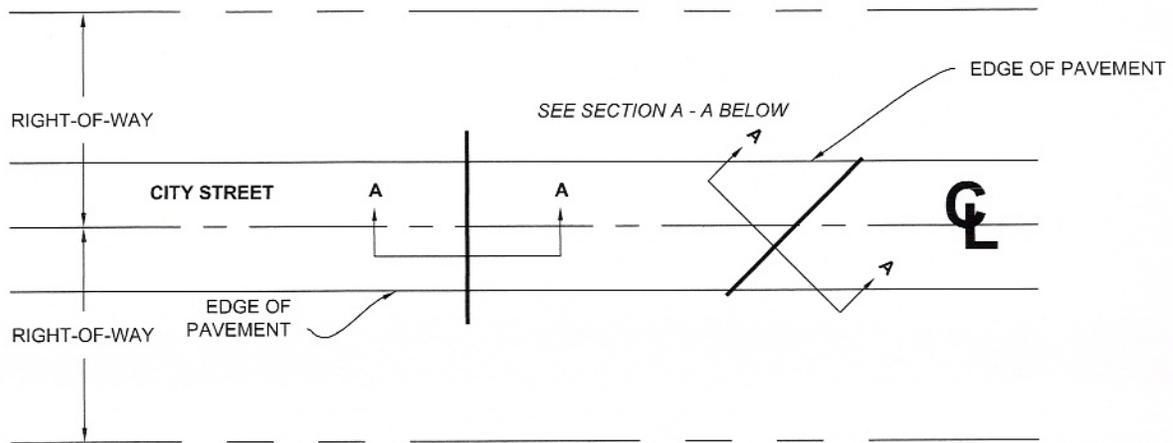
CITY OF  
 DESERT HOT SPRINGS

**TRENCHING  
 BACKFILL  
 STANDARD**

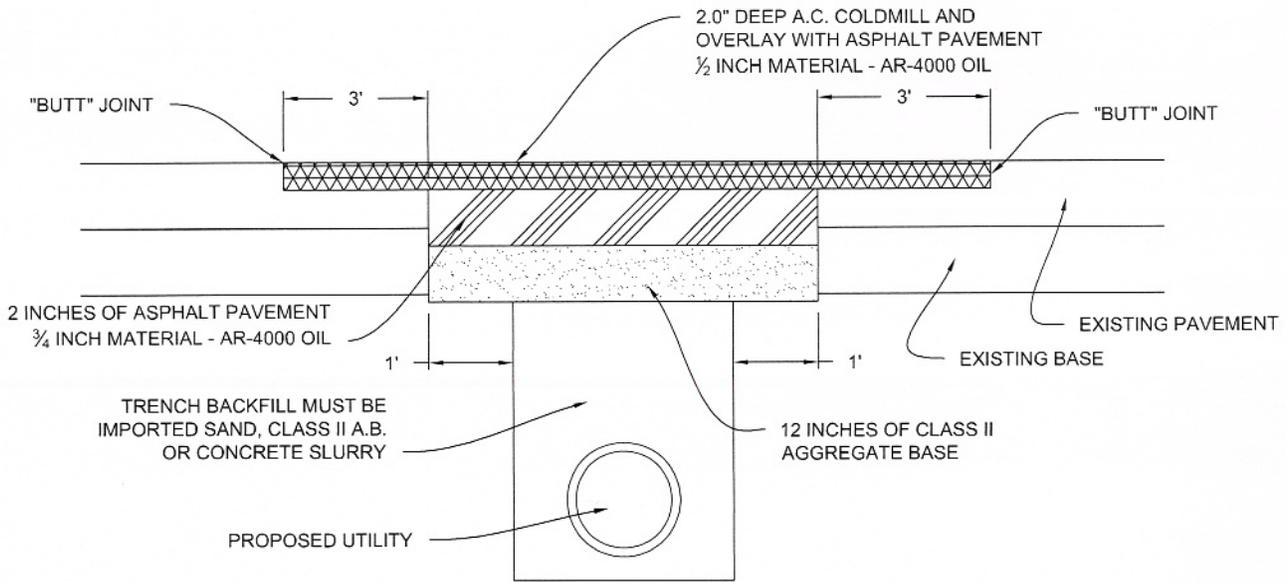
STANDARD No. 805



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
DATE:	1			
SCALE: NONE	2			
SHEET 1 OF 1	3			



**PLAN VIEW**



**SECTION A - A**

APPROVED BY:

*Gene T. Ginther* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

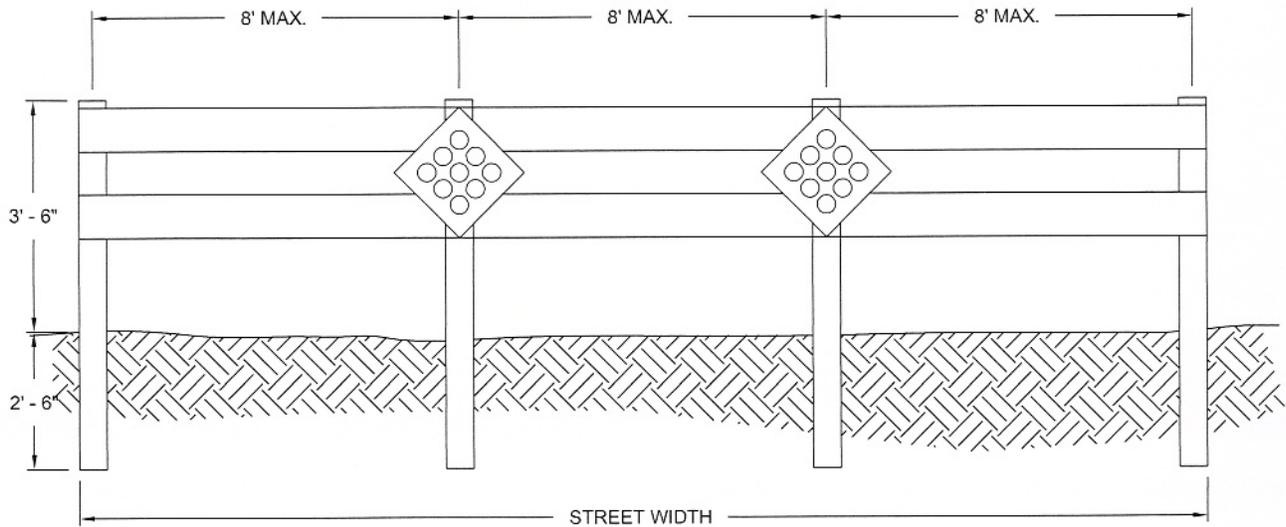
CITY OF  
DESERT HOT SPRINGS

**TRAVERSE  
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BACKFILL**

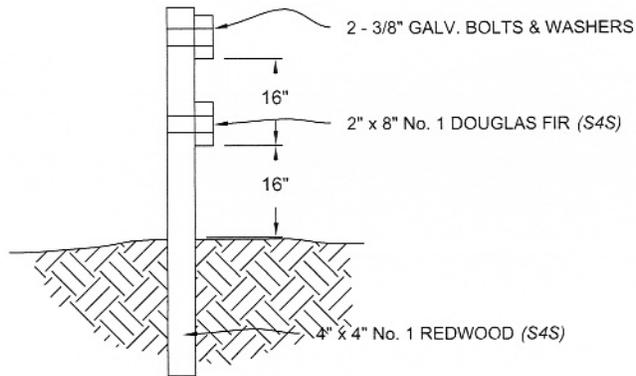
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SHEET 1 OF 1				



**FRONT VIEW**



**SIDE VIEW**

**NOTE:**

1. REFLECTOR SIGNS, CALIF. HWY. CODE TYPE N (18" x 18") MIN. 2 EQUALLY SPACED.
2. PAINT ALL WOOD SURFACES ABOVE GROUND WITH TWO (2) APPLICATIONS OF COMMERCIAL QUALITY WHITE ENAMEL.

APPROVED BY:

*Gene T. Ginther* 3/15/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

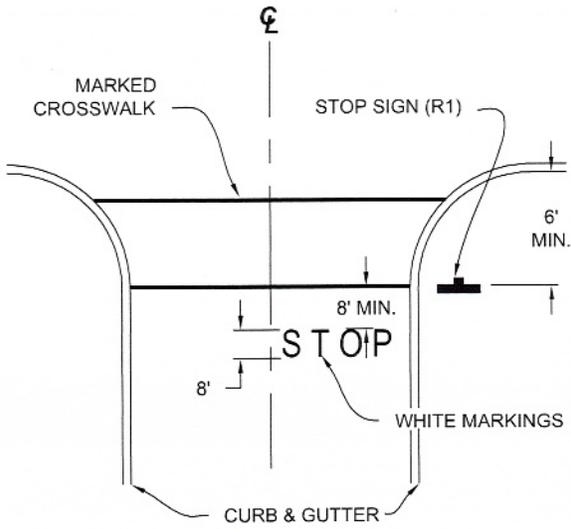
CITY OF  
 DESERT HOT SPRINGS

**STREET  
 BARRICADE**

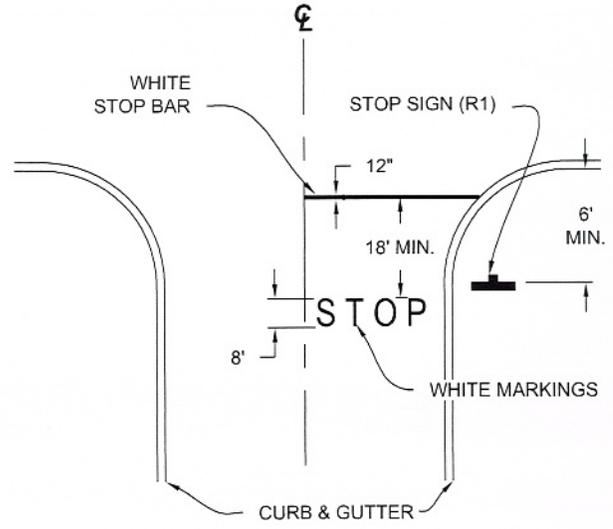
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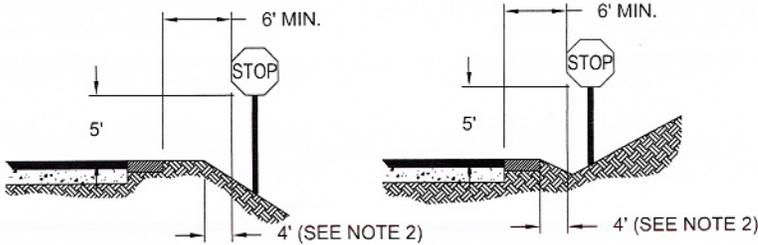
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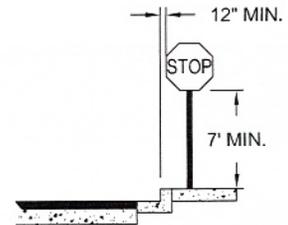
**SIGN & MARKINGS WITH CROSSWALK**



**SIGN & MARKINGS WITHOUT CROSSWALK**



**RURAL LOCATIONS**



**URBAN LOCATIONS**

**NOTES:**

1. REF. STATE TRAFFIC MANUAL - PAGES 8-501.2, 8-503.2, 8-601.3E.
2. MINIMUM OF 4' BEYOND IMPROVED SHOULDER.

APPROVED BY:

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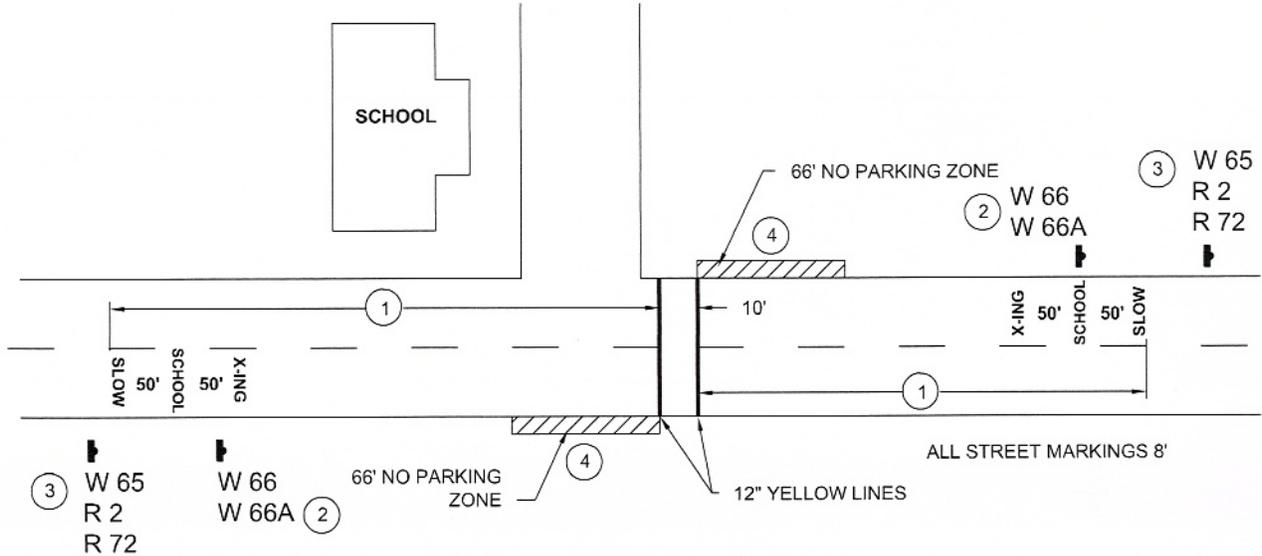
CITY OF  
DESERT HOT SPRINGS

**STOP SIGN &  
STREET  
MARKING LOCATION**

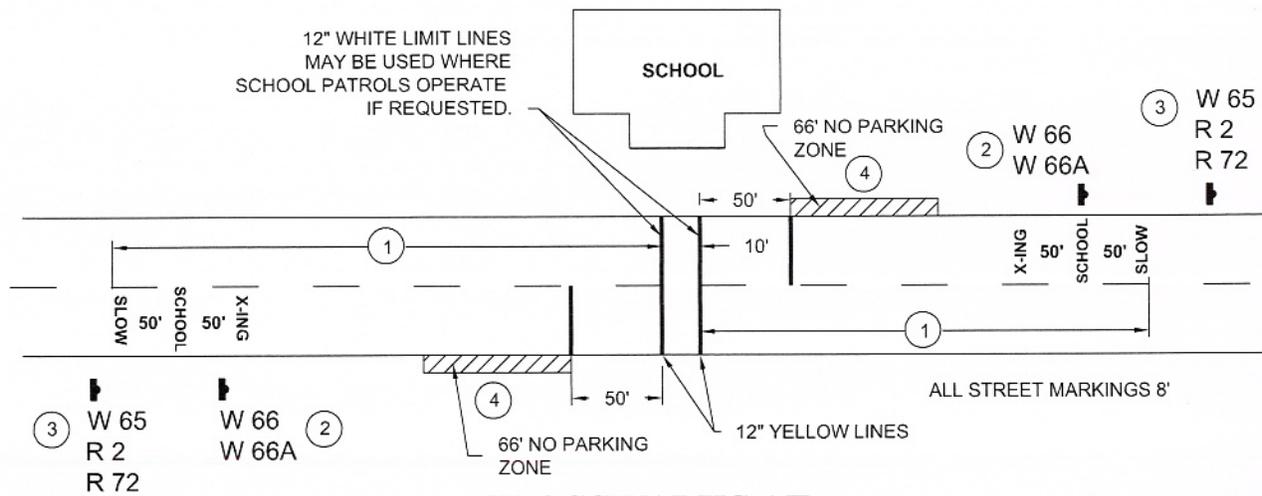
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### CROSSWALKS AT INTERSECTING STREET



### CROSSWALKS AT SCHOOL ENTRANCE

**NOTES:**

- ① DISTANCE NOT TO EXCEED 300' IN 25 MPH ZONE AND 500' IN 35 - 45 MPH ZONE.
- ② PLACE SIGN 300' IN ADVANCE OF CROSSWALK IN 25 MPH ZONE, AND NOT TO EXCEED 500' IN ZONES 35 MPH AND OVER.

IN NO CASE SHALL THEY BE PLACED BEYOND NEXT STREET INTERSECTION.

- ③ PLACE SIGN IN ADVANCE OF SCHOOL PROPERTY CORNER, BUT NOT MORE THAN 500' IN ADVANCE.
- ④ PLACE R 26, NO PARKING ANY TIME, SIGN AT EACH END OF ZONE.

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 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

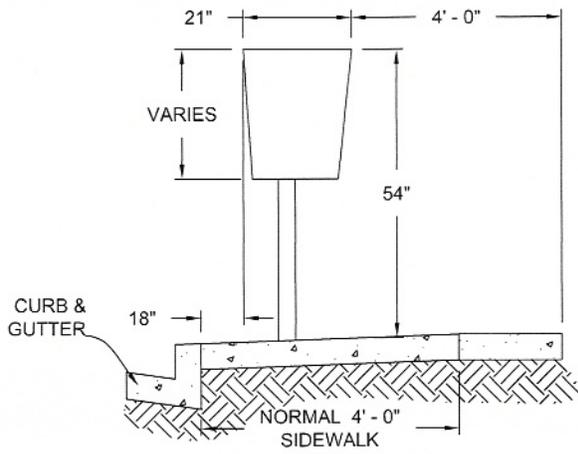
CITY OF  
 DESERT HOT SPRINGS

STANDARD  
 SIGNS & MARKINGS  
 SCHOOL AREAS

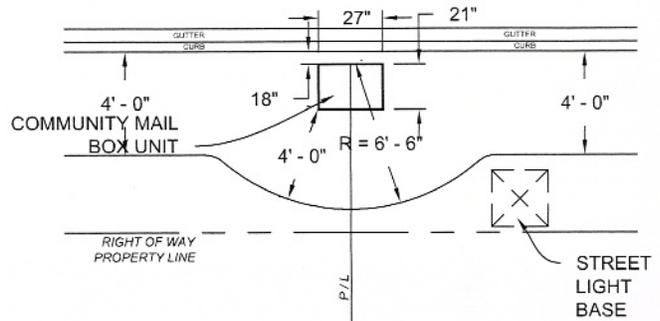
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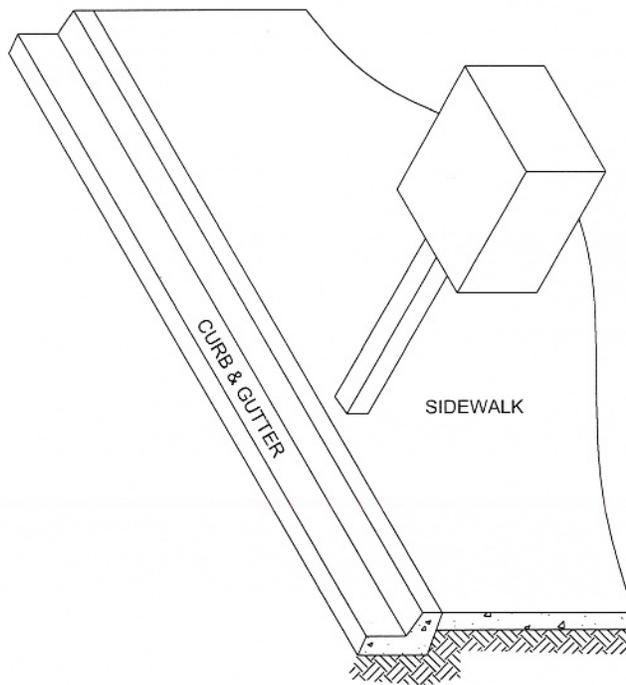
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SHEET 1 OF 1				



**SIDE VIEW**



**PLAN VIEW**



**ISOMETRIC VIEW**

APPROVED BY:

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RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

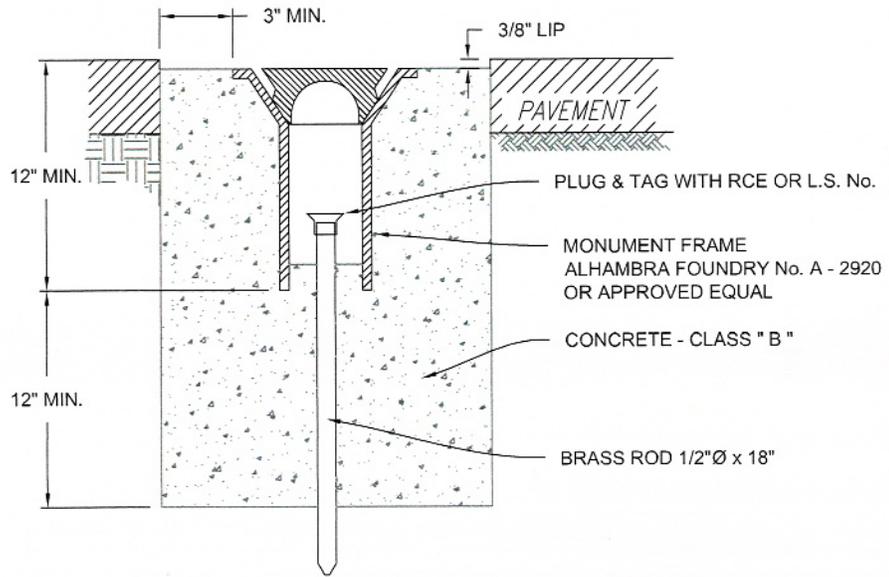
MAILBOX  
LOCATION  
STANDARD

STANDARD No. 810

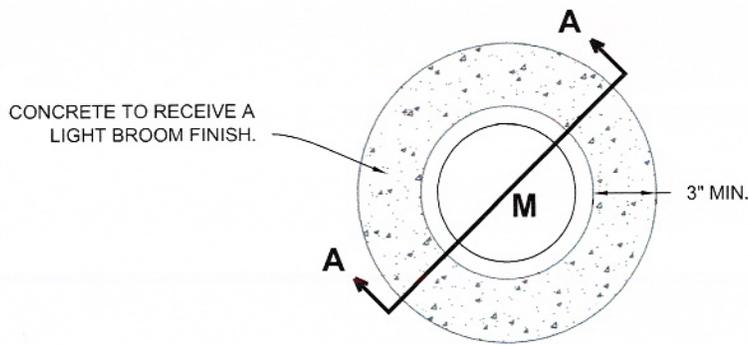


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# MONUMENTING



**SECTION A - A**



**PLAN VIEW**

APPROVED BY:

*Gene T. Ginter*

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RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

STANDARD  
SURVEY MONUMENT

STANDARD No. 900



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# **LIGHTING**

# STREET LIGHTING SPECIFICATIONS

## I. OBJECT & PURPOSE

These standards and specifications have been prepared to insure the design and construction of an adequate street lighting system by the development of standards for materials and methods of design and construction. The standards and specifications are to serve as a guide for developers and engineers in the preparation of plans and specifications for street lighting systems.

## II. DESIGN STANDARDS

### A. **General Requirements**

The subdividers or developers of land shall prepare detailed underground street lighting plans for his proposed development, except where it is not feasible due to the size and location of the development.

The subdivider or developer shall provide to the City all the easements and right-of-way necessary for the construction of facilities.

The plans shall be prepared in accordance with the "Street Lighting Standards of the City of Desert Hot Springs" and approved by the City. They shall be on 24" x 36" good quality vellum or mylar with sufficient detail to locate the facilities shown. Where necessary, profiles may be required. After construction, the developer shall provide the City with the "As – Built" original drawings, showing exact conduit runs, light locations, and transformer locations. The "As – Built" drawing must be signed by the Contractor as being correct. The project will not be released, or will bonds be released until the AS – BUILT originals are in the possession of the Development Department.

All work shall be performed under the inspection of the City of Desert Hot Springs.

### B. **Design Requirements**

1. Type of Circuits: All circuits shall be underground, encased in plastic conduits, and designed for 120 volts multiple type service. The size of the conductor shall be such that the voltage drop, at any time, shall not exceed three (3) percent. The size of the plastic conduit shall be that specified in the "UNIFORM WIRING CODE", normally installed under sidewalks or along common property lines. Each circuit shall be protected by a 10 AMP Circuit Breaker or other approved fusing device.
2. Service Connections: When the service connection for an underground lighting circuit is from an overhead source, the pole drop shall be encased in metallic tubing and connected to the underground plastic conduit, in accordance with the power company's standard practices.  
*See Drawing No. 1008.*
3. Street Light Standards: All street light standards shall be 30' high with a steel or aluminum pole. Other types of ornamental poles may be used subject to approval of the City.
4. Spacing and Lumination Requirements:

**Section A** = Residential Streets (*R-E, R-L, R-M, R-MH, R-H, R-L VS, R-M VS, AND R-H VS Zones*)

- 1.) Spacing: Street Light Standards shall be installed at intersections and at intervals not to exceed 30' high with a steel or aluminum pole. Other types of ornamental poles may be used subject to approval of the City.

- 2.) Location: Light standards generally are to be installed on the opposite side at tee intersections, 2' before the curb return radius point at other intersections, and on common lot lines where possible. The light standard shall be located behind the sidewalk. Conduit lines running parallel to the curb shall be located under the sidewalk and 12" toward the curb from the rear edge of the sidewalk. See *Drawing No's. 1003, and 1006.*
- 3.) Size and Type of Lamp and Luminary: Each light standard shall be equipped with a 10,000 LUMEN HIGH PRESSURE SODIUM VAPOR LAMP. The luminary shall be end – mounted with a built – in ballast and photo cell and designed for Type III lighting distribution. Alternate types of lighting may be used upon design approval.

#### **Section B = Local Commercial and Industrial Streets**

- 1.) Spacing: Street Light standards shall be installed at intersections and at intervals not to exceed 300' between intersections.
- 2.) Locations: Light standards generally are to be located on the opposite side at tee intersections, and two (2) feet before the curb return radius point at other intersections. The standard and conduit will normally be set eighteen (18) inches behind the curb face or as otherwise approved. See *Drawing No's. 1004, and 1007.*
- 3.) Size and Type of Lamp and Luminaire: Each light standard shall be equipped with 15,000 LUMEN HIGH PRESSURE SODIUM VAPOR LAMP. The luminaries shall be end – mounted with a built – in ballast, a photo cell and designed for Type III lighting distribution.

#### **Section C = Major Commercial and Industrial Streets**

- 1.) & 2.) Same as Section " B " above.
- 3.) Size and Type of Lamp and Luminaries: Each light standard shall be equipped with 25,000 LUMEN HIGH PRESSURE SODIUM VAPOR LAMP. The luminaries shall be end – mounted with a built – in ballast, a photo cell and designed for Type III lighting distribution.

#### **Section D = Major Arterial and Highways**

- 1.) Spacing: Street lighting standards shall be installed at intersections and 150' intervals, staggered between intersections.
- 2.) Location: Light standard generally are to be located on the opposite side at tee intersections, and on the opposite side at tee intersections, and two (2) feet before the curb returns at other intersections. See *Drawing No. 1005.* The standard and conduit will normally be set 18 inches behind the curb face or as otherwise approved. See *Drawing No. 1004.*
- 3.) Size and Type of Lamp and Luminaire: Each light standard shall be equipped with a 25,000 LUMEN HIGH PRESSURE SODIUM VAPOR LAMP. The luminaire shall be end – mounted with a built – in ballast, a photo cell, and designed for Type III lighting distribution.

#### **Section E = Retail Shopping Area**

The street lighting in retail shopping areas shall be the same as Section " D " above, unless conditions particular to the area require more or less lighting.

## STREET LIGHTING DETAIL SPECIFICATIONS

### III. MATERIALS AND CONSTRUCTION DETAILS

#### A. General

1. Description of Work: The work to be done consists of the installation of street light standards, complete with internal wiring, luminaries, concrete footing, underground conduits and conductors, photo electric cell actuating equipment, all in accordance with plans and specifications.
2. Materials and Workmanship: All materials shall be new and in accordance with these specifications. All materials and workmanship shall be in accordance with the National Electric Code, current edition and the Uniform Wiring Code, current edition and the Detailed Specifications.

#### B. Materials

1. Street Light Standards: Steel lighting standards shall be 30' in length, of eleven (11) gauge material, tapered shaft with a hand hole in the base. The pole shall be equipped with an 8' or 12' arm with a tenon for a 2" luminaries slip fitter assembly designed for a luminaries height of not less than 30'. Standard shall be equipped with a decorative pole top cap and base plate cover.

Each standard shall be furnished with four (4) 1" diameter high strength anchor bolts with threaded ends. Each bolt shall be fitted with two galvanized nuts and the top 8" of each bolt is to be galvanized. This light standard is to be similar and equal to Pumco FB 1130 BL – 8 or Ameron N 308 or N 3012.

2. Aluminum Light Standard: Aluminum lighting standards shall be round seamless tapered shafts designed for normal luminaries mounting height of 30'. The standards shall be of the anchor base type designed for use with 8' or 12' arms. The pole shall have a top cap and base plate covers. The arms shall be for 2" slip fitter luminaries mounting.

Each standard shall be equipped with four (4) 1" diameter high strength anchor bolts with threaded ends. The top 8" shall be galvanized and fitted with two galvanized notes.

3. High Pressure Sodium Vapor Luminaries: Sodium Vapor luminaries shall be a two piece die – cast aluminum housing designed for built in ballast and equipped with a 2" slip fitter end mounting device. The lower half shall be hinged at the rear of the luminaries for easy access to the optical system and ballast and shall be locked close with a positive locking device, completely sealing the optical system.

The luminaries shall be equipped with a 120 volt ballast, adjustable high grade porcelain socket, meeting the requirements of the standards for roadway light as approved by the ILLUMINATING ENGINEERS SOCIETY, a 100 watt twist lock photo cell. The reflector shall be for Type III lighting distribution. Luminaries up to 250 watt lamps shall be similar to Westinghouse OV – 15 or General Electric M – 250 R, or General Electric M – 400.

4. Lamps: Lamps shall be designed for 120 volt systems, and all luminaries shall be wired for 120 volts, as specified in the plans.
5. Sodium Vapor Lamps: Sodium Vapor lamps shall be similar to:

a.) General Electric LU 10/U for 10,000 lumens nominal.

- b.) General Electric LU 150/U for 15,000 lumens nominal.
- c.) General Electric LU 250/U for 25,000 lumens nominal.

6. Concrete Street Light Footing: All street light footings shall be Class " B " concrete, and shall conform to the details shown on the plans. Anchor bolts and conduit shall be held in place by means of a template during the pouring of the concrete. Open ends of conduit shall be plugged or covered at all times. All base excavation and conduit placement shall be inspected before concrete is placed.

All concrete footings shall cure for a minimum of 72 hours before erection of the standard. After erection and plumbing, the space beneath the base plate and footing shall be dry packed and trim plates installed.

7. Wiring and Fusing: Internal wiring from the base of the light standards to terminals in the luminaries shall be minimum No. 8 THHN copper conductor.

Each light standard shall be fused at the base by means of a heavy duty rubber covered pigtail socket, and Buss KTK or CEPSCO CTK Fuse Amerace LTD. Elastimold 65 or equal as approved by the Engineer. The fuse shall be 10 AMP or of the size required to protect the lighting standard.

### **C. Conduit and Conductors**

1. PVC Conduit: All PVC conduit shall be schedule 40 UL approved or approved equal with factory formed ells and end bells, terminating in the footing. All joints shall be water tight and all opened ends sealed or covered to prevent the entrance of water or foreign matter. Care shall be taken during the laying of conduit to prevent damage and kinks in the conduit.

Prior to pulling the conductors, the conduit shall be blown with air or other gas so as to remove any loose foreign material in the conduit. Prior to covering, all conduit shall be inspected by the City.

The conduit shall have not less than 18" cover and shall be installed on the alignment shown on the plans. The bedding and the first 6" of fill shall be free from rocks or other foreign material. The entire ditch shall be compacted to a density equal to that of the adjacent soil.

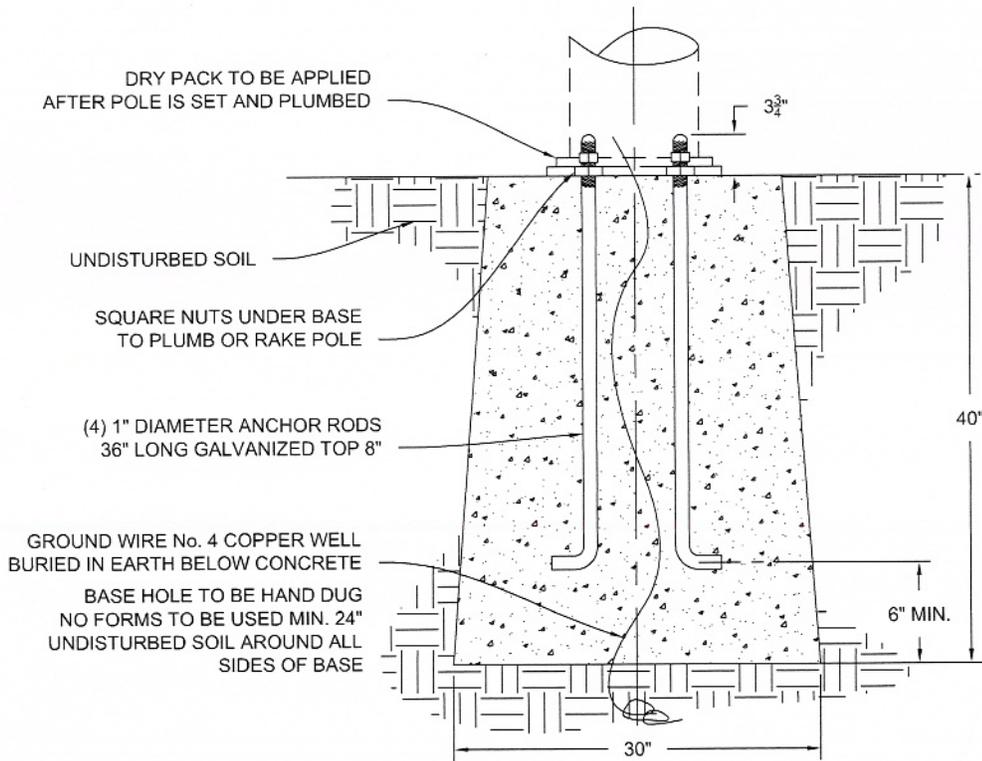
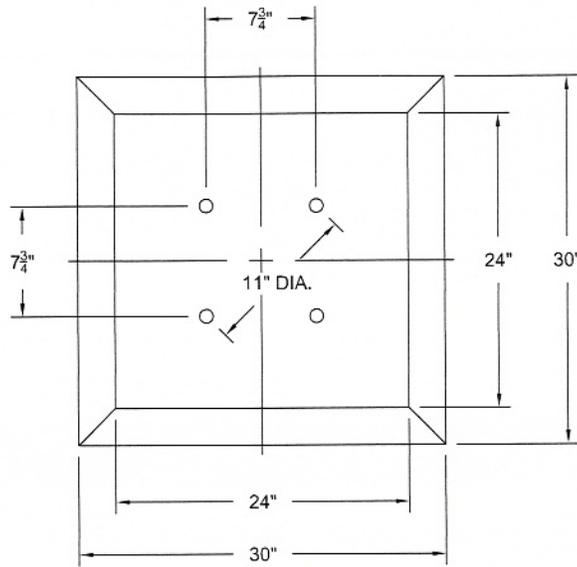
2. Conductors: All conductors shall be COOPER of the American Wire Gauge shown on the plans. Insulation shall be THW grade plastic U.L. approved. Bond wire may be bare or green covered cooper. During the installation of the conductors, care shall be taken to protect the wire from kinks and cuts. No splices will be permitted underground.
3. Pull Boxes: Pull boxes shall be "QUIKSET" or approved equal with bolt down cast iron cover. Cover shall be marked "STREET LIGHTING". Pull boxes shall be open bottom or provided with a drain opening. Pull boxes shall be set on a crushed rock drain, extending a minimum of 1' below the box.
4. Measurement: Conduit installed shall be measured from service connections to base of standard and from Standard to Standard.

### **D. Materials and Workmanship**

1. Service Connections: When the service point for an underground lighting circuit is from an overhead distribution line, the service drop from overhead to underground shall be  $\frac{3}{4}$ " minimum diameter rigid metal conduit, including a factory formed bend to a point 2' below the ground line. The run from the service drop to the next junction point will be PVC conduit.

The metal conduit shall be covered with protective fiber from a point 8' above the ground to an approved service head. The service drop shall be equipped with a service switch or electrical meter as shown on the plans. *For details, see Drawing 1008.*

2. Service Switch: The service switch shall be water tight U.L. approved equipped with a locking device and circuit breaker of the size required to protect the system.



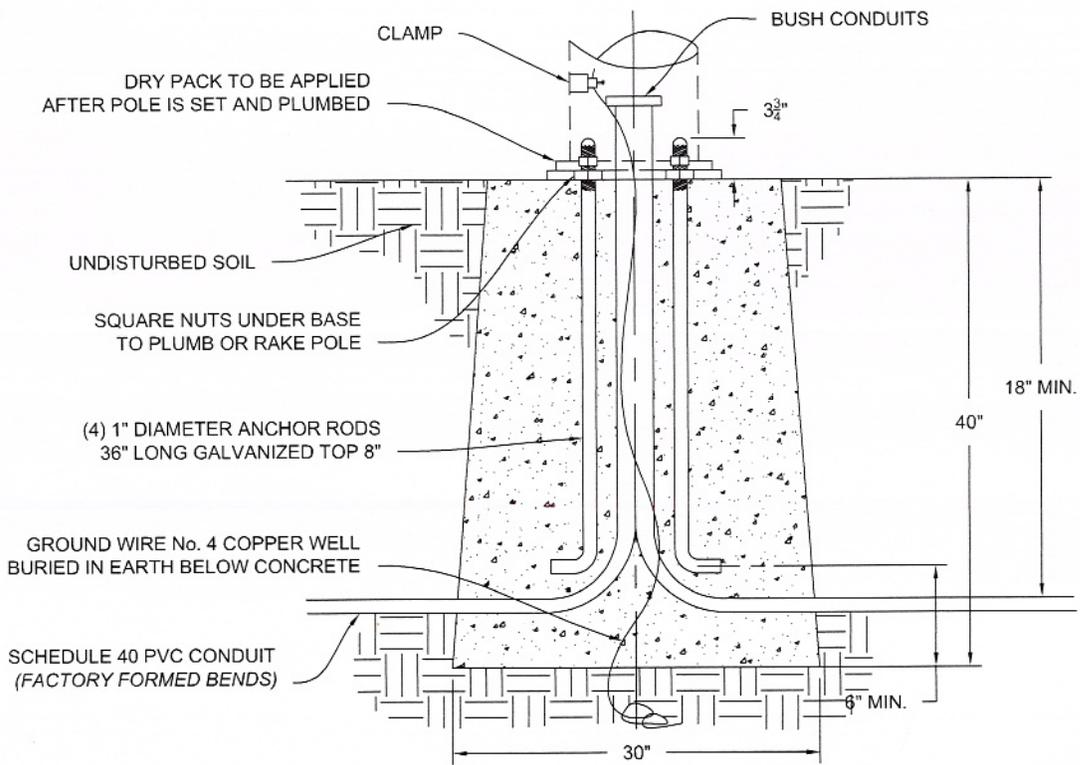
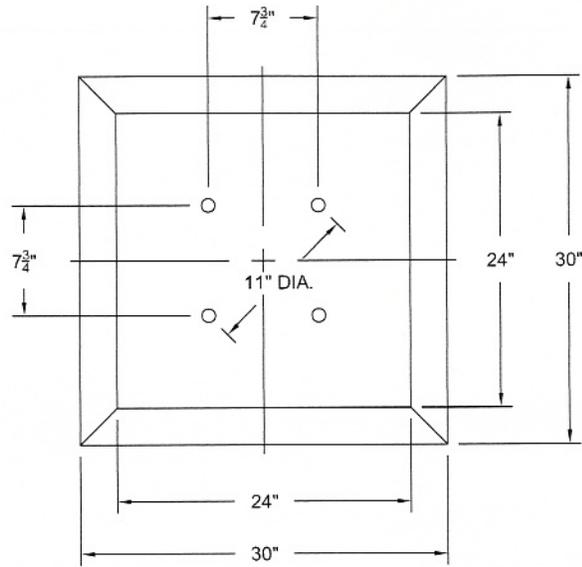
APPROVED BY:  
  
 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS  
 STANDARD MOUNTING BASE  
 FOR STREET LIGHT POLES  
 (OVERHEAD WIRING)



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STANDARD No. 1001



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*Gene T. Ginther* 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

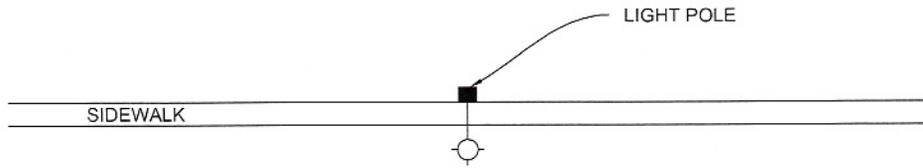
CITY OF  
 DESERT HOT SPRINGS

STANDARD MOUNTING BASE  
 FOR STREET LIGHT POLES  
 (UNDERGROUND WIRING)

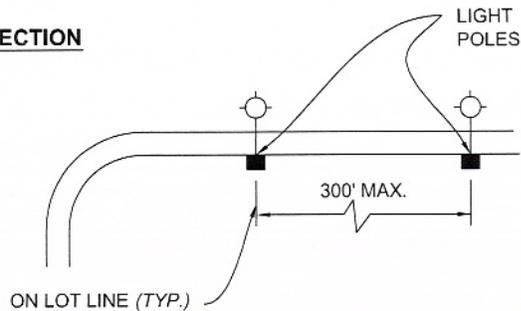
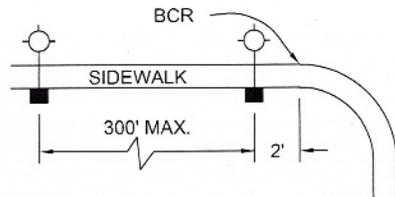


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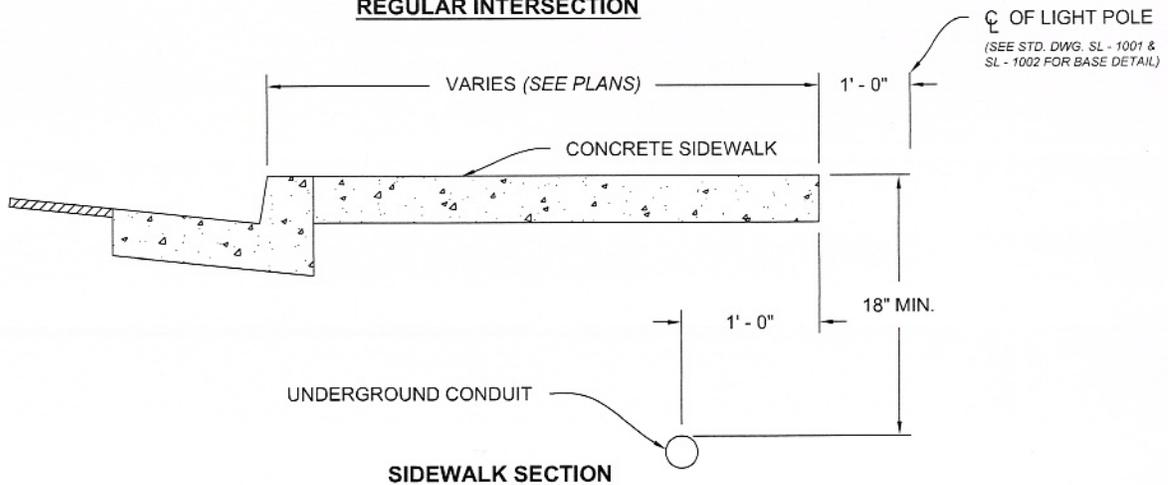
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**" T " INTERSECTION**



**REGULAR INTERSECTION**



**SIDEWALK SECTION**

APPROVED BY:

*Gene T. Ginther* 3/13/07  
**GENE T. GINTHER CITY ENGINEER**  
**PCE 40429 EXP: 3/31/09**

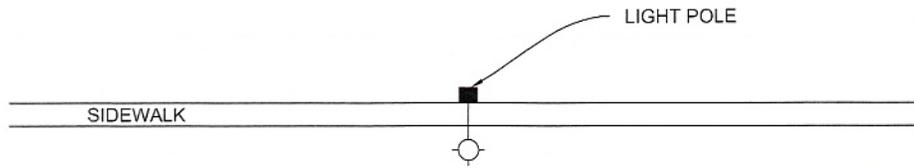
**CITY OF  
 DESERT HOT SPRINGS**

**RESIDENTIAL AREA  
 UNDERGROUND STREET LIGHTING**

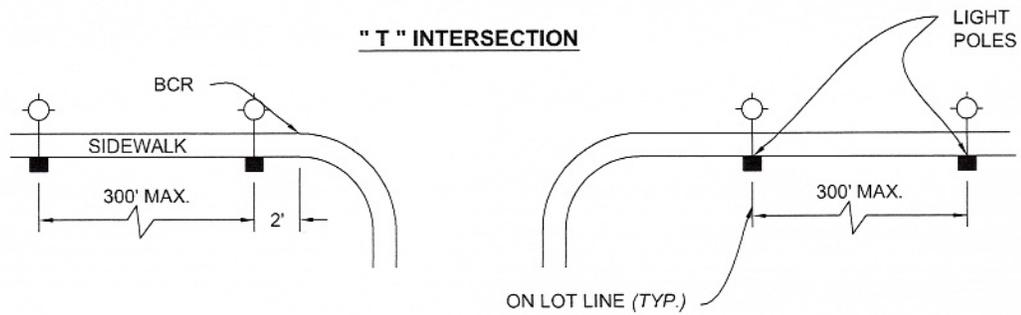
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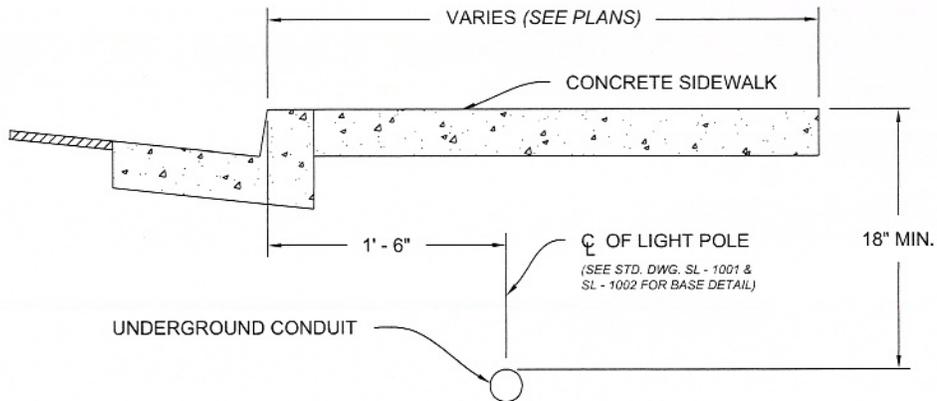
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**" T " INTERSECTION**



**REGULAR INTERSECTION**



**SIDEWALK SECTION**

APPROVED BY:

*Gene T. Ginther* 8/13/07  
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 RCE 40429 EXP: 3/31/09

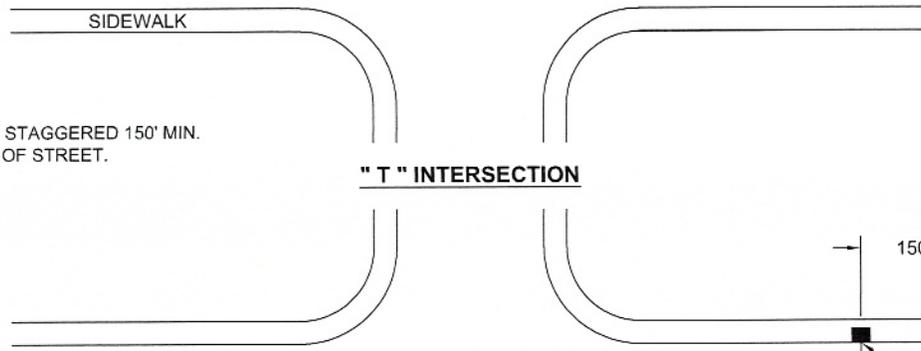
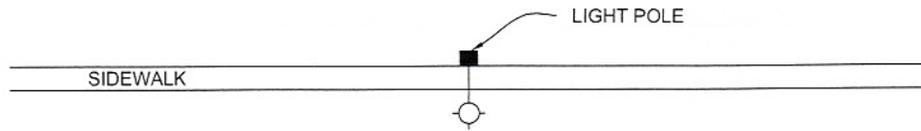
**CITY OF  
 DESERT HOT SPRINGS**

**LOCAL & MAJOR  
 COMMERCIAL &  
 INDUSTRIAL STREETS  
 UNDERGROUND STREET LIGHTING**

**STANDARD No. 1004**



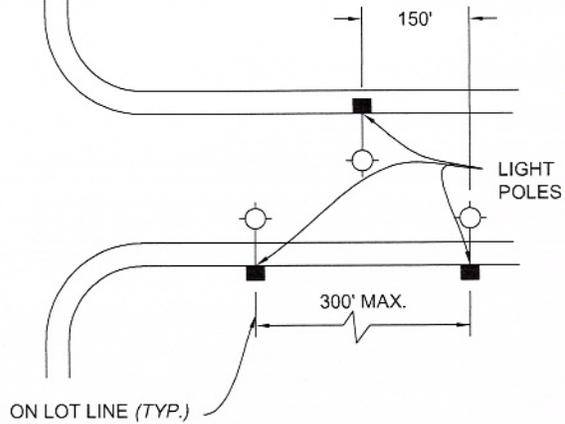
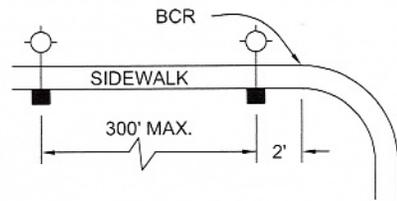
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**NOTE:**

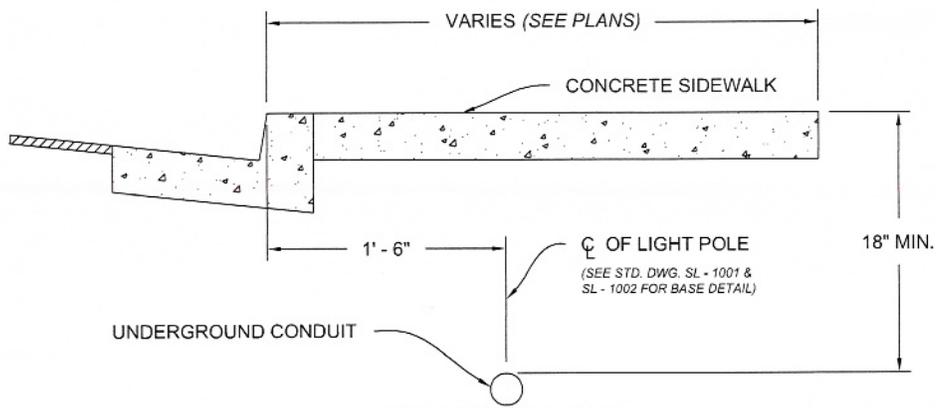
LIGHT TO BE STAGGERED 150' MIN.  
BOTH SIDES OF STREET.

**" T " INTERSECTION**



ON LOT LINE (TYP.)

**REGULAR INTERSECTION**



**SIDEWALK SECTION**

APPROVED BY:

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RCE 40429 EXP: 3/31/09

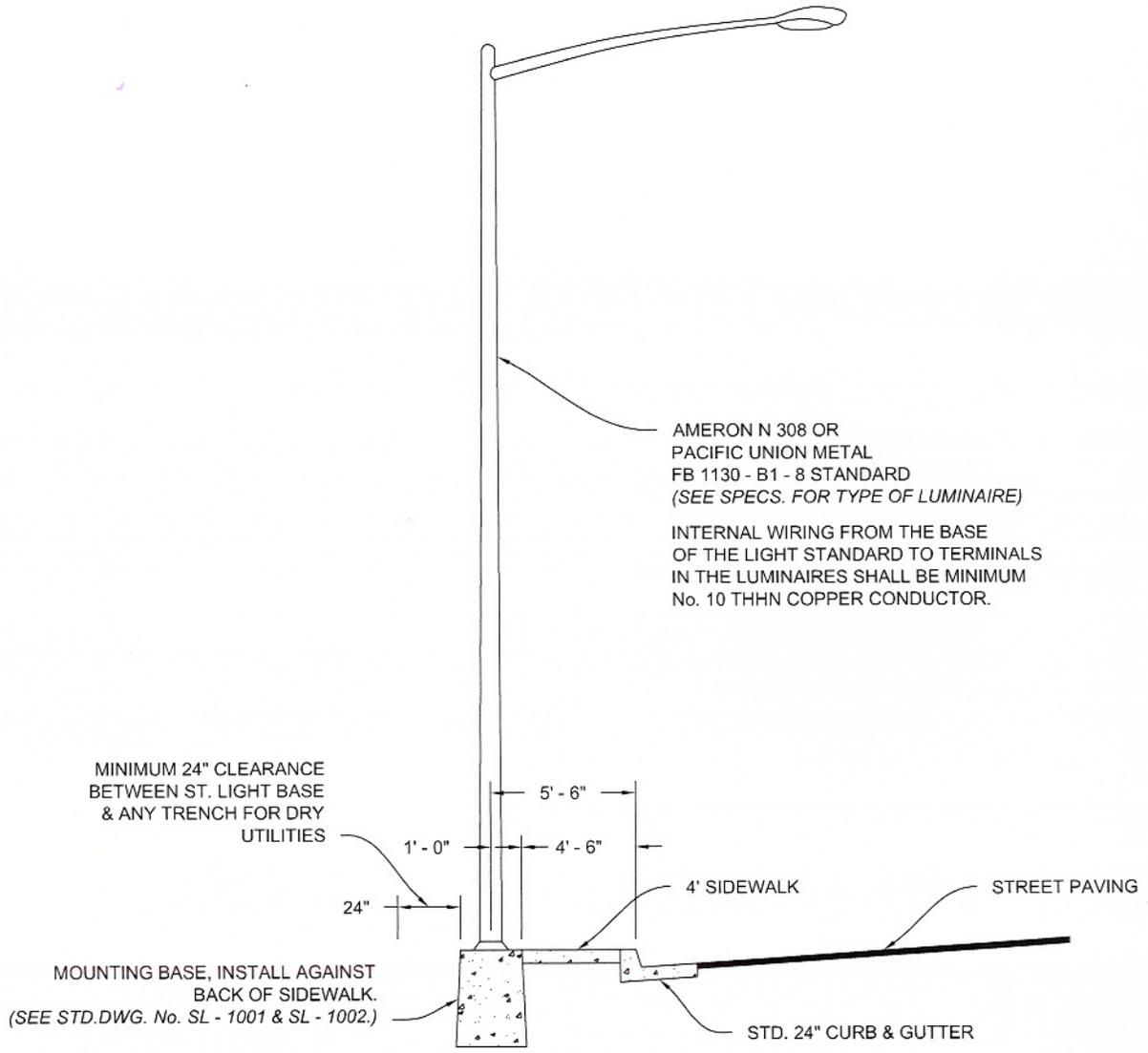
CITY OF  
DESERT HOT SPRINGS

HIGHWAYS & MAJOR ARTERIAL  
& RETAIL AREAS  
UNDERGROUND STREET LIGHTING

STANDARD No. 1005



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GENE T. GINTHER CITY ENGINEER  
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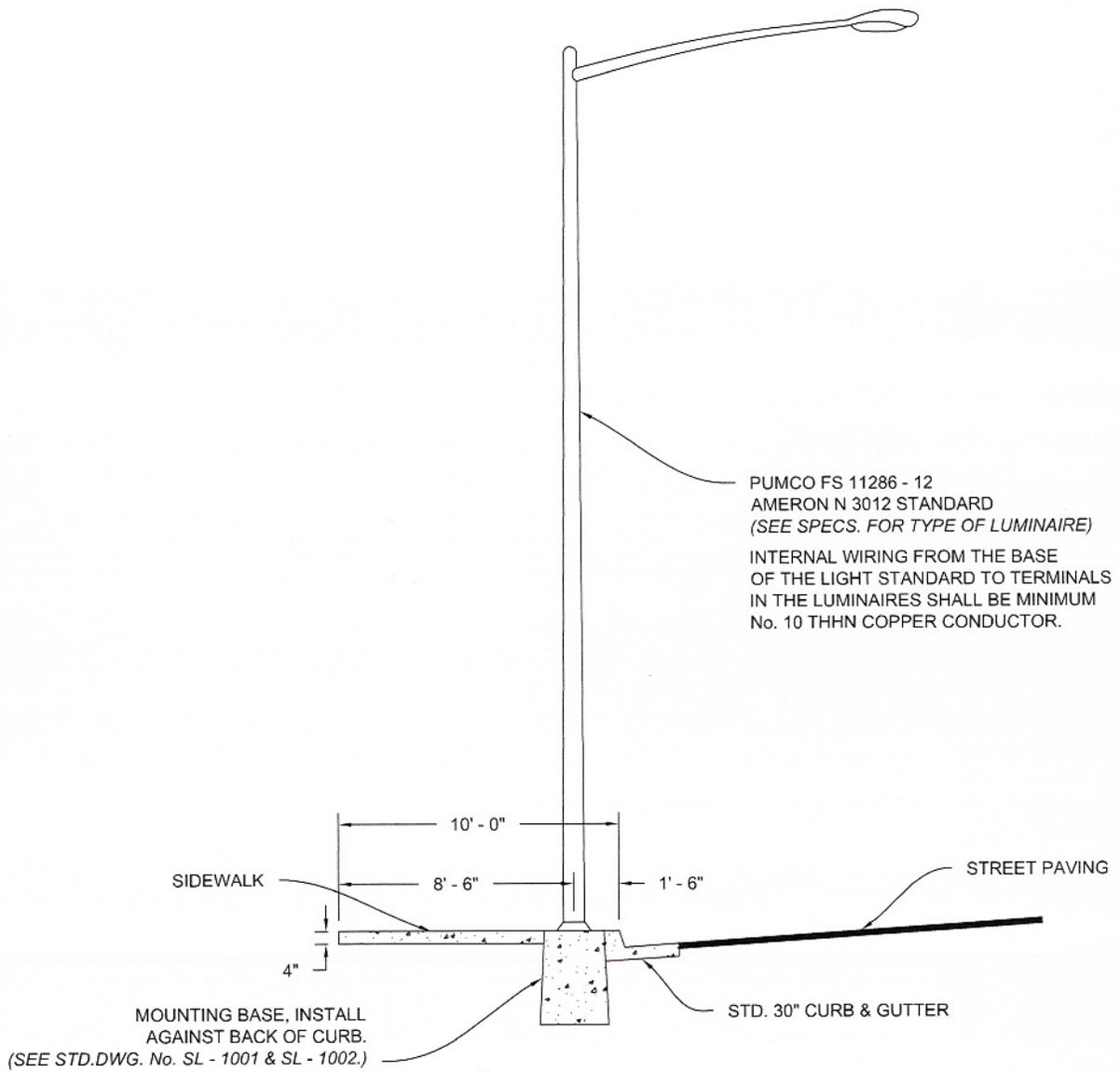
CITY OF  
DESERT HOT SPRINGS

STREET LIGHT  
INSTALLATION  
RESIDENTIAL AREAS

STANDARD No. 1006



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SHEET 1 OF 1	3			



**NOTE:**

IF SIDEWALK IS LESS THAN 8', THEN LIGHT SHALL BE LOCATED BEHIND SIDEWALK.

APPROVED BY:

*Gene T. Ginther* 3/15/07  
GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

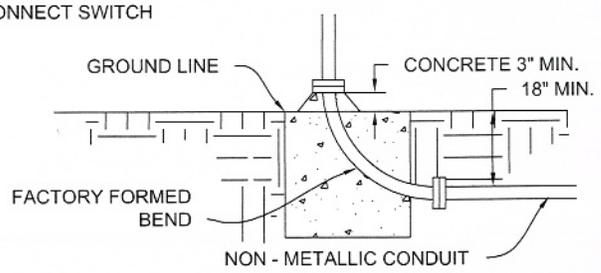
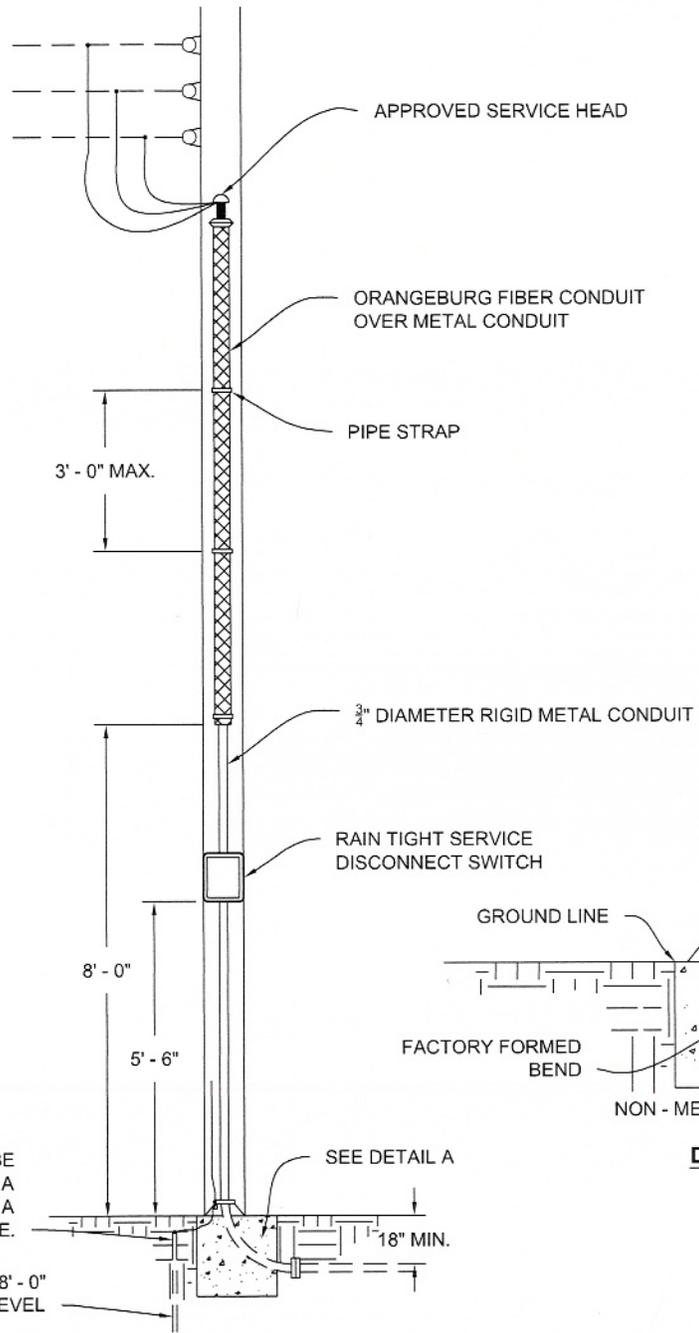
STREET LIGHT  
INSTALLATION

OTHER THAN RESIDENTIAL AREAS

STANDARD No. 1007



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**DETAIL A**

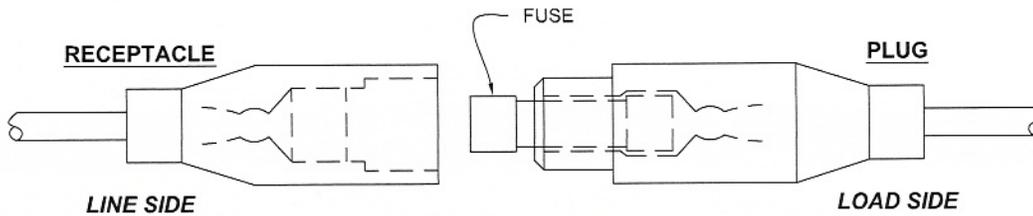
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*Gene T. Ginther* 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS  
**POWER POLE DROP  
 OVERHEAD TO  
 UNDERGROUND**



DRAWN BY:	REVISIONS:	BY:	APR'D	DATE
	1			
	2			
	3			

STANDARD No. 1008



### WATER PROOF FUSE HOLDER

FUSE HOLDER	
MANUFACTURER	PART No.
ELASTIMOLD	64 - B4 - B4
LITTELFUSE	LSLK

FUSE: BUSS KTK OR CEPCO CTK. (10 AMP RECOMMENDED)  
(30 AMP MAX.)

APPROVED BY:

*Gene T. Ginther* 8/13/09

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

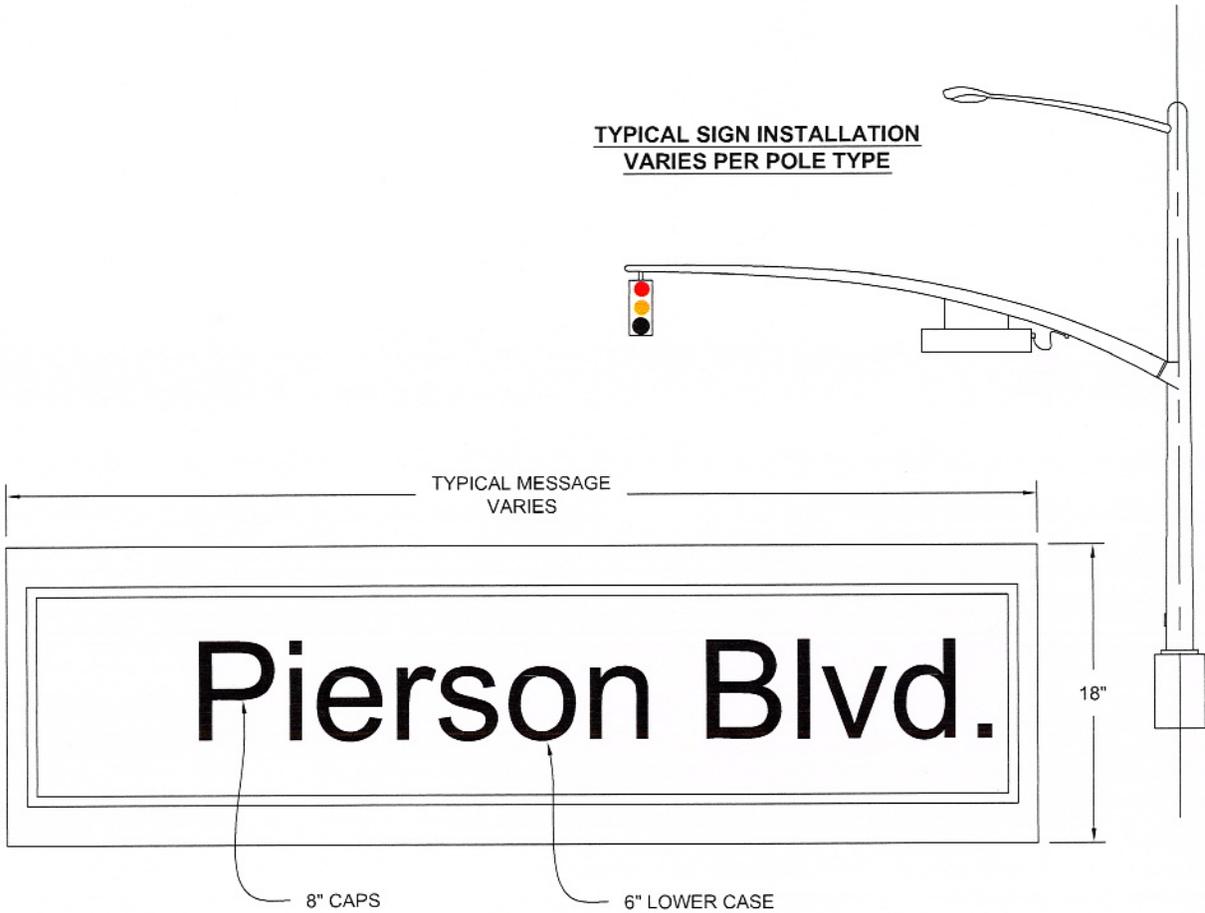
WEATHER PROOF  
FUSE HOLDER

STANDARD No. 1009



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DATE: NONE	2			
SHEET 1 OF 1	3			

TYPICAL SIGN INSTALLATION  
VARIES PER POLE TYPE



**NOTES:**

1. INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE ' NU ART ' TYPE A OR APPROVED EQUAL.
2. INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE ' NU ART ' NAIM SERIES.
3. LETTERING SHALL BE SERIES " E " 8 INCH UPPERCASE CAPS AND 6 INCH LOWERCASE, AND SERIES " D " OR " C " WHEN NECESSARY.
4. SINGLE AND DOUBLE FACES SHALL BE PROVIDED AS SHOWN ON PLANS.
5. ALL SIGNS SHALL BE GREEN BACKGROUND COLOR No. 14109 OF FEDERAL STANDARD 595a.
6. INTERNALLY ILLUMINATED STREET NAME SIGNS TO MEET CALTRANS STANDARD PLANS ES - 33.
7. MANUFACTURER OF SIGNS MUST BE ABLE TO PROVE EVIDENCE OF SUCCESSFUL INSTALLATIONS IN THE FIELD FOR 10 YEARS.

APPROVED BY:

*Gene T. Ginther* 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

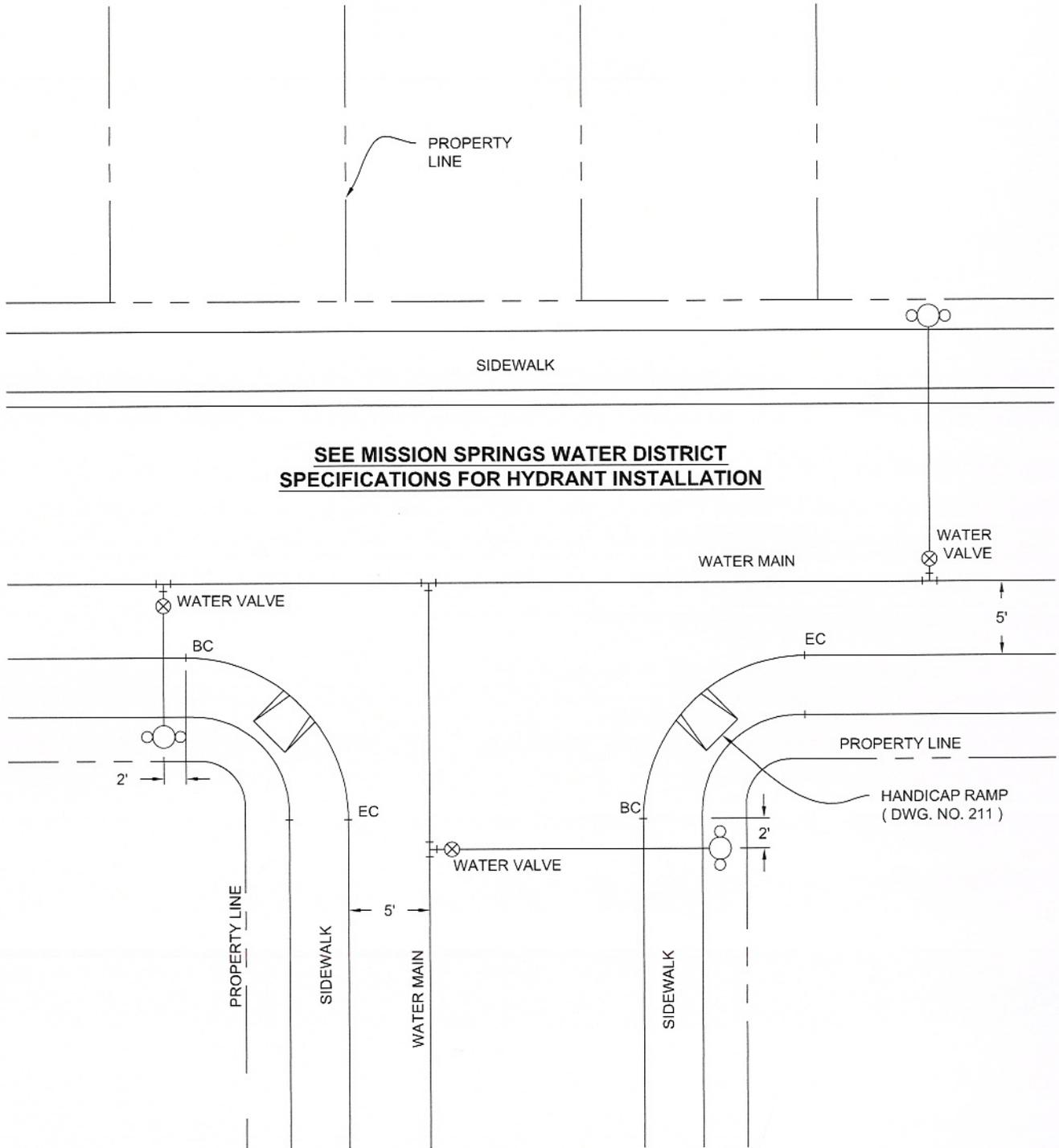
INTERNALLY  
ILLUMINATED  
STREET NAME SIGN

STANDARD No. 1010



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SHEET 1 OF 1				

# **FIRE**



ACCEPTED ALTERNATIVES FOR FIRE  
HYDRANT LOCATION RESIDENTIAL  
DEVELOPMENT

APPROVED BY:

*Gene T. Ginther* 3/13/07  
**GENE T. GINTHER CITY ENGINEER**  
**RCE 40429 EXP: 3/31/09**

**CITY OF  
DESERT HOT SPRINGS**

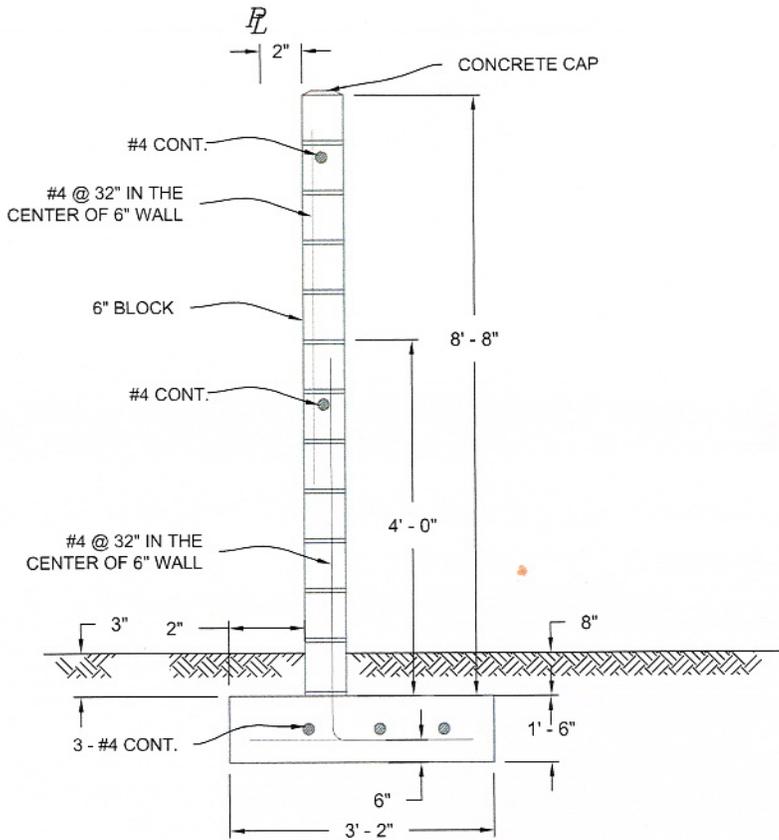
**FIRE HYDRANT  
LOCATION  
RESIDENTIAL**

**STANDARD No. 1100**



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SHEET 1 OF 1	3			

**BLOCK**  
**WALL/GARDEN**  
**WALL, & HILLSIDE**  
**ELEVATIONS**



**GARDEN WALL SECTION**

**NOTE:**

1. SOLID GROUT ALL CELLS CONTAINING STEEL.
2. ALL FOOTING SHALL BE POURED ON UNDISTURBED NATURAL GROUND OR COMPACTED FILL.
3. WALL SHALL BE PLUMB.
4. REBAR SHALL BE ASTM A - 615 GRADE 40.
5. BLOCK SHALL BE GRADE A PER ASTM C - 90 AND CEMENT SHALL BE PORTLAND CEMENT PER ASTM C - 150.
6. MORTAR SHALL CONSIST OF 1 PART CEMENT, 1/4 PART HYDRATED LIME AND 3 1/2 PARTS OF SAND PER ASTM C - 270.
7. GROUT SHALL CONSIST OF 1 PART CEMENT AND 3 PARTS SAND.
8. OMIT HEAD JOINTS IN FIRST COURSE FOR WEEPHOLES.

APPROVED BY:

*Gene T. Ginther* 3/13/07  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

CITY OF  
 DESERT HOT SPRINGS

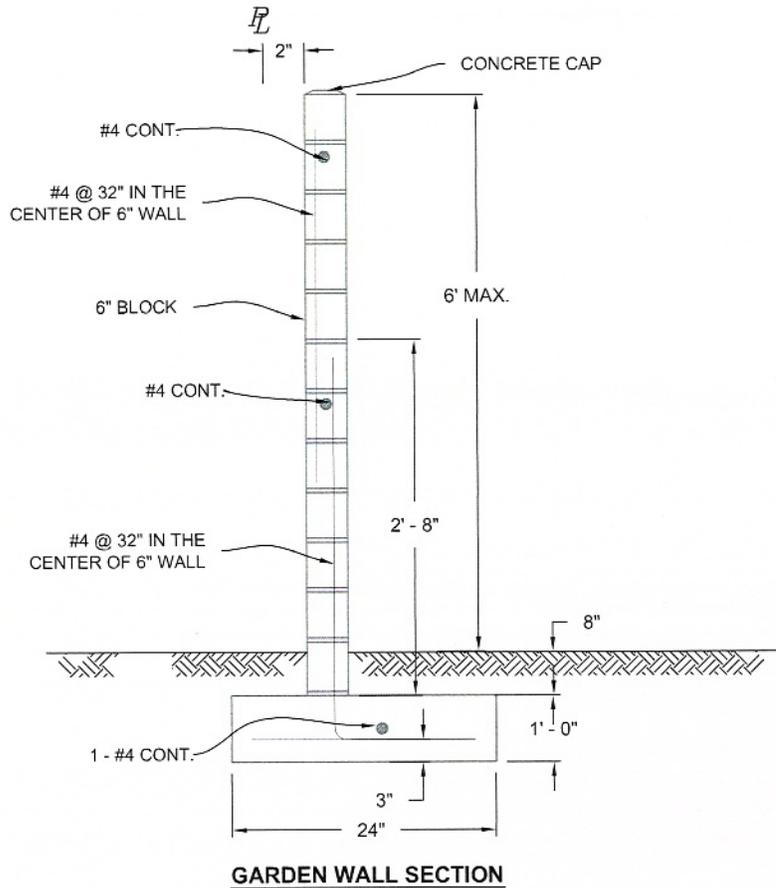
**STANDARD 8'  
 GARDEN WALL**

STANDARD No. 1200



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 SHEET 1 OF 1



**NOTE:**

1. SOLID GROUT ALL CELLS CONTAINING STEEL.
2. ALL FOOTING SHALL BE POURED ON UNDISTURBED NATURAL GROUND OR COMPACTED FILL.
3. WALL SHALL BE PLUMB.
4. REBAR SHALL BE ASTM A - 615 GRADE 40.
5. BLOCK SHALL BE GRADE A PER ASTM C - 90 AND CEMENT SHALL BE PORTLAND CEMENT PER ASTM C - 150.
6. MORTAR SHALL CONSIST OF 1 PART CEMENT, 1/4 PART HYDRATED LIME AND 3 1/2 PARTS OF SAND PER ASTM C - 270.
7. GROUT SHALL CONSIST OF 1 PART CEMENT AND 3 PARTS SAND.
8. OMIT HEAD JOINTS IN FIRST COURSE FOR WEEPHOLES.

APPROVED BY:

*Gene T. Ginther* 3/19/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

CITY OF  
DESERT HOT SPRINGS

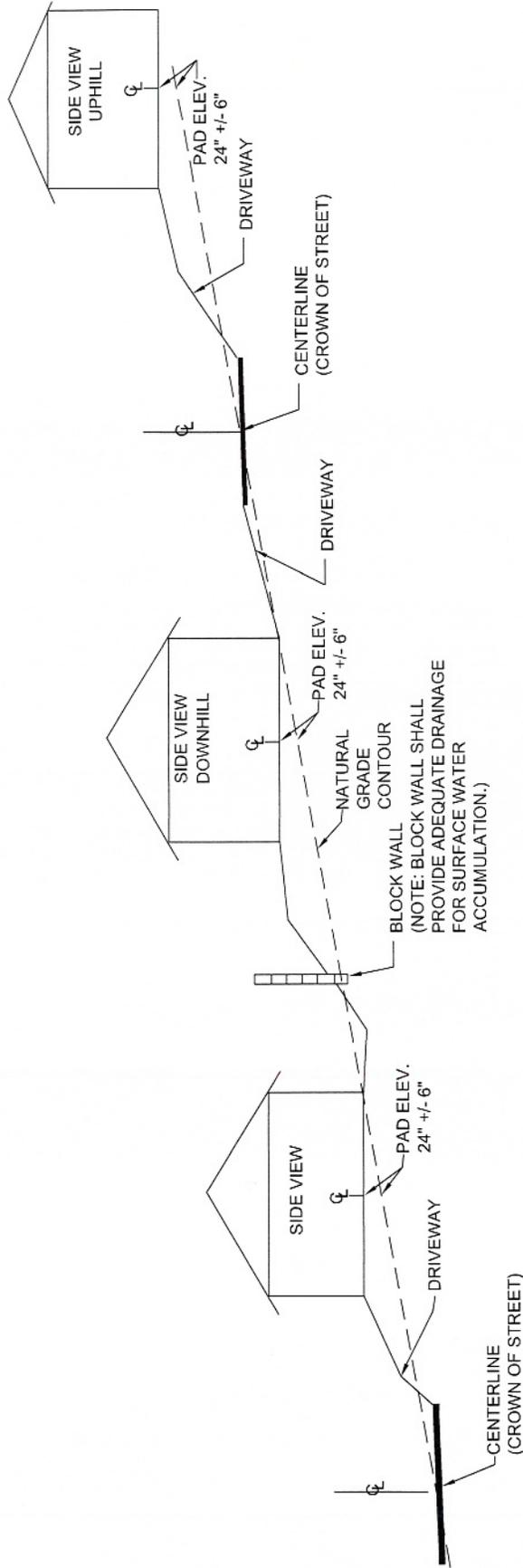
**STANDARD 6'  
GARDEN WALL**

STANDARD No. 1201



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SHEET 1 OF 1



BLOCK WALL CONTOUR  
 (NOTE: BLOCK WALL SHALL PROVIDE ADEQUATE DRAINAGE FOR SURFACE WATER ACCUMULATION.)



CITY OF  
 DESERT HOT SPRINGS  
**HILLSIDE  
 ORDINANCE  
 ELEVATION VIEW 1**

APPROVED BY: *[Signature]* 3/13/09  
 GENE T. GINTHER CITY ENGINEER  
 RCE 40429 EXP: 3/31/09

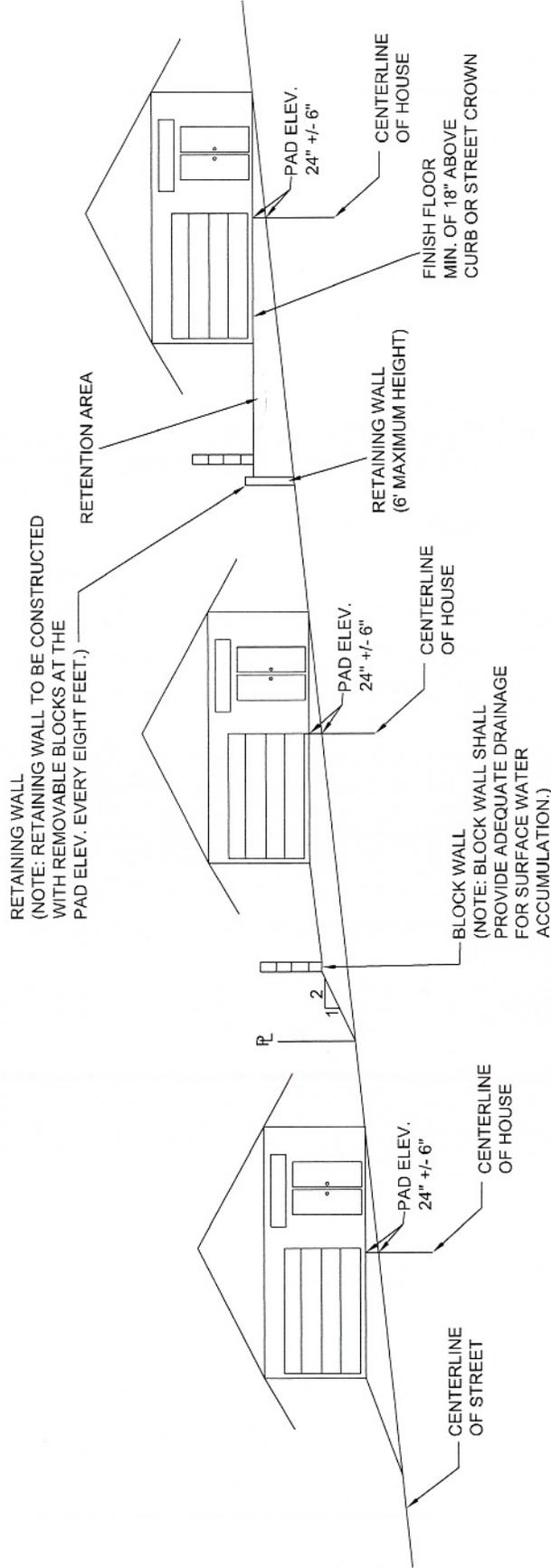
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 SHEET 1 OF 1



CITY OF  
DESERT HOT SPRINGS

## HILLSIDE ORDINANCE ELEVATION VIEW 2

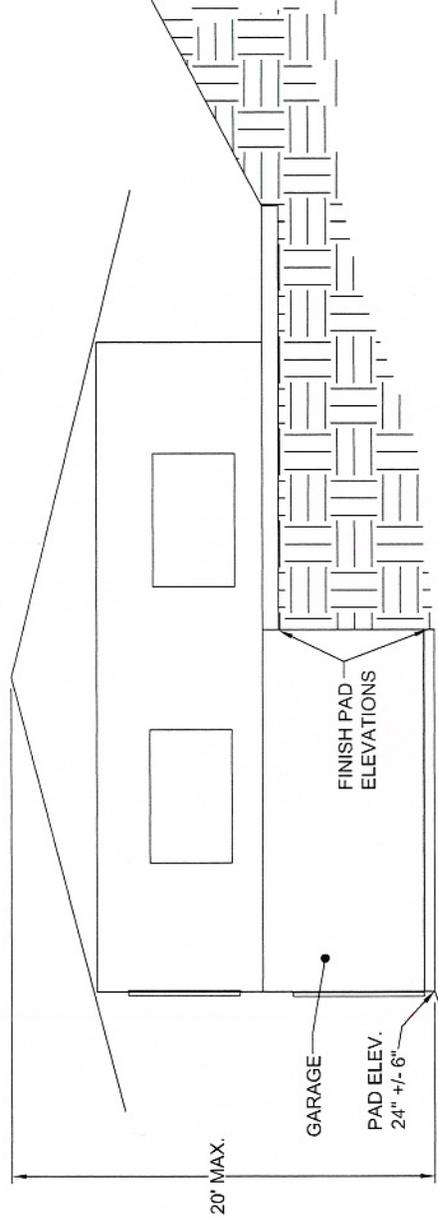
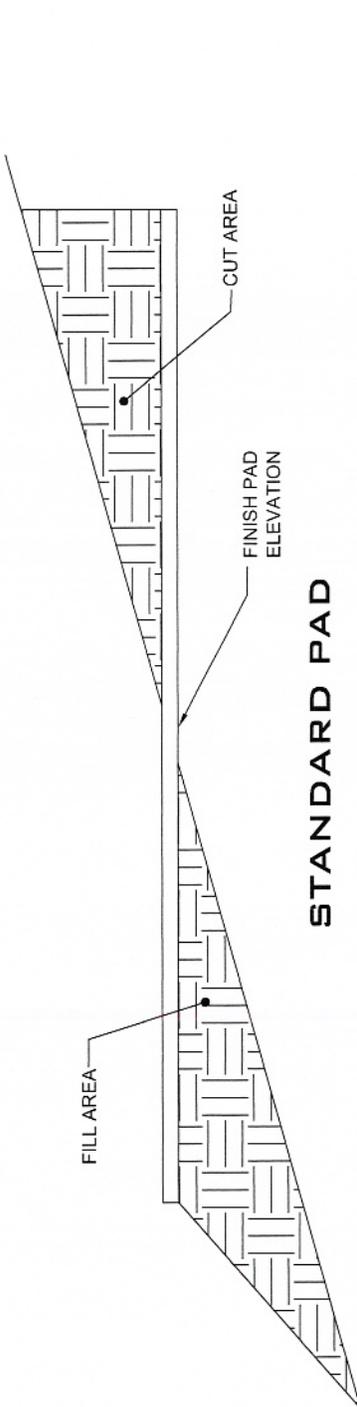


APPROVED BY: *[Signature]* 3/13/07

GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

DATE:	REVISIONS:	BY:	APRD:	DATE
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SCALE: NONE  
SHEET 1 OF 1



**MODIFIED PAD  
SIDE ELEVATION VIEW**



CITY OF  
DESERT HOT SPRINGS  
**HILLSIDE  
ORDINANCE  
ELEVATION VIEW 3A**

APPROVED BY: *[Signature]* 3/13/07

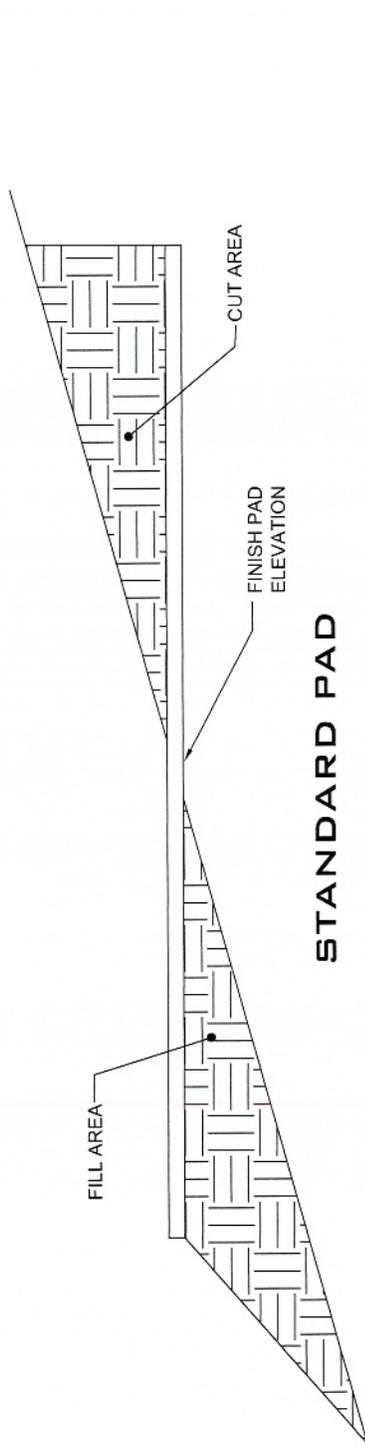
GENE T. GINTHER CITY ENGINEER  
RCE 40429 EXP: 3/31/09

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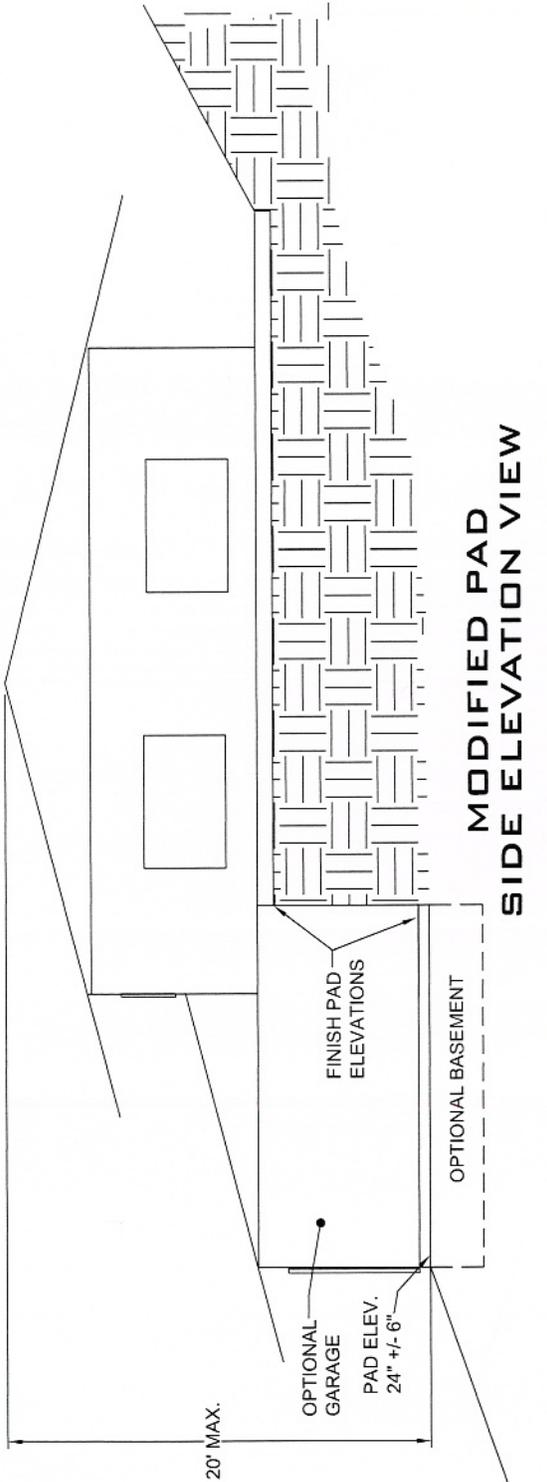
DATE:

SCALE: NONE

SHEET 1 OF 1



**STANDARD PAD**



**MODIFIED PAD  
SIDE ELEVATION VIEW**



CITY OF  
DESERT HOT SPRINGS  
**HILLSIDE  
ORDINANCE  
ELEVATION VIEW 3B**

APPROVED BY: *[Signature]* 3/13/09

GENE T. GINTHER CITY ENGINEER  
PCE 40429 EXP: 3/31/09

DRAWN BY:	REVISIONS:	BY:	APRD	DATE
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SHEET 1 OF 1

## APPENDIX A

### GENERAL GRADING NOTES:

1. ALL GRADING AND RELATED IMPROVEMENTS SHALL CONFORM TO THE FOLLOWING, AS APPROPRIATE:
  - A) UNIFORM BUILDING CODE, CURRENTLY ADOPTED EDITION.
  - B) CITY OF DESERT HOT SPRINGS ORDINANCE 92-2.
  - C) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK), 2000 EDITION.
  - D) AMERICANS WITH DISABILITIES ACT.
  - E) NPDES PERMIT
  - F) FEMA REQUIREMENTS FOR ANY PROPERTY LOCATED WITHIN A FLOOD ZONE.
2. ALL EXTERNAL PROPERTY CORNERS SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO COMMENCEMENT ANY CONSTRUCTION / GRADING.
3. DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES, APPROVED TEMPORARY DRAINAGE CONTROL SHOULD BE PROVIDED TO PREVENT PONDING WATER AND DAMAGE TO ADJACENT PROPERTIES.
4. AN APPROVED PM-10 PLAN SHALL BE ON FILE WITH THE CITY AND ALL DUST CONTROL MEASURES OUTLINED THEREIN SHALL BE FOLLOWED DURING ALL PHASES OF CONSTRUCTION. A CURRENT PM-10 PLAN SHALL BE MAINTAINED ON SITE.
5. NO FILL SHALL BE PLACED ON EXISTING GROUND UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL AND OTHER DELETERIOUS MATERIAL.
6. MAXIMUM CUT AND FILL SLOPE = 2:1
7. FOR CUT AND FILL SLOPES OVER 30' IN VERTICAL HEIGHT, STABILITY CALCULATIONS WITH A FACTOR OF SAFETY OF AT LEAST ONE AND FIVE TENTHS (1.5) SHALL BE SUBMITTED BY A SOILS ENGINEER TO THE BUILDING AND SAFETY DEPARTMENT. BENCHING AND DOWN DRAINS SHALL CONFORM TO THE REQUIREMENTS OF UBC.
8. PROVIDE 2' WIDE BY 0.5' HIGH BERM OR EQUIVALENT ALONG THE TOP OF ALL SLOPES.
9. PROVIDE A BROW DITCH DESIGNED TO HANDLE 100 YR Q STORM FLOWS ALONG THE DAYLIGHT OF CUT SLOPES THAT WILL INTERCEPT DRAINAGE.
10. MINIMUM DRAINAGE SWALE SLOPE SHALL BE = 0.5%. DRAINAGE SWALES SHALL BE A MINIMUM OF 0.3' DEEP BELOW PAD GRADE AND SHALL BE CONSTRUCTED A MINIMUM OF 2' FROM THE TOP OF CUT OR FILL SLOPES.
11. NO OBSTRUCTION OF FLOOD PLAINS OR NATURAL WATER COURSES SHALL BE PERMITTED.
12. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION, ESPECIALLY DURING STORM CONDITIONS. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING GRADING OPERATIONS.
13. FINISH GRADE SHALL BE SLOPED AWAY FROM ALL EXTERIOR WALLS AT NOT LESS THAN 2% OR MORE THAN 20% TO AN APPROVED DRAINAGE SWALE OR SYSTEM.

14. TO PROTECT THE SLOPE FROM EROSION AND INSTABILITY AND PRIOR TO FINAL GRADING INSPECTION, CUT AND FILL SLOPES EQUAL TO OR GREATER THAN 3' IN VERTICAL HEIGHT SHALL BE PLANTED WITH GRASS OR GROUND COVER.
15. EROSION CONTROL: ALL SLOPES TO BE PLANTED SHALL BE PROVIDED WITH AN APPROVED GRASS MIX AND/OR APPROVED GROUND COVER AT 12" ON CENTER. IN ADDITION TO A GRASS MIX OR GROUND COVER, SLOPES EXCEEDING 15' IN VERTICAL HEIGHT SHALL BE PLANTED WITH APPROVED TREES SPACED NOT TO EXCEED 20' ON CENTER OR SHRUBS NOT TO EXCEED 10' ON CENTER, OR A COMBINATION OF SHRUBS AND TREES NOT TO EXCEED 15' ON CENTER. SLOPES EXCEEDING 3' IN VERTICAL HEIGHT SHALL BE PROVIDED WITH AN IN-GROUND IRRIGATION SYSTEM.
16. FOR TRACTS AND COMMERCIAL PROJECTS REQUIRING A PRELIMINARY SOILS REPORT, ALL GRADING SHALL BE DONE IN CONFORMANCE WITH RECOMMENDATIONS OF THE PRELIMINARY SOILS INVESTIGATION BY \_\_\_\_\_ DATED \_\_\_\_\_. TWO SETS OF THE FINAL COMPACTION REPORT SHALL BE SUBMITTED TO THE CITY OF DESERT HOT SPRINGS BUILDING AND SAFETY DEPARTMENT. THE REPORT SHALL INCLUDE FOUNDATION DESIGN RECOMMENDATIONS AND CERTIFICATION THAT GRADING HAS BEEN DONE IN CONFORMANCE WITH RECOMMENDATIONS OF THE SOILS INVESTIGATION REPORT.
17. STEEP SLOPING TERRAIN, UPON WHICH FILL IS TO BE PLACED, MUST BE CLEARED, KEYED AND BENCHED INTO FIRM NATURAL SOIL FOR FULL SUPPORT. PREPARATION SHALL BE APPROVED BY A SUITABLY QUALIFIED AND REGISTERED PROFESSIONAL PRIOR TO PLACEMENT OF FILL MATERIAL.
18. ALL GRADING SHALL BE DONE UNDER THE SUPERVISION OF A COMPETENT SOILS ENGINEER WHO SHALL CERTIFY THAT ALL FILL HAS BEEN PROPERLY PLACED AND WHO SHALL SUBMIT A FINAL COMPACTION REPORT FOR ALL FILLS OVER 1' DEEP.
19. A REGISTERED PROFESSIONAL LAND SURVEYOR SHALL SUBMIT TO THE BUILDING AND SAFETY DEPARTMENT WRITTEN CERTIFICATION OF COMPLETION OF ROUGH GRADING IN ACCORDANCE WITH THE APPROVED GRADING PLAN PRIOR TO REQUESTING INSPECTION AND ISSUANCE OF THE BUILDING PERMIT. CERTIFICATION SHALL INCLUDE LINE, GRADE, ELEVATION AND LOCATION OF CUT/FILL SLOPES.
20. A REGISTERED PROFESSIONAL LAND SURVEYOR SHALL SUBMIT CERTIFICATION OF BUILDING PAD ELEVATION. WHERE SPECIFIC ELEVATIONS ARE REQUIRED, THE ELEVATION (WITH RESPECT TO MEAN SEA LEVEL) SHALL BE GIVEN. IF AN ELEVATION WITH RESPECT TO ADJACENT GROUND SURFACE IS REQUIRED, THE ACTUAL DISTANCE ABOVE THE ADJACENT GROUND SHALL BE GIVEN.
21. A REGISTERED PROFESSIONAL ENGINEER SHALL SUBMIT TO THE CITY OF DESERT HOT SPRINGS BUILDING AND SAFETY DEPARTMENT WRITTEN CERTIFICATION OF COMPLETION OF FINAL GRADING IN ACCORDANCE WITH THE APPROVED PLAN FOR ALL GRADING DESIGNATED AS "ENGINEERED GRADING".
22. THE CONTRACTOR SHALL NOTIFY THE CITY BUILDING AND SAFETY DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF REQUESTING FINISH LOT GRADE AND DRAINAGE INSPECTION. THIS INSPECTION MUST BE APPROVED PRIOR TO BUILDING PERMIT FINAL INSPECTION FOR EACH LOT.

23. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SAFETY SERVICE ALERT AT 1-800-227-2600 TWO DAYS BEFORE DIGGING. THE CONTRACTOR SHALL ALSO NOTIFY THE CITY OF DESERT HOT SPRINGS BUILDING AND SAFETY DEPARTMENT AT (760) 329-6411 AT LEAST 24 HOURS IN ADVANCE OF REQUESTING FINISH LOT GRADING AND DRAINAGE INSPECTION. THIS INSPECTION MUST BE APPROVED PRIOR TO BUILDING PERMIT FINAL INSPECTION FOR EACH LOT.
24. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. SUBJECT TO PROVISIONS OF SECTION 4215 OF THE CALIFORNIA GOVERNMENT CODE, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
25. CONSTRUCTION SIGNING, LIGHTING AND BARRICADING SHALL BE PROVIDED ON ALL PROJECTS AS REQUIRED BY THE CITY OF DESERT HOT SPRINGS BUILDING AND SAFETY DEPARTMENT, OR AS DIRECTED BY THE CITY ENGINEER. AT A MINIMUM, ALL CONSTRUCTION SIGNING, LIGHTING AND BARRICADING ON CITY-OWNED PARCELS OR PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES", IN EFFECT DURING THE TIME OF THE WORK.
26. EVIDENCE OF NPDES AND PM10 PERMIT, IF REQUIRED, SHALL BE SUBMITTED TO BUILDING AND SAFETY DEPARTMENT PRIOR TO ISSUANCE OF THE GRADING PERMIT.
27. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, NO CONSTRUCTION OPERATION SHALL BE PERMITTED ON WEEKENDS OR HOLIDAYS. CONTRACTORS SHALL SUBMIT WORK REQUEST, 24 HOURS IN ADVANCE, TO THE CITY ENGINEER FOR REVIEW AND APPROVAL OF ANY SCHEDULED WORK ON WEEKENDS AND HOLIDAYS. CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO 7:00 AM TO 6:00 PM, MONDAY THROUGH FRIDAY. OVERTIME INSPECTIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.
28. TOPOGRAPHIC INFORMATION: HORIZONTAL AND VERTICAL CONTROL BY;

\_\_\_\_\_ ,

AERIAL TOPOGRAPHY BY; \_\_\_\_\_

**24 HR. EMERGENCY CONTACT:**

NAME:  
ADDRESS:  
PHONE:

**W.D.I.D. No.:** \_\_\_\_\_

## STORM DRAIN NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, OWNER, OR CONTRACTOR TO APPLY TO THE CITY OF DESERT HOT SPRINGS, PUBLIC WORKS DEPARTMENT, FOR AN ENCROACHMENT PERMIT FOR ALL WORK PERFORMED WITHIN PUBLIC RIGHT-OF-WAY AND TO BE RESPONSIBLE FOR SATISFACTORY COMPLIANCE FOR ALL CURRENT ENVIRONMENTAL REGULATIONS DURING THE LIFE OF CONSTRUCTION ACTIVITIES FOR THIS PROJECT.
2. EVIDENCE OF NPDES AND PM10 PERMIT, IF REQUIRED, SHALL BE SUBMITTED TO BUILDING AND SAFETY DEPARTMENT PRIOR TO ISSUANCE OF THE PERMIT.
3. ALL IMPROVEMENTS SHALL CONFORM TO THE FOLLOWING, AS APPROPRIATE:
  - UNIFORM BUILDING CODE, CURRENTLY ADOPTED EDITION.
  - CITY OF DESERT HOT SPRINGS ORDINANCE 92-2.
  - STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK), 2000 EDITION.
  - RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT STANDARDS AND SPECIFICATIONS, LATEST EDITION.
  - RIVERSIDE COUNTY ROAD IMPROVEMENT STANDARDS AND SPECIFICATIONS, LATEST EDITION, COUNTY ORDINANCE NO. 461 AND SUBSEQUENT AMENDMENTS.
  - AMERICANS WITH DISABILITIES ACT.
  - NPDES PERMIT
4. ALL WORK SHALL CONFORM TO THESE PLANS AND THE REQUIREMENTS OF THE CITY OF DESERT HOT SPRINGS STANDARDS AND SPECIFICATIONS.
5. ALL LINES AND GRADES SHALL BE CLEARLY DELINEATED IN THE FIELD BY LICENSED LAND SURVEYOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. DURING ALL PHASES OF CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES, TEMPORARY DRAINAGE CONTROL SHALL BE PROVIDED AS REQUIRED TO PREVENT ANY DAMAGE TO ADJACENT PROPERTIES.
7. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS OUTLINED IN THE CITY'S PM10 REQUIREMENTS. A PM10 PLAN SHALL BE SUBMITTED IF REQUIRED.
8. THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF REQUESTING ANY INSPECTION.
9. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SAFETY SERVICE ALERT AT 1-800-227-2600 TWO DAYS BEFORE EXCAVATION.

10. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. SUBJECT TO PROVISIONS OF SECTION 4215 OF THE CALIFORNIA GOVERNMENT CODE, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO FAILURE TO LOCATE EXACTLY AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATION OF EXISTING UTILITIES, INCLUDING ELEVATIONS, WHICH CROSS THE PROPOSED STORM DRAIN OR ARE FOUND WITHIN THE PROPOSED EXCAVATION BOUNDARIES. THE ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS PRIOR TO COMMENCING OR CONTINUING CONSTRUCTION.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING THE PROPOSED WORK AREA AND RELOCATION COSTS OF ALL EXISTING UTILITIES. PERMITTEE MUST INFORM THE CITY OF CONSTRUCTION SCHEDULE AT LEAST 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.
13. CONSTRUCTION SIGNING, LIGHTING AND BARRICADING SHALL BE PROVIDED ON ALL PROJECTS AS REQUIRED BY THE CITY OF DESERT HOT SPRINGS BUILDING AND SAFETY DEPARTMENT, OR AS DIRECTED BY THE CITY ENGINEER. AT A MINIMUM, ALL CONSTRUCTION SIGNING, LIGHTING AND BARRICADING ON CITY-OWNED PARCELS OR PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" IN EFFECT DURING THE TIME OF THE WORK.
14. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER TO INSTALL AND MAINTAIN ALL CONSTRUCTION, REGULATORY, GUIDE AND WARNING SIGNS WITHIN THE PROJECT LIMITS AND ITS SURROUNDINGS TO PROVIDE SAFE PASSAGE FOR THE TRAVELING PUBLIC AND WORKERS UNTIL THE FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT BY THE CITY.
15. ALL STORM DRAIN PIPE JOINTS TO BE WATER TIGHT WITH GASKETS.
16. PIPE BEDDING SHALL BE CLEAN NATIVE MATERIALS WITH NO EXPOSED ROCKS.
17. PIPE BACKFILL SHALL BE CLEAN NATIVE MATERIAL WITH NO ROCKS OVER 2" DIA. AND SHALL BE COMPACTED TO 90% DENSITY PER ASTM D-1557 AND SHALL BE TESTED AND APPROVED BY THE SOILS ENGINEER PRIOR TO FINAL PAVING.
18. THE FINAL UTILITY LINE BACKFILL REPORT FROM THE PROJECT SOIL ENGINEER SHALL INCLUDE AN APPROVAL STATEMENT THAT THE BACKFILL IS SUITABLE FOR THE INTENDED USE.
19. THE CONTRACTOR SHALL NOT DISTURB EXISTING SURVEY MONUMENTS OR BENCH MARKS NOTED ON THE PLANS OR FOUND DURING CONSTRUCTION. SHOULD DISTURBANCE OCCUR, REMOVAL AND REPLACEMENT SHALL BE DONE ONLY BY A REGISTERED CIVIL ENGINEER WITH AN R.C.E. NUMBER BELOW 33,966, OR A LICENSED LAND SURVEYOR.

20. ALL TRAVELED WAYS MUST BE CLEANED OF ALL DIRT, MUD AND DEBRIS DEPOSITED AS A RESULT OF THE CONSTRUCTION OPERATIONS. CLEANING IS TO BE DONE IN ACCORDANCE WITH THE PM10 PLAN AND TO THE SATISFACTION OF THE CITY ENGINEER.
21. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING SILT CONTAMINATION OF STORM WATER INFILTRATION FACILITIES DURING CONSTRUCTION OF SUBSEQUENT IMPROVEMENTS BY THE CONTRACTOR. IMMEDIATELY PRIOR TO FINAL ACCEPTANCE OF STORM DRAINAGE RETENTION AND INFILTRATION FACILITIES, THE CONTRACTOR SHALL CONDUCT, IN THE PRESENCE OF THE CITY INSPECTOR, A PERFORMANCE TEST DESIGNED TO DEMONSTRATE CLEARLY THE FUNCTIONAL ADEQUACY OF THE FACILITIES.
22. WHENEVER A CONSTRUCTION SITE IS WITHIN ONE-QUARTER (1/4) OF A MILE OF AN OCCUPIED RESIDENCE, NO CONSTRUCTION ACTIVITIES SHALL BE UNDERTAKEN BETWEEN THE HOURS 6:00 PM AND 6:00 AM DURING THE MONTHS OF JUNE THROUGH SEPTEMBER AND BETWEEN THE HOURS OF 6:00 PM AND 7:00 AM DURING THE MONTHS OF OCTOBER THROUGH MAY. EXCEPTIONS TO THESE STANDARDS SHALL BE ALLOWED ONLY WITH THE WRITTEN CONSENT OF THE CITY ENGINEER.

## STREET IMPROVEMENT NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, OWNER OR CONTRACTOR TO APPLY TO THE CITY OF DESERT HOT SPRINGS ENGINEERING DEPARTMENT, PERMIT SECTION, FOR AN ENCROACHMENT PERMIT FOR ALL WORK PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY, AND TO BE RESPONSIBLE FOR SATISFACTORY COMPLIANCE FOR ALL CURRENT ENVIRONMENTAL REGULATIONS DURING THE LIFE OF CONSTRUCTION ACTIVITIES FOR THIS PROJECT. ADDITIONAL STUDIES AND/OR PERMITS MAY BE REQUIRED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING THE PROPOSED WORK AREA AND FOR RELOCATION COSTS OF ALL EXISTING UTILITIES. PERMITTEE MUST INFORM CITY OF DESERT HOT SPRINGS OF CONSTRUCTION SCHEDULE AT LEAST 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION. PHONE: (760) 329-6411 EXT. 224
3. THE DEVELOPER WILL INSTALL STREET NAME SIGNS CONFORMING TO CITY OF DESERT HOT SPRINGS STANDARD NO. 803.
4. ALL WORK SHALL CONFORM TO THESE PLANS, THE REQUIREMENTS OF THE CITY OF DESERT HOT SPRINGS, OR WHERE APPLICABLE, THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT IMPROVEMENT STANDARDS AND SPECIFICATIONS, LATEST EDITION, COUNTY ORDINANCE NO. 461 AND SUBSEQUENT AMENDMENTS.
5. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO NOTIFY THE PROJECT ENGINEER TO INSTALL STREET CENTERLINE MONUMENTS AS REQUIRED BY THE CITY OF DESERT HOT SPRINGS AND RIVERSIDE COUNTY ORDINANCE NO. 461.
6. ALL UNDERGROUND FACILITIES, WITH LATERALS, SHALL BE IN PLACE PRIOR TO PAVING THE STREET, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: SEWER, WATER, ELECTRIC, GAS, STORM DRAINS.
7. CURB DEPRESSIONS AND DRIVEWAY APPROACHES WILL BE INSTALLED AND CONSTRUCTED ACCORDING TO CITY OF DESERT HOT SPRINGS STANDARD NO. 207, 208, 209 OR 210 AS APPLICABLE.
8. TO PROVIDE SAFE PASSAGE FOR THE TRAVELING PUBLIC AND WORKERS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER TO INSTALL AND MAINTAIN ALL CONSTRUCTION REGULATORY, GUIDE AND WARNING SIGNS WITHIN THE PROJECT LIMITS AND SURROUNDING UNTIL THE FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT BY THE CITY OF DESERT HOT SPRINGS.
9. ALL STREET SECTIONS ARE TENTATIVE. ADDITIONAL SOILS TESTS SHALL BE TAKEN BY THE DEVELOPER/OWNER AFTER ROUGH GRADING TO DETERMINE THE EXACT STREET SECTION REQUIREMENTS. USE RIVERSIDE COUNTY STANDARD NO. 401 IF EXPANSIVE SOILS ARE ENCOUNTERED.

10. ASPHALTIC EMULSION (FOG SEAL) SHALL BE APPLIED NOT LESS THAN FOURTEEN DAYS FOLLOWING PLACEMENT OF THE ASPHALTIC SURFACING. FOG SEAL AND PAINT BINDER SHALL BE APPLIED AT A RATE OF 0.05 AND 0.03 GALLON PER SQUARE YARD RESPECTIVELY. ASPHALTIC EMULSION SHALL CONFORM TO SECTION 39 OF THE STATE STANDARD SPECIFICATIONS.
11. PRIME COAT IS REQUIRED PRIOR TO PAVING ON ALL GRADES IN EXCESS OF TEN PERCENT.
12. INSTALL STREET TREES IN ACCORDANCE WITH THE CITY OF DESERT HOT SPRINGS ORDINANCE(S), WHERE APPLICABLE.
13. STREET LIGHTS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED IMPROVEMENT PLANS.
14. AS DETERMINED BY THE CITY INSPECTOR, THE DEVELOPER IS RESPONSIBLE, AT A MINIMUM, FOR ROAD IMPROVEMENTS TO CENTERLINE, AND MAY BE REQUIRED TO RECONSTRUCT EXISTING PAVEMENT, INCLUDING BASE, AND MATCHING OVERLAY REQUIRED MEETING THE STRUCTURAL STANDARDS FOR THE CURRENTLY ASSIGNED TRAFFIC INDEX.
15. WITHOUT SEPARATE LANDSCAPE PLANS, ONLY LANDSCAPING CONSISTING OF APPROVED DROUGHT TOLERANT PLANT MATERIALS MAY BE INSTALLED WITHIN THE PARKWAYS ON LOCAL RESIDENTIAL STREETS. ALL OTHER TYPES OF LANDSCAPING IN THESE AREAS, AND ALL LANDSCAPING ON ALL OTHER STREETS, SHALL REQUIRE SEPARATE LANDSCAPE PLANS. ALL LANDSCAPING ENCROACHMENTS SHALL CONFORM TO CITY OF DESERT HOT SPRINGS STANDARDS RELATING TO THE ADMINISTRATION OF LANDSCAPE ENCROACHMENTS.
16. ANY PRIVATE DRAINAGE FACILITIES SHOWN ON THESE PLANS FOR INFORMATION ONLY. BY SIGNING THESE IMPROVEMENT PLANS, NO REVIEW OR APPROVAL OF THOSE PRIVATE FACILITIES IS IMPLIED OR INTENDED BY THE CITY OF DESERT HOT SPRINGS.
17. CONSTRUCTION PROJECTS DISTURBING MORE THAN ONE ACRE MUST OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. OWNERS/DEVELOPERS ARE REQUIRED TO FILE A NOTICE OF INTENT (NOI) WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB), PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND A MONITORING PLAN FOR THE SITE.
18. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS OUTLINED IN THE CITY'S PM10 REQUIREMENTS. A PM10 PLAN SHALL BE SUBMITTED IF REQUIRED.
19. TO IMPROVE TRAFFIC SAFETY ON THE ROADS UNDER THE JURISDICTION OF THE DEVELOPER, THE DEVELOPER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ADDITIONAL SIGNS AND MARKINGS NOT SHOWN HEREON, OR ON ROADWAYS ADJACENT TO THE PROJECT BOUNDARIES, UPON THE REQUEST OF THE CITY INSPECTOR OR HIS DESIGNEE.

20. EXISTING STORM DRAIN PIPES / CULVERTS (WHETHER TO BE CONNECTED TO, EXTENDED, ADJUSTED, DRAINED TO, OR JUST IN THE PROJECT VICINITY) MUST BE REPAIRED, AND / OR CLEARED TO MAKE THEM FUNCTIONAL AND ACCEPTABLE AS DIRECTED BY THE CITY INSPECTOR.
21. AN APPROVED SOIL STERILIZER SHALL BE USED ON ALL SUB GRADE SURFACES PRIOR TO PLACEMENT OF PAVING.
22. WHENEVER A CONSTRUCTION SITE IS WITHIN ONE-QUARTER (1/4) OF A MILE OF AN OCCUPIED RESIDENCE, NO CONSTRUCTION ACTIVITIES SHALL BE UNDERTAKEN BETWEEN THE HOURS 6:00 PM AND 6:00 AM DURING THE MONTHS OF JUNE THROUGH SEPTEMBER AND BETWEEN THE HOURS OF 6:00 PM AND 7:00 AM DURING THE MONTHS OF OCTOBER THROUGH MAY. EXCEPTIONS TO THESE STANDARDS SHALL BE ALLOWED ONLY WITH THE WRITTEN CONSENT OF THE CITY ENGINEER.

NOTIFICATIONS:

THE CONTRACTOR IS REQUIRED TO NOTIFY THE EXISTING ORGANIZATIONS IN THE AREA BEFORE THE START OF ANY WORK.

THE UTILITIES IN THE AREA ARE:

WATER AND SEWER: MISSION SPRINGS WATER DISTRICT  
(760) 329-6448

COUNTY ROADS: RIVERSIDE COUNTY TRANSPORTATION  
DEPARTMENT  
(760) 863-8267

CITY STREETS: CITY OF DESERT HOT SPRINGS  
(760) 329-6411

ELECTRICITY: EDISON INTERNATIONAL  
(800) 655-4555

GAS: THE GAS COMPANY  
(909) 335-7729

TELEPHONE: VERIZON  
(760) 864-1715

CABLE TV: TIME-WARNER  
(760) 340-1312

FLOOD CONTROL: RIVERSIDE COUNTY FLOOD CONTROL AND  
WATER CONSERVATION DISTRICT  
(909) 955-1200

UNDERGROUND UTILITIES: UNDERGROUND SERVICE ALERT  
(800) 227-2600

## APPENDIX B



# CITY OF DESERT HOT SPRINGS

## Rough Grading Plan - QAQC Checklist

<b>Job Number:</b>	<b>Project Name:</b>
<b>Plan &amp; Phase:</b>	

Checked by: \_\_\_\_\_  
 Sheets Checked: \_\_\_\_\_

v - Ok    X - Requires Confirmation

	RP#	Check	Comments
<b>I. General Sheet Requirements</b>			
<b>A. Drafting/Layout requirements</b>			
1 Plan name with Tract, PM, or SDP number & neighboring TM, PM, or SDP.			
2 Type of improvement plan, I.E. Rough Grading Plan.			
3 Section, Township, and Range.			
4 Include design Engineer			
5 Basis of bearing and approved bench mark.			
6 Signature blocks			
a. Check for City/County signature block. Approved by: City Engr. RCE# __, __ Exp Date / /			
b. Check for design engineers signature block and seal. Check expiration date.			
c. Other agency's signature block(s) if required.			
7 USA Dig Alert note with phone number 1-800-227-2600			
8 Sheets numbered numerically in increasing order. Sheet ___ of ___			
9 Plot date.			
<b>II. TITLE SHEET</b>			
<b>A. Notifications Provided</b>			
<b>B. Grading notes provided - Make sure soils report/engineer information is filled out.</b>			
<b>C. Index Map</b>			
1 Scale is 1"=500' or smaller - use standard scale.			
2 Sheet coverage is shown.			
3 Street Names and Lot #s shown - call out adjacent tracts.			
4 Locations of primary storm drain systems (Catch Basins, Culverts, Inlets, Retention Basins, Overflows, Etc.) are shown on Index Map. Show flow direction on Index Map			
<b>D. Vicinity Map</b>			
1 Arterial Streets shown.			
2 Orient North as on Index Map.			
3 Project locations indicated on map.			

Continued: Title Sheet	RP#	Check	Comments
4 Scale notation provided ("NTS" is ok).			
5 Provide city limit boundaries.			
E. Legend of Symbols used, includes Construction Notes, Symbols, Typical Abbreviations, Special Line Types, Hatching Legend, Etc.			
F. Owner's Information			
1 Site Address			
2 Owner's Name, Address, Telephone #			
G. Utility Agency Information - per city requirements Check for existing standard disclaimer.			
H. Earthwork Volumes - Show raw volumes only. Check for Earthwork standard disclaimer.			
I. Rough Grading typical sections and details are properly called out and detailed. (may be shown on separate sheet if room does not permit on title sheet)			
a. Confirm that existing information is shaded, proposed is solid and future is dashed.			
J. FEMA Flood Zone Designation.			
K. Typical lot grading detail(s).			
L. Soil Engineer Stamp & Signature Block.			
<b>III. PLAN SHEETS</b>			
A. Plan View Shows the following:			
1 North Arrow (preferred to point up or to the right or left). Verify that north arrow rotation is correct.			
2 4" Bar Scale is properly shown & confirm that scale matches plan.			
3 Show complete Boundary, Centerline and Lot Line Annotation.			
4 Show all Lot Numbers and Street Names.			
5 Show Right of Way and all Easements including Landscape, Drainage, Public Utility, Street Centerlines, Etc. (on plans).			
a. Provide same detail in sections & details.			
6 Verify line types on legend match line types on plans.			
7 Properly show existing boundary information and map references.			
8 Dimension Street and Right of Way widths - proposed & existing as applicable.			
9 Existing Contours shall be shown in shaded lines.			
10 Show proposed contours in solid lines. Show daylight line limits with cut/fill indicators.			
11 Pad Elevations			
a. Show pad and finished floor elevations to the nearest 0.1'.			
b. Confirm floor is 0.50' above pad elevation unless otherwise noted on plans.			
c. Confirm Lot Pad Elevations step uniformly - (look for 1 ft. bust)			
12 PE = 1.2 ft + High Side TC (min.)			

Continued: Plan Sheet

	RP#	Check	Comments
<b>13</b> Elevations shown at:			
<b>a.</b> B.C., E.C., and Grade Breaks call out Top of Curb at Lot Lines			
<b>b.</b> Show each Side Grade Elevation, Top of Footing, and Finished Grade Elevations for all Privacy Walls. Retaining walls require Top of wall elevation to be shown.			
<b>c.</b> Provide existing offsite elevations outside of project.			
<b>d.</b> Call out retention basin bottom elevation and 100 year water surface.			
<b>15</b> Show Grade Sections & Slopes for Tract Boundaries, Retaining Walls, Setbacks & other Features. Call out grades on all section features.			
<b>16</b> Show grades and flow direction at gutters and other rough grade flow areas			
<b>17</b> Tops and Toes of Slopes shall be clearly defined. 2:1 Max. Slope. Show slope between lots if pad elevation difference is >1 foot.			
<b>18</b> No drainage over any slopes.			
<b>19</b> Show 0.5' high by 2' wide drainage berm on top of all slopes.			
<b>20</b> Provide a 2' wide (min.) bench at the top of all slopes between Lots.			
<b>21</b> Join elevations and relationships to surrounding properties are shown with existing TC, FL, TP, and % Slope, etc.			
<b>22</b> Show locations of all existing and proposed Structures, Buried Tanks, Wells, and Utilities. Include disposition of each.			
<b>23</b> Locations of Block Walls, Retaining Walls, and other structures are clearly shown.			
<b>24</b> Locate and identify primary storm drain systems (Catch Basins, Culverts, Cross Gutters, Inlets, Retention Basins, Overflows, Sand Filters, Leach Lines, Etc.).			
<b>25</b> Include Construction Notes on each sheet.			
<b>26</b> Call out Street Dimensions in Plan Views.			



# CITY OF DESERT HOT SPRINGS

## Precise Grading Plan - QAQC Checklist

<b>Job Number:</b>	<b>Project Name:</b>
<b>Plan &amp; Phase:</b>	

Checked by: \_\_\_\_\_ √ - Ok    X - Requires Confirmation

Sheets Checked: _____	RP#	Check	Comments
<b>I. General Sheet Requirements</b>			
<b>A. Drafting/Layout requirements</b>			
1. Plan name with Tract, PM, or SDP number & neighboring TM, PM, or SDP.			
2. Type of improvement plan, Precise Grading Plan.			
3. Section, Township, and Range.			
5. Basis of bearing and approved bench mark.			
6. Signature blocks			
a. City Engineer & Director of Public Works. Approved by: City Engr. RCE# __, __ Exp Date / /			
b. Check for engineers signature block and seal. Check expiration date.			
c. Other agency's signature block(s) if required.			
7. USA Dig Alert note with phone number 1-800-227-2600			
8. Sheets numbered numerically in increasing order. Sheet __ of __			
9. Plot Date			
<b>II. TITLE SHEET</b>			
<b>A. Notification List Provided</b>			
<b>B. Grading notes provided - Make sure soils report/engineer information is filled out.</b>			
<b>C. General paving notes provided &amp; up to date. (Commercial sites only)</b>			
<b>D. Index Map</b>			
1. Scale is 1"=500' or smaller - use standard scale.			
2. Sheet coverage is shown.			
3. Street Names and Lot #s shown - call out adjacent tracts.			
<b>E. Vicinity Map</b>			
1. Arterial Streets shown.			
2. Orient North as on Index Map.			

Continued: Title Sheet	RP#	Check	Comments
3. Project locations indicated on map.			
4. Scale notation provided ("NTS" is ok).			
5. Provide city limit boundaries and city designation.			
F. Legend of Symbols used, includes Construction Notes, Symbols, Typical Abbreviations, Special Line Types, Hatching Legend, Etc.			
G. Owner's Information			
1. Site Address			
2. Owner's Name, Address, Telephone #			
H. Utility Agency Information - per city requirements Check for existing standard disclaimer.			
I. Earthwork Volumes - If no rough grading plan Check for Earthwork standard disclaimer.			
1. Make sure per lot CY assumptions are provided.			
J. Grading typical sections and details to scale are properly called out and detailed. (may be shown on separate sheet if room does not permit on title sheet)			
1. Confirm that existing information is shaded, proposed is solid and future is dashed.			
K. FEMA Flood Zone Designation.			
L. Typical lot grading detail(s).			
M. Underground service alert note.			
N. Notice to contractor note.			
O. Soil Engineer Stamp & Signature Block.			
<b>III. PLAN SHEETS</b>			
<b>A. All Plan Views Show the following:</b>			
1. North Arrow (preferred to point up or right or left)			
a. Verify that north arrow rotation is correct.			
2. 4" Bar Scale is properly shown & confirm that scale matches plan.			
3. Show complete Boundary, Centerline and Lot Line Annotation.			
4. Show all Lot Numbers and Street Names.			
5. Show Right of Way and all Easements including Landscape, Drainage, Public Utility, Street Centerlines, Etc., on plans.			
a. Provide same detail in sections & details.			
6. Confirm no encroachment of P.U.E. by building, fence, patio, wall or other structure without specific written approval.			
7. Verify line types on legend match line types on plans.			
8. Properly show existing boundary information and map references.			
9. Dimension Street and Right of Way widths - proposed & existing as applicable.			
10. Existing Contours for projects not rough graded shall be shown in shaded lines.			

Continued: Plan Sheets	RP#	Check	Comments
<b>12</b> Elevations shown at:			
a. B.C., E.C., P.C.C., Angle Points, Lot Lines, and Grade Breaks on all curb lines with curb grades in percent shown.			
b. Show finish grade elevation on each side and top of footing elevation for garden walls. Show finish grade elevation, Top of footing, and top of wall elevations for retaining walls. Verify that masonry wall footings steps are modular with 6" or 8" steps.			
c. Provide existing offsite elevations around the outside of the project.			
d. Show finished pad and floor elevations of adjacent properties or note if vacant.			
e. Call out retention basin bottom elevation and 100 year water surface.			
f. Call out all wall heights			
d. Driveway Grades in percent.			
<b>13</b> No concentrated drainage over retaining walls or sidewalks. Use concrete swales, pipes, down drains or other approved drainage design.			
<b>14</b> Show grade sections & slopes for tract boundaries, retaining walls, setbacks & other features. Call out grades on all section features.			
<b>15</b> Show grades and flow direction at gutters and other rough grade flow areas			
<b>16</b> Tops and Toes of Slopes shall be clearly defined. 2:1 Max. Slope. Show slope between lots if pad elevation difference is >1 foot.			
<b>17</b> No drainage over any slopes.			
<b>18</b> Show 0.5' high by 2' wide drainage berm on top of all slopes.			
<b>19</b> Provide a 2' wide (min.) bench at the top of all slopes between Lots.			
<b>20</b> Join elevations and relationships to surrounding properties are shown with existing TC, FL, TP, and % Slope, etc.			
<b>21</b> Show locations of all existing and proposed Structures, Buried Tanks, Wells, and Utilities. Include disposition of each.			
<b>22</b> Locations of Block Walls, Retaining Walls, and other structures are clearly shown.			
<b>23</b> Locate and identify primary storm drain systems (Catch Basins, Culverts, Cross Gutters, Inlets, Retention Basins, Overflows, Sand Filters, Leach Lines, Etc.).			
<b>24</b> Include Construction Notes on each sheet.			
<b>25</b> Call out Street Dimensions in Plan Views.			

## Continued: Plan Sheets

	RP#	Check	Comments
<b>B. Additionally, Commercial and Multi-family Plans shall Show the following:</b>			
1 Show proposed contours in solid lines. Show daylight line limits with cut/fill indicators.			
2 Access route slopes shown along all ADA routes with ADA signage at entrance. Provide parking summary table on title sheet.			
3 Show proposed elevations at:			
a. Top of curb/flow lines on planter islands and drive isles.			
b. Concrete and asphalt surfaces.			
c. Tops and bottom of stairs.			
d. Doorway thresholds.			
e. Building corners			
f. Grade breaks.			
g. All high points, flowlines and ridgelines.			
h. Elevations and invert elevations at Catch Basins, Manholes, Junction Structures, Bends, Inlets, and Outlets, Area and Landscape Drains and Retention Basins.			
i. Any other elevations pertinent to the grading design.			
j. Finish Floor and Pad Elevations for all Buildings.			
4 Building Numbers or addresses for projects with multiple buildings.			
5 Locations and details of all trash enclosures.			
6 Show roof drains with both vertical and horizontal locations. Connection locations to any hard surface or underground system.			
7 Show proposed water and sewer lines, service & connection locations.			
8 Show concrete stippling on PCC surfaces, shading or other indicator on AC surfaces. Label planter areas.			
9 Details on any on-site drainage structures, walls, surface protection, etc. Shall be shown on the plans.			
10 Show existing, removal & new sections (as applicable) with varied shading. Show existing, join and limit locations.			
11 Horizontal Control Plan.			

## Continued: Plan Sheets

	RP#	Check	Comments
<b>C. Additionally, Residential Tract Plans shall Show the following:</b>			
1 Check for specific grades & components for each lot.			
a. Finish Floor Elevations			
b. Pad Elevations			
c. Garage Floor elevations at door			
d. High Point Elevation			
e. Swale flowline elevations at adjacent to each house corner.			
f. Top of grate and Invert Elevations for all drain inlets and bubblers with pipe slopes and size if used.			
2 Check Pad Elevations for the following			
a. Pad and finished floor elevations to the nearest 0.1'.			
b. Confirm floor is 0.50' above pad elevation unless otherwise noted on plans.			
c. Confirm Lot PE's step uniformly - (look for 1 ft. bust)			
d. Check P.E. = High Side TC+ 1.2 ft. min.			
3 Deepened footings where required.			
4 All setback dimensions.			
5 Show grades and flow direction on			
6 Finish grade at each lot corner			
7 Location of A/C compressor with required access clearance of 3'.			
8 Verify 5 ft. minimum clearance from house to toe of slopes.			
<b>B. Horizontal control plan is provided and shows:</b>			
1. North Arrow (preferred to point up or right or left)			
a. Verify that north arrow rotation is correct.			
2. 4" Bar Scale is properly shown & confirm that scale matches plan.			
3. Show complete boundary information and lot line annotation.			
4. Show all parcel/lot numbers.			
5. Provide typical dimensions through parking lot stalls and drive isles.			
6. Provide line and curve data for curbs. (Including storm drain if not shown elsewhere)			
7. Dimension buildings from property corners to building corners.			
8. Show and dimension building setbacks and planter setbacks.			
9. Show and label parking lot stall and drive isle striping, handicap striping, signing and other traffic control - utilize double stripe parking stall with 1' spacing.			



# CITY OF DESERT HOT SPRINGS

## Street Improvement - QAQC Checklist

<b>Job Number:</b>	<b>Project Name:</b>
<b>Plan &amp; Phase:</b>	

Checked by: \_\_\_\_\_ √ - Ok    X - Requires Confirmation

Sheets Checked:	RP#	Check	Comments
<b>I. General Sheet Requirements</b>			
<b>A. Drafting/Layout requirements</b>			
1. Plan name with Tract, PM, or SDP number & neighboring TM, PM, or SDP.			
2. Type of improvement plan, City requests street improvement plans (on-site & off-site), signing and striping plans (off-site only) - include on-site private street signing/stripping with on-site street improvement.			
3. Section, Township, and Range.			
4. Include design engineers name and address			
5. Basis of bearing and approved bench mark.			
6. Signature blocks			
a. Check for City/Engineer & Public Works Director Signature block. : Approved by: City Eng. RCE# Exp. Date / /			
b. Check for design engineers signature block and seal. Check expiration date.			
c. Other agency's signature block(s) if required.			
7. USA Dig Alert note with phone number 1-800-227-2600			
8. Sheets numbered numerically in increasing order. Sheet    of			
9. Plot date.			
<b>II. TITLE SHEET</b>			
A. Notifications Provided			
B. Street Improvement notes provided.			
C. Signing and Striping notes if signing & striping is included with street plans.			
D. Index Map			
1. Scale is 1"=500' or smaller - use standard scale.			
2. Sheet coverage is shown.			
3. Street Names and Lot #s shown - call out adjacent tracts.			
4. Locations of primary storm drain systems (Catch Basins, Culverts, Inlets, Retention Basins, Overflows, Etc.) are shown on Index Map. Show flow direction on Index Map			

Continued: Title Sheet	RP#	Check	Comments
5. Provide sheet index			
<b>E. Vicinity Map</b>			
1. Arterial Streets shown.			
2. Orient North as on Index Map.			
3. Project locations indicated on map.			
4. Scale notation provided ("NTS" is ok).			
5. Provide city limit boundaries.			
<b>F. Legend of Symbols used, includes Construction Notes, Symbols, Typical Abbreviations, Special Line Types, Hatching Legend, Etc.</b>			
<b>G. Owner's Information</b>			
1. Site Address			
2. Owner's Name, Address, Telephone #			
<b>H. Utility Agency Information - per city requirements Check for existing standard disclaimer.</b>			
<b>I. Show construction notes and estimate of quantities (sheet 1) - show construction notes w/o quantities on all other sheets.</b>			
1. Confirm that existing information is shaded, proposed is solid and future is dashed.			
<b>J. Street Typical sections and details</b>			
1. Typical sections for all streets. Show street names and station limits.			
2. Dimensions of right of way, pavement, parkways, easements, C/L, R/W, curb face, saw cut lines, etc. (Varies - call out max/min distances)			
3. All slopes are properly called out within P.U.E., R/W and beyond.			
4. Percent cross fall are properly called out including max. / min. on varies.			
5. Show construction note for curb, pavement, base, sidewalk, sawcut, overlay, removals, etc			
6 Confirm that existing information is shaded, proposed is solid, and future is dashed.			
7 Show level line and distance from top of pavement at centerline to top of curve.			
<b>K. Development name in title block.</b>			
<b>III. PLAN SHEETS</b>			
<b>A. Plan View Shows the following:</b>			
1. North Arrow (preferred to point up or to the right or left). Verify that north arrow rotation is correct.			
2. 4" Bar Scale is properly shown & confirm that scale matches plan.			
3. Station Intervals at 100' with tick mark and station labels. Preferred stationing is left to right.			
4. Stationing at all intersections with equations on plan & profile.			
5. Stations of all B.C., E.C., P.R.C or P.C.C. of curves.			

Continued: Plan Sheet

	RP#	Check	Comments
6. Stations of all B.C.R. and E.C.R. of curb returns. Set B.C.R. and E.C.R. in the direction of vehicular travel.			
7. Show match lines and referenced sheets.			
8. Right of way, parkway and curb lines dimensioned from centerline - lines consistent with typical sections.			
9. P.U.E. and other easements dimensioned and labeled.			
10. Approved street names shown on plan.			
11. City limit lines labeled where applicable.			
12. Lot numbers and lot lines shown.			
13. Show proposed improvements with solid lines and existing improvements with dashed lines.			
14. Pavement Shading:			
a. Shade proposed pavement areas.			
b. Show hatching for removals.			
c. Cross hatched proposed overlays.			
15. Show locations of all existing and proposed Structures, Buried Tanks, Wells, and Utilities. Include disposition of each.			
16. Include pertinent construction notes on each sheet.			
17. Provide curve & line table for all centerlines and curbs.			
18. Show connections to existing improvements with elevations at the join line and a minimum of 50' at each side of the join.			
19. Barricades and appropriate signing shown at all temporary dead end streets.			
20. Show proposed water, sewer and storm drain.			
21. Show ADA accessible driveway locations and widths (if available).			
22. Show sidewalk locations.			
23. Show access ramps.			
24. Call out flow line or top of curb elevations at all required stations.			
25. Call out edge of pavement taper ratio.			
26. Call out catch basin centerline "W" (width), "H" (height) station			
<b>B. Profile Shows:</b>			
1. Profile of centerline in existing streets or ground line is dashed.			
2. Finished centerline and curb lines are solid lines. Call out East, West, Top of curb, right and left, and distance from centerline.			
3. Show existing ground or proposed subgrade. (dashed).			
4. Show % of grade on proposed and existing profiles - note existing to be in ( )			

Continued: Plan Sheet

	RP#	Check	Comments
5. Stations and elevations at 25' max. intervals on all Vert. Curves			
a. Call out vertical curves.			
b. Call out all grade breaks.			
c. All B.C., E.C., B.C.R., E.C.R., P.R.C., P.C.C. and catch basins.			
6. Extend profiles with elevations and grades (%) beyond end of improvements a minimum of 100 feet as necessary to justify the profile grade.			
7. Indicate length of curb returns. Show curb return with 1/4 points in profile.			
8. Show 100' stationing at bottom of profile grid. Should be aligned with starting station in plan view.			
9. Use vertical curves for all grade breaks greater than 0.50%.			
10 Provide street name(s) on profile.			



# CITY OF DESERT HOT SPRINGS

## Private Sewer Plan - QAQC Checklist

(sewer agency requirements will also apply)

Job Number: \_\_\_\_\_ Project Name: \_\_\_\_\_  
 Plan & Phase: \_\_\_\_\_

Checked by: \_\_\_\_\_

√ - Ok X - Requires Confirmation

Sheets Checked: \_\_\_\_\_

	RP#	Check	Comments
<b>I. General Sheet Requirements</b>			
<b>A. Drafting/Layout requirements</b>			
1. Plan name with Tract, PM, or SDP number & neighboring TM, PM, or SDP.			
2. Type of improvement plan, i.e. Sewer Improvement Plan.			
3. Section, Township, and Range.			
4. Design Engineer Name & Address			
5. Basis of bearing and approved bench mark.			
6. Signature blocks			
a. Check for City Engineer & Director of Public Works. Approved by: City Engr. RCE# _____ Exp Date ____/____/____			
b. Check for Design Engineers signature block and seal. Check expiration date.			
c. Other agency's signature block(s) if required.			
7. USA Dig Alert note with phone number 1-800-227-2600			
8. Sheets numbered numerically in increasing order. Sheet ____ of ____			
9. plot date..			
<b>II. TITLE SHEET</b>			
A. General Notes - use appropriate District Notes.			
B. Sewer Notes - use appropriate District Notes.			
C. Index Map			
1. Scale is 1"=500' or smaller - use standard scale.			
2. Sheet coverage is shown.			

## Continued: Title Sheet

	RP#	Check	Comments
3. Street Names and Lot #s shown - call out adjacent tracts.			
4. Locations of primary sewer systems, main line sizes and manhole clean-out numbers are shown on index map.			
5. Provide sheet index			
<b>D. Vicinity Map</b>			
1. Arterial Streets shown.			
2. Orient North as on Index Map.			
3. Project locations indicated on map.			
4. Scale notation provided ("NTS" is ok).			
5. Provide city limit boundaries.			
<b>E. Legend of Symbols used, includes Construction Notes, Symbols, Typical Abbreviations, Special Line Types, Hatching Legend, Etc.</b>			
<b>F. Owner's Information</b>			
1. Site Address			
2. Owner's Name, Address, Telephone #			
<b>G. Utility Agency Information. Check for existing standard disclaimer.</b>			
<b>H. Show construction notes and estimate of quantities. Check for "Quantity Estimate" disclaimer.</b>			
1. Ensure that existing, proposed and future improvement line types are per Legend.			
<b>I. Street Typical sections and details</b>			
1. Typical street sections for all streets with Sewer and all utilities dimensioned from centerline.			
2. Dimensions of right of way, pavement, parkways, easements, C/L, R/W and curb face.			
3. Confirm that existing information is shaded, proposed is solid, and future is dashed.			
4. Show typical sewer trench section if depth is greater than 15 feet.			
<b>J. Development name in title block.</b>			
<b>K. Provide sewer manhole legend.</b>			
<b>L. CVWD easement note.</b>			

	RP#	Check	Comments
<b>III. PLAN SHEETS</b>			
A. Plan View Shows the following:			
1. North Arrow (preferred to point up or to the right or left). Verify that north arrow rotation is correct.			
2. 4" Bar Scale is properly shown & confirm that scale matches plan.			
3. Station intervals at 100' with tick mark and station labels. Preferred stationing is left to right.			
4. Stationing at all manholes & clean-outs with equations on plan and profile.			
5. Stations of all B.C., E.C., P.R.C. and P.C.C. of curves on sewer.			
6. Show match lines and referenced sheets.			
7. Right of way, parkway and curb lines dimensioned from centerline - lines consistent with typical sections.			
8. P.U.E. and other easements dimensioned and labeled.			
9. Approved street names shown on plan.			
10. City limit lines labeled at adjoining cities.			
11. Lot numbers and lot lines shown.			
12. Ensure that existing, proposed and future improvement line types are per HEI standard.			
13. Trench Shading: (existing street only)			
a. Do not call out dimensions on trench widths.			
b. Show hatching for removals.			
c. Cross hatched proposed overlays (if required).			
14. Show locations of all existing and proposed Structures, Buried Tanks, Wells, and Utilities. Include disposition of each.			
15. Include pertinent construction notes on each sheet (if necessary).			
16. Provide curve & line table for centerline of sewer.			

Continued: Plan Sheets	RP#	Check	Comments
17. Show connections to existing improvements with elevations at the join line and a minimum Callout to field verify location and elevation of Point of connection. a. Call out existing district plan number for reference to existing water & sewer mains.			
18. Show proposed water, sewer and storm drain with dimensions to centerline.			
19. Show sidewalk locations.			
20. Show access ramps.			
<b>B. Profile Shows:</b>			
1. Profile of proposed surface is called out and shown legend.			
2. Ensure existing, proposed and future pipe per legend.			
<b>3. Pipe slope call out.</b>			
a. Show slope on proposed and existing sewer profiles in format percentage (%).			
b. Note existing to be in ( ).			
<b>4. Profile annotation.</b>			
a. Call out manholes and cleanout stations, numbers, rim elevation depth and invert elevations.			
b. Call out size, type and length of sewer pipe from manhole to manhole.			
5. Show connections to existing improvements with elevations at the join line. Call out to field verify location and elevation of point of connection.			
6. Show 100' stationing at bottom of profile grid and grid elevations on left and right of profile. Should be aligned with starting station in plan view.			
7. Show sewer line designation on title.			
8. Call out all proposed and existing utility crossings.			



# CITY OF DESERT HOT SPRINGS

## Private Water - QAQC Checklist (water agency requirements will also apply)

<b>Job Number:</b>	<b>Project Name:</b>
<b>Plan &amp; Phase:</b>	

Checked by: \_\_\_\_\_

√ - Ok    X - Requires Confirmation

Sheets Checked: \_\_\_\_\_

	RP#	Check	Comments
<b>I. General Sheet Requirements</b>			
<b>A. Drafting/Layout requirements</b>			
1. Plan name with Tract, PM, or SDP number & neighboring TM, PM, or SDP.			
2. Type of improvement plan, i.e. Water Improvement Plan.			
3. Section, Township, and Range.			
4. Design and Engineer Name and Address			
5. Basis of bearing and approved bench mark.			
6. Signature blocks			
a. Check for City Engineer & Director of Public Works Approved by: City Engr. RCE# Exp Date ____ / ____ / ____			
b. Check for Design engineers signature block and seal. Check expiration date.			
c. Other agency's signature block(s) if required.			
d. Riverside City Fire Marshall Approval Block. Note: Leave blank space in lower right hand corner for CVWD or DWA signature block.			
7. USA Dig Alert note with phone number 1-800-227-2600			
8. Sheets numbered numerically in increasing order. Sheet ____ of ____			
9. Plot Date			
<b>II. TITLE SHEET</b>			
A. General Notes Provided - use Water District Notes.			
B. Water notes provided.			
C. Index Map			
1. Scale is 1"=500' or smaller - use standard scale.			

Continued: Title Sheet	RP#	Check	Comments
2. Sheet coverage is shown.			
3. Street Names and Lot #s shown - call out adjacent tracts.			
4. Locations of primary water systems and main line fire hydrant locations.			
5. Provide sheet index			
6. Ensure that existing, proposed and future improvement line types are per Legend			
<b>D. Vicinity Map</b>			
1. Arterial Streets shown.			
2. Orient North as on Index Map.			
3. Project locations indicated on map.			
4. Scale notation provided ("NTS" is ok).			
5. Provide city limit boundaries and city designation.			
<b>E. Legend of Symbols used, includes Construction Notes, Symbols, Typical Abbreviations, Special Line Types, Hatching Legend, Etc.</b>			
<b>F. Owner's Information</b>			
1. Site Address			
2. Owner's Name, Address, Telephone #			
<b>G. Utility Agency Information. Check for "Existing Utility Location" disclaimer</b>			
<b>H. Show construction notes and estimate of quantities. (Include Water District Notes). Check for "Quantity Estimate" disclaimer.</b>			
<b>I. Street Typical sections and details</b>			
1. Typical street sections for all streets with Water and all utilities dimensioned from centerline.			
2. Dimensions of right of way, pavement, parkways, easements, C/L, R/W and curb face.			
3. Confirm that existing information is shaded, proposed is solid, and future is dashed.			
<b>J. Development name in title block.</b>			
<b>III. PLAN SHEETS</b>			
<b>A. Plan View Shows the following:</b>			
1. North Arrow (preferred to point up or to the right or left). Verify that north arrow rotation is correct.			
<b>Continued: Plan Sheets</b>	<b>RP#</b>	<b>Check</b>	<b>Comments</b>

2. 4" Bar Scale is properly shown & confirm that scale matches plan.			
3. Station intervals at 100' with tick mark and station labels. Preferred stationing is left to right.			
4. Stationing at all T's, bends, valves, meters and appurtenances with equations on plan and profile.			
5. Stations of all B.C., E.C., P.R.C. or P.C.C. of curves on water.			
6 Show match lines and referenced sheets.			
7. Right of way, parkway and curb lines dimensioned from centerline - lines consistent with typical sections.			
8. P.U.E. and other easements dimensioned and labeled.			
9. Approved street names shown on plan.			
10. City limit lines labeled.			
11. Lot numbers and lot lines shown.			
12. Ensure that existing, proposed and future improvement line types are per Legend.			
13. Trench Shading: (existing street only)			
a. Do not call out dimensions on trench widths.			
b. Show hatching for removals.			
c. Cross hatched proposed overlays (if required).			
14. Show locations of all existing and proposed Structures, Buried Tanks, Wells, and Utilities. Include disposition of each.			
15. Include pertinent construction notes on each sheet.			
16. Provide curve & line table for centerline of water.			
17. Show connections to existing improvements with elevations at the join line and a minimum Add "Existing Utility Verification" disclaimer to point of connection.			
a. Call out existing water dist. plan number for reference to existing water & sewer mains.			

Continued: Plan Sheets	RP#	Check	Comments
18. Show proposed water, sewer and storm drain with dimensions to centerline.			
19. Show sidewalk locations.			
20. Show access ramps.			
21. Water District easement note. (if applicable)			
<b>B. Profile Shows:</b>			
1. Profile of proposed surface is called out and continuous per standard line types.			
2. Ensure existing, proposed and future pipe per standard line types.			
3. <b>Pipe slope call out.</b>			
a. Show slope on proposed and existing water profiles in format percentage (%).			
b. Note existing to be in ( ).			
4. <b>Profile annotation.</b>			
a. Call out station & elevations for T's, bends, hydrants, grade breaks and A/V vales.			
b. Call out size and type of water pipe.			
5. Show connections to existing improvements with elevations at the join line. Add "Existing Utility Verification" disclaimer to point of connection.			
6. Show 100' stationing at bottom of profile grid and grid elevations on left and right of profile. Should be aligned with starting station in plan view.			
7. Show water line designation on title.			
8. Call out all proposed and existing utility crossings.			



# CITY OF DESERT HOT SPRINGS

## Storm Drain Plan - QAQC Checklist

<b>Job Number:</b>	<b>Project Name:</b>
<b>Plan &amp; Phase:</b>	

Checked by: \_\_\_\_\_

√ - Ok    X - Requires Confirmation

Sheets Checked:	RP#	Check	Comments
<b>I. General Sheet Requirements</b>			
<b>A. Drafting/Layout requirements</b>			
1. Plan name with Tract, PM, or SDP number & neighboring TM, PM, or SDP.			
2. Type of improvement plan, i.e. Storm Drain Improvement Plan.			
3. Section, Township, and Range.			
4. Include name and address of design engineer			
5. Basis of bearing and approved bench mark.			
6. Signature blocks			
a. Check for City/Eng. & Director of Public Works. Approved by: City Engr. RCE# _____ Exp Date ____/____/____			
b. Check for engineers signature block and seal. Check expiration date.			
c. Other agency's signature block(s) if required.			
7. USA Dlg Alert note with phone number 1-800-227-2600			
8. Sheets numbered numerically in increasing order. Sheet ____ of ____			
9. Plot date.			
<b>II. TITLE SHEET</b>			
<b>A. Notification 5 Provided</b>			
<b>B. Storm Drain notes provided.</b>			
<b>C. Index Map</b>			
1. Scale is 1"=500' or smaller - use standard scale.			
2. Sheet coverage is shown.			
3. Street Names and Lot #s shown - call out adjacent tracts.			
4. Locations of primary storm drain systems (Catch Basins, Culverts, Inlets, Retention Basins, Overflows, Etc.) are shown on Index Map. Show direction of flow on Index Map.			
5. Provide sheet Index			

Continued: Title Sheet	RP#	Check	Comments
<b>D. Vicinity Map</b>			
1. Arterial Streets shown.			
2. Orient North as on Index Map.			
3. Project locations indicated on map.			
4. Scale notation provided ("NTS" is ok).			
5. Provide city limit boundaries and city designation.			
<b>E. Legend of Symbols used, includes Construction Notes, Symbols, Typical Abbreviations, Special Line Types, Hatching Legend, Etc.</b>			
<b>F. Owner's Information</b>			
1. Site Address			
2. Owner's Name, Address, Telephone #			
<b>G. Utility Agency Information - per city requirements</b> Check for existing standard disclaimer.			
<b>H. Show construction notes and estimate of quantities.</b> Check for standard disclaimer.			
1. Confirm that existing information is shaded, proposed is solid and future is dashed.			
<b>I. Development name in title block.</b>			
<b>III. PLAN SHEETS</b>			
<b>A. Plan View Shows the following:</b>			
1. North Arrow (preferred to point up or to the right or left). Verify that north arrow rotation is correct.			
2. 4" Bar Scale is properly shown & confirm that scale matches plan.			
3. Station intervals at 100' with tick mark and station labels. Preferred stationing is left to right.			
4. Stationing at all junction structures with equations on plan and profile.			
5. Stations of all B.C., E.C., P.R.C. or P.C.C. of curves on storm drain.			
6 Show match lines and referenced sheets.			
7. Right of way, parkway and curb lines dimensioned from centerline - lines consistent with typical sections.			
8. P.U.E. and other easements dimensioned and labeled.			
9. Approved street names shown on plan.			
10. City limit lines labeled at adjoining cities.			
11. Lot numbers and lot lines shown.			
12. Ensure that existing, proposed and future improvement line types are per Legend.			
13. Trench Shading: (existing street only)			
a. Do not call out dimensions on trench widths.			
b. Show hatching for removals.			
c. Cross hatched proposed overlays (if required).			
14. Show locations of all existing and proposed Structures, Buried Tanks, Wells, and Utilities. Include disposition of each.			

Continued: Plan Sheet	RP#	Check	Comments
15. Include pertinent construction notes on each sheet.			
16. Provide curve & line table for centerline of storm drain.			
17. Show connections to existing improvements with elevations at the join line and note: to field verify elevation and location prior to construction.			
18. Show proposed water, sewer and storm drain with dimensions to centerline.			
19. Show sidewalk locations.			
20. Show access ramps.			
21. Call out catch basin centerline "W" (width), "H" (height), TC, FL, storm drain station, and street station.			
22. Provide storm drain line designation.			
<b>B. Profile Shows:</b>			
1. Profile of proposed surface is continuous and per Legend.			
2. Ensure that existing, proposed and future improvement line types are per Legend.			
3. Show % of grade on proposed and existing profiles - note existing to be in ( )			
4. Stations and elevations shown at:			
a. Catch basins, junction structures, manholes, collars, headwalls, and outlet structures. (Show appropriate description/information for each structure).			
b. B.C., E.C., and grade breaks.			
c. Call out size, length of Storm Drain pipe, HGL100, V100 and Q100.			
5. Show connections to existing improvements with elevations at the join line and note: invert elevation and locations to be field verified prior to construction.			
6. Show 100' stationing at bottom of profile grid. Should be aligned with starting station in plan view.			
7. Street Typical sections and details			
1. Typical street sections for all streets with Storm Drain and all utilities dimensioned from centerline.			
2. Dimensions of right of way, pavement, parkways, easements, C/L, R/W and curb face.			
3. Confirm that existing information is shaded, proposed is solid, and future is dashed.			
4. Show typical storm drain trench section.			
8. Show match lines and referenced sheets.			
9. Scale is properly shown & confirm that scale matches plan.			
10. Call out all proposed and existing utility crossings.			