

## SECTION 7

### SANITARY SEWER DESIGN STANDARDS AND PLANS

#### GENERAL

Sanitary Sewer Plans shall meet the criteria specified in Private Contract Sanitary Sewer Procedural Manual, latest edition, published by Los Angeles County Department of Public Works and shall also incorporate the following:

#### 1. TV INSPECTION

- 1.1. Prior to acceptance of any sanitary sewer line by the City, said line shall be inspected internally by television as outlined below at no cost to the City.
- 1.2. Defects such as high and low spots, joint separations, offset joints, chipped ends, cracked or damaged pipe, infiltration points and debris in lines shall be corrected at no cost to the City.
- 1.3. The complete job is ready for television inspection when the following work has been completed:
  - 1.4. All sewer pipelines are installed, backfilled and compaction testing completed.
  - 1.5. All structures are in place, all channeling is complete and pipelines are accessible from structures.
  - 1.6. All other underground facilities, utility piping and conduits are installed, inspected, tested and compaction testing completed.
  - 1.7. Final street subgrading is complete and ready for asphaltic concrete surfacing.
  - 1.8. Pipelines to be inspected have been preliminarily balled, flushed and mandrel or cleaned with a high pressure cleaner.
  - 1.9. Final air test has been completed and approved.
- 1.10. When the above work is complete, the Developer shall arrange for the television inspection.
- 1.11. The Developer of the project will notify the City in writing as to the scheduled date of the television inspection.
- 1.12. The entire job will be initially televised and video taped. The tapes and reports shall be delivered to the City.
- 1.13. The Developer will be notified in writing of any deficiencies revealed by the television inspection that will require repair. If corrective work is indicated and Developer wishes to view videotapes, he shall contact the City to set a time for viewing with the Engineer.
- 1.14. Corrective work shall be done. The cost shall be borne by the Developer.

- 1.15. Those portions of the pipeline system that have been corrected must be inspected, tested, re-televised and video taped and the tapes and reports delivered to the City.
- 1.16. The procedure outlined in conditions 1.4 through 1.15 above will be repeated until all deficiencies observed by television have been corrected to the complete satisfaction of the City.
- 1.17. All video tapes and reports become the property of the City to be used as "Record Drawings" for future reference.

## **DESIGN STANDARDS**

All sanitary sewer system infrastructure shall be designed according to the following standards and details as required by Ordinance No. 1376, an ordinance of the City Council of the City of Palmdale adopting Title 13 establishing sanitary sewers and industrial waste as promulgated in Chapter 13.08 Article 3 and the Standard Drawings included in the Private Contract Sanitary Sewer Procedural Manual, latest edition, published by Los Angeles County Department of Public Works or other standards adopted by the City Engineer.

Condominium sewers - New condominium developments shall be served with main-line sewers and house lateral sewers such that each building will have a separate and independent connection to a main-line sewer.

Large lots--Sewer service requirements - Where a lot is of sufficient size that the Zoning Ordinance, as set out at Title 17 of City Municipal Code does not prohibit its division into smaller parcels, each of such possible parcels into which such lot legally may be divided, upon which one or more buildings containing plumbing facilities are or may be located, shall be considered as a separate lot. Separate house laterals shall be constructed to the main-line sewer for each of such possible parcels except where the owner has filed an affidavit as provided in the Palmdale Plumbing Code (see Chapter 8.04.600). If the main-line sewer does not extend to a point from which such possible parcels can be served in accordance with the requirements of said Chapter the main-line sewer must be extended in compliance with said Chapter.

### **Participation in project--Letter requirements:**

1. A "letter of participation," shall be submitted before approval of public sewer plans describing all properties which have participated in the cost of the project.
2. All such properties listed will be exempt from the connection charge only.
3. The "letter of participation" shall not be revised after the sewers have been accepted for public use by the Council.
4. Exception: The "letter of participation" shall not be revised after a reimbursement agreement authorized under Section .080 has been approved by the Council. Listed participants will be exempt from the reimbursement district connection charges established for that project in which they have participated.

## **Dedication of sewers**

1. An offer of dedication of sewers to the City shall be included in the agreement to construct sewers for a new subdivision which accompanies the faithful performance security guaranteeing the construction required as a condition for the recordation of the tract map or parcel map.
2. Before plans for the construction of any other public main-line sewer are approved by the City Engineer, the person causing such plans to be prepared shall present an "offer of dedication," signed and acknowledged, on forms provided by the City Engineer.
3. When the construction of the sewer, has been completed and accepted by the Council, the sewer becomes a public sewer.
4. No sewer shall be accepted for dedication by the City unless such sewer has been constructed in conformity with the requirements herein.
5. Exceptions:
6. If a literal compliance with any engineering requirement of this Chapter is impossible or impractical because of peculiar conditions in no way the fault of the person requesting an exception, and the purposes of this Chapter may be accomplished and public safety secured by an alternate construction or procedure, and the City Engineer so finds that such alternate complies with sound engineering practice, he may grant an exception permitting such alternate construction or procedure.

## **Plan Preparation by Registered Civil Engineer**

1. Any plans submitted for approval under the provisions of this section shall be prepared by or under the direction of and shall be signed by a registered civil engineer of the state of California or by a professional engineer registered in the discipline required for the type of infrastructure proposed.
2. Before a sewer construction permit may be issued, plans for the proposed construction shall be submitted to and approved by the City Engineer, unless the City Engineer determines that plans are not necessary.
3. After all required plan check fees in the fee resolution have been paid, the City Engineer shall check the submitted plans for compliance with the requirements of this ordinance and other applicable laws and ordinances of the county, state, or other governmental jurisdiction.
4. If plan corrections and other requirements necessary for plan approval have not been completed within one year after the checked plans are returned by the of Public Works Department, it shall constitute abandonment of the work and the City Engineer shall so notify the person who has submitted the plans.
5. Approval of a sewer plan shall expire two years from the date of the approval, unless construction of the facilities has commenced.

6. Resubmission of abandoned and expired plans shall be subject to new plan check fees.

#### **Sewer Easement Requirements:**

1. A person desiring to construct a sewer in an easement under the provisions of this Chapter shall present to the City Engineer a request for processing, sufficient information to enable the preparation of a written description, and the fees specified in the City Fee Resolution.
2. The location and dimensions of sanitary sewer easements shall be sufficient to provide present and future sewer service to abutting areas and adequate access for maintenance as determined by the City Engineer.
3. Until the required easements have been properly executed and recorded:
4. No plans shall be approved by the City Engineer for sewer facilities to be constructed by any person across the property of others;
5. No sewer facilities shall be accepted for public use, nor placed in use by any person.

#### **Main-line sewers--Size specifications.**

1. The size of main-line sewer pipe shall be determined by standards of design and the coefficients determined by the City Engineer, but in no case shall it be less than eight inches inside diameter. Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown. The coefficient to be used for any zoned area not listed will be determined by the City Engineer based upon the intended development and use.
2. The City Engineer shall determine which of the coefficients or combination of coefficients shall be used for design, as determined by the established or proposed zoning in the study area. Any modifications to these coefficients due to topography, development or hazard areas shall be approved by the City Engineer.

#### **Main-line sewers--Minimum velocity.**

A mainline sewer shall be designed to provide a minimum velocity of two feet per second for pipes flowing one-half full, except that the City Engineer may approve a gradient that will develop a lower velocity if he finds that a gradient that will develop a velocity of two feet per second is unobtainable.

#### **Bench marks and elevations.**

A bench mark shall be shown on the profile sheets. The elevations shall be based on NAVD 88 Datum or a datum acceptable to the City Engineer. The bench mark shall be a published benchmark near the project area used in the design of the project and adequate to construct the work. The bench mark description shall state the bench mark datum, County Quad name, adjustment year and description. The elevation of the sewer at the point where the system is to be discharged shall be shown as determined in the field from the above shown datum.

### **Soil conditions.**

Soil conditions, particularly in areas known to have high groundwater tables, rock, or filled ground, shall be prospected, and the results shown on the profile, if required by the City Engineer.

### **Grades.**

The slope of the sewer shall be shown on the plans in feet of fall per 100 feet of horizontal distance, expressed as a percentage. Slopes used expressed in percentages shall be divisible, without remainder, by four in the hundredth column. For example, 0.36 percent complies with these requirements.

### **Main-line sewers--Alignment and location in street.**

Where design considerations permit, main-line sewers shall have a straight alignment, and shall be located five feet from and on the northerly and easterly sides of the centerlines of streets or alleys, except on major or secondary highways where separate sewers shall be located in the roadway six feet from each curb line.

### **Main-line sewers--Depth.**

1. The minimum depth for mainline sewers shall be seven and one-half feet.
2. Where groundwater is present, the depth for residential main-line sewers may be sufficient to provide for a house lateral with a minimum depth of at least five feet below the curb grade or centerline of street or alley grade at the property line.
3. Exceptions to the above minimum may be made only on the approval of the City Engineer.
4. House laterals--Specifications generally.
5. For each lot, a six-inch internal diameter house lateral sewer shall be provided in the street, straight in alignment and grade between the main-line sewer and the property line, with minimum depths as required by Section 15, and at right angles to the mainline sewer whenever possible.
6. Exception: House laterals constructed in the street under the provisions of the Palmdale Plumbing Code, (as set out at Chapter 8.04.600) or house laterals provided in the street for lots restricted to single-family residential use under the provisions of the Zoning Ordinance, Title 17, may have an internal diameter of four inches.

### **House laterals--Depth.**

1. The depth of house laterals at the property line shall be sufficient to provide service to the lowest or farthest point to be served on the lot at a minimum grade of two percent, with the top of the pipe not less than one foot below the ground surface at any point.

2. The minimum depth for house laterals at the property line shall be six feet below the curb grade or the centerline of street or alley grade, except as set forth herein for locations where groundwater is present.
3. Where street-widening lines have been established by the Zoning Ordinance, as set out at Title 17 of this code, the minimum depth shall be measured at such established line. If house laterals are constructed before the existing street is widened, the depth at the property line shall be such that extension at the same straight grade and alignment to the new property line will produce the required depth.

#### **End structures--Location specifications.**

1. End structures shall be placed at whichever of the following locations is farthest up grade:
2. Not less than 10 feet upgrade from the downgrade lot line of the last lot being served;
3. Not more than 40 feet downgrade from the upgrade lot line of the last lot being served, if there may be a future extension of the main-line sewer;
4. At a location where the house lateral and building sewer can be constructed in a straight alignment at right angles to the main-line sewer.
5. End structures shall be manholes.

#### **Manhole structures.**

Manhole structures shall be placed in the main-line sewer at all changes of alignment and gradient; the maximum distance between structures shall be not more than 350 feet. All structures shall be designed according to the standard drawings for structures on file in the office of the City Engineer. Exceptions to the above requirements may be made only on approval of the City Engineer.

#### **Substructures**

All substructures which will be encountered in the construction or which will be installed as part of the improvement shall be shown and designated on the plan. Large substructures which require special treatment in the design of the sewer shall also be shown in the profile. The engineer who has prepared the plans shall submit to the City Engineer a statement that he has determined from each utility or other company having substructures in the affected area that the location and size of such structures, as shown on the submitted plans, are the same as shown upon such company's records.

#### **Pipe materials--Approval required.**

1. All pipes other than vitrified clay or cast iron shall first have been approved for use by the City Engineer and shall be equivalent to vitrified clay or ductile iron in strength, effectiveness, durability and safety in accordance with the use intended.

2. Before approving any pipe, the City Engineer may require satisfactory proof that such pipe is suitable for use, including actual tests performed by an independent and approved testing laboratory at no expense to the City.

**Vitrified clay pipe--Installation specifications.**

1. Vitrified clay pipe, main-line and house lateral sewers, shall be constructed of the class designated as extra-strength pipe.
2. Sewer pipe installed under a railway shall be encased in concrete, or encased in a steel pipe backfilled with sand, or encased by other approved means which will protect the pipe to the same extent to the satisfaction of the railway company.
3. Sewer pipe installed under a conduit or other structure, or at depths greater than 20 feet or in other locations where the City Engineer determines that additional protection is required, shall be reinforced with a concrete cradle, or encased in concrete, or reinforced by other approved means which will protect the pipe to the same extent.
4. Sewer pipe installed in streets or public easements with the top of the pipe less than four feet below the surface, as determined during construction or indicated on the plans, shall be encased in concrete, or other approved means to protect the pipe.

**SUBMITTAL REQUIREMENTS**

1. Sanitary Sewer plans shall be submitted as a part of the Street Improvement plan submittal package.
2. See plan checking and submittal requirements.

**SEWER IMPROVEMENT PLAN CHECKLIST**

COVER SHEET (asterisk items requires special attention by plan checker)

- Refer to "Private Contract" Sanitary Sewer Plans" Manual by L.A. County.
- Refer to "Standard Drawings for Construction" by L.A. County Sanitation District.
- Benchmark - County of Los Angeles, Palmdale Quad, elevation location, BM#, description, adjustment date.
- Title area - Tract number, Palmdale number, page number, number of sheets and pages, date, signature and stamp of Engineer, legend of Standard Plans, City Engineer's signature block, County Sanitation District signature block, Tract number and PC number on right border. Scale 1" = 40'Horz., 1" = 4' Vert.
- \* Index Map - Scale: 1" = 600', PC number, Tract number, City limit lines if applicable, tract boundary, location of sewer lines with page references, surrounding tracts, major/secondary highways, railroad tracts, existing sewer lines with size and owner (Los Angeles County Sanitation District Trunk Sewer, etc.)

- \* General Notes - to include General Notes as listed in this section.
- \* Construction Notes - to include all Construction Notes as listed in this section.
- Private Engineer's Notice to Contractors.
- \* Miscellaneous Notes - to include all applicable Notes in this section.
- Underground Alert Notice.
- Private Engineer's Statement of Responsibility.
- When crossing a railroad, a maintenance agreement between the City and the railroad company is required prior to plan approval.
- \* Need applicable statements.
- Collect charges as indicated - Use when charges are indicated on plan or profile.
- Double vertical scale - Use when scale on profile is changed to 1" = 8'.
- See County Sanitation District for special connection charges - Use in cases as defined by Los Angeles County Sanitation District.
- No charges for connection - Use when no fee is necessary or that fees were paid as part of another project.
- Collect ordinance frontage charges - Use when a fee is necessary to lateral a new user to an existing sewer main line that the user didn't participate in constructing.
- Issue no permits, street must be double lined - Use when a main sewer line is required on both sides of street and only one is available.

## PLAN AND PROFILE SHEET

### PLAN VIEW: 1" = 40'

- North arrow (to top or right), plan must be drawn accurately to scale.
- \* Existing improvements and utilities shown dashed, limits of construction for existing and new.
- Street names, street widths with street dimensions and main sewer and water location with reference to street centerline.
- Stationing of at least one lot line per block each side of street.
- Tract boundary, tract number, lot lines and numbers, adjacent tract or parcel numbers
- \* Pad elevations and lot numbers.



- [ ]\* Stationing of main sewer lines. Low points will be start of stationing and increase with rise of main sewer line. At junction of independently stationed main sewer lines, an equation shall be used to show relation.
- [ ]\* Locations of water lines to be per latest design of water plans.
- [ ]\* Invert elevations of utility crossings.
- [ ] Lot dimensions and length of curve on curb return.
- [ ]\* As-Built stationing of existing main sewer lines, continue to use as-built stationing, if practical.
- [ ]\* Reference PC numbers for existing main sewer lines and Sanitation District designation for trunk sewer lines.
- [ ] Call Los Angeles County Sanitation District for methods of joining trunk sewer lines.
- [ ] Center plan under profile.
- [ ] All H.L. to be constructed to R/W line if main line is more than 5 feet from R/W.
- [ ]\* Station normal house laterals with respect to connection at main line sewer and at end (at R/W) with respect to main line sewer.
- [ ]\* Design engineer must consult with railroad company for design requirements and permits when a sewer passes under RR tracks. Steel jacking is required per STD. S-37.
- [ ] Four-inch house laterals may be used in single family subdivisions. Six-inch house laterals to be used in all other cases.
- [ ] Dash facilities when shown elsewhere on plans.

## PROFILE

- [ ]\* Note scale, if different than 1" = 4'.
- [ ] Stationing (every 100') and elevation (every 5') of grid.
- [ ] T.C. grade each side and/or surface over sewer when applicable.
- [ ] Open circle at grade breaks (-0-).
- [ ] Station and elevation at surface for grade breaks, intersections, change in conditions.
- [ ] Identical points flagged as such.
- [ ]\* Where clearance (from sewer to object) is .5 feet to 1.5 feet, encase per STD. S-23. Where clearance is less than .5 feet, use ductile iron pipe.
- [ ]\* Chimneys are required where depth of main line sewer is 15 feet or more.

- [ ] Cradling or encasement is required where depth of main line sewer is 20 feet or more.
- [ ] 0.75 feet between outlet elevation and the bottom (base) of MH structure.
- [ ] Sewer grades should be in multiples of 0.40% if practical.
- [ ] Use lettered section designations only when two or more sections appear on one page.
- [ ] Lower manhole on each view to be shown dashed if shown solid on any other view.
- [ ]\* Backwater valves are required when pads serviced by a main sewer line are lower in elevation than the next upstream MH.
- [ ] Avoid use of vertical curves. Minimum length of vertical curve shall be 40 feet. Elevation and station to be shown every 10 feet
- [ ] House laterals to be constructed with 1/4" per foot rise to the R/W line.
- [ ]\* Label and flag up (45 degrees) all inlets and outlets unless the required drop is centerline.
- [ ]\* Main sewer line or house laterals must be encased where less than four feet of cover to subbase in street is available.
- [ ] In local streets, main line sewers should be located 5 feet northerly or easterly of the street centerline.
- [ ] Minimum distance between center of manhole and curb line is 6 feet.
- [ ] City boundary line to be shown as dash-double dot lines. \_\_\_\_\_ \_ \_
- [ ]\* Maximum manhole distance to be 350 feet.
- [ ]\* Horizontal curve table with delta, radius, length of curve, and tangent consecutively labeled. Horizontal curve data shall be identified by a number in a circle and shall be consistent throughout the set of plans. Only one curve of any kind allowed between manholes. Minimum radius for 8" sewer is 120 feet. Maximum delta is 60 degrees.
- [ ] Call out curb lines, utilities and substructures, street centerline, H.L., wyes, encasements, cradles, chimneys, shallow manholes, stubs, plugs, BC and EC, easements, future construction, identical points, direction of flow, size of sewers, R/W.
- [ ] Call out page references to match lines.
- [ ]\* Elevation of MH tops required in areas of new paving. MH tops in existing paving to meet grade. MH tops in undeveloped areas to be 6" above grade.
- [ ]\* For required drops through manholes see STD. S-C5.



# CITY OF PALMDALE

## SEWER IMPROVEMENT PLANS

38250 Sierra Highway  
Palmdale, California 93550

Parcel/Tract \_\_\_\_\_ Palmdale P.C. \_\_\_\_\_

Engineer \_\_\_\_\_ Telephone \_\_\_\_\_

Please make the corrections shown on the attached check prints and return the following circled items. IF REQUESTED ITEMS ARE NOT INCLUDED IN THE FOLLOWING SUBMITTAL, IT WILL BE DEEMED AS INCOMPLETE AND NOT BE ACCEPTED.

1. CORRECTION (REDLINE) PRINTS AND TWO FOLDED SETS OF CORRECTED PRINTS.
2. COPY OF FIELD NOTES showing: Existing manhole ties, invert elevations, surface over sewer and topography.
3. PROVIDE SANITARY SEWER AREA DESIGN CALCS. With engineers seal and signature.
4. UNDERGROUND LETTER: Complete, sign, seal and return (Contacting utility companies by phone is okay).
5. PARTICIPATION LETTER: Complete and return. (The description of the property should be as simple as possible, for example: "Tract 40000.")
6. SUBMIT ORIGINAL MYLARS AND ONE SET OF CORRECTED PRINTS & REDLINES, after bonds have been posted.
7. A COMPLETE SET OF TRACT WATER PLANS.
8. PROVIDE OR REVISE CITY OF PALMDALE COST ESTIMATE FORM.
9. PROVIDE PROOF OF RECORDED EASEMENT FOR SANITARY SEWERS, as shown on plan, page \_\_\_\_\_.

1<sup>st</sup> \_\_\_\_\_ 2<sup>nd</sup> \_\_\_\_\_ 3<sup>rd</sup> \_\_\_\_\_ check \_\_\_\_\_

By

Date

ADDITIONAL REQUIREMENTS:

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PARTICIPATION LETTER

CITY OF PALMDALE

DATE \_\_\_\_\_

CITY ENGINEER PALMDALE PRIVATE CONTRACT \_\_\_\_\_

TRACT NO. \_\_\_\_\_

Dear Sir:

The following is a full and complete list of all abutting properties which have contributed to the cost of construction of the sewer system constructed under Palmdale Private Contract No. \_\_\_\_\_ .

(Notarization not required) \_\_\_\_\_

Owners Signature

NOTE: Properties connecting to public sewers constructed at no cost to the abutting property may be made subject to charges as prescribed by Section 13.08.140 of Ordinance 1376 as amended.

UNDERGROUND LETTER

CITY OF PALMDALE PALMDALE PRIVATE CONTRACT NO. \_\_\_\_\_

SEWERS IN \_\_\_\_\_

VICINITY OF \_\_\_\_\_

Dear Sir:

I have made a search of the available records as well as a physical inspection of the site and all water wells found within 200 feet of the sewers, if any, are shown on the plans.

In compliance with Section 5615 of Ordinance 6130, I have checked and determined from the following utility or other companies having substructures in the affected area that the location and size of such structures, as shown on the submitted plans, are the same as shown upon such company's record and to the best of my knowledge there is no interference with the proposed sewers.

\_\_\_\_\_  
Time Warner Cable

\_\_\_\_\_  
Water Purveyor (District)

\_\_\_\_\_  
Southern California Gas Company.

\_\_\_\_\_  
Telephone Company

\_\_\_\_\_  
Southern California Edison Company

By: \_\_\_\_\_

R.C.E. No. \_\_\_\_\_

## GENERAL NOTES

- 1) Elevations are in English units of feet based on North American Vertical Datum of 1988, with the latest adjustment as shown in Bench Mark List Palmdale Quad.
- 2) No revisions shall be made to these plans without the approval of the City Engineer.
- 3) No representative of the City Engineer will survey or lay out any portion of the work.
- 4) Grades to which this sewer is to be constructed are shown on plans and profiles. Grade points for top of curbs, centerline of streets, or centerline of alleys are shown by circles on profiles. At all points between designated points the grade shall be established so as to conform to a straight line drawn between said designated points.
- 5) The engineer of record shall furnish the City Engineer with grade sheets and stationing for all house laterals and "y" or "t" branches and shall provide stakes for them at their proper locations with stationing plainly marked. All house laterals shall be constructed in a straight alignment at right angles from the main line sewer except as shown on the plans. House laterals from chimneys shall not have an angle of less than 45 degrees with the main line sewer. Any change in alignment shall be requested in writing by the engineer of record.
- 6) The private engineer shall furnish the house lateral depth at the property line below the top of curb elevation for each house lateral on the grade sheet.
- 7) Before work can be started, the contractor must obtain a permit to excavate in city streets from the city engineer, 38250 Sierra Highway, and pay a fee to the City of Palmdale to cover the cost of construction inspection and record plans.
- 8) Approval of this plan by the City Engineer does not constitute a representation as to the accuracy of the location or the existence of any underground utility pipe or structure within the limits of this project. This note applies to all pages.
- 9) Refer to section 7.10.4.1 of the Standard Specifications for Public Works Construction, regarding safety orders.
- 10) Prior to the issuance of the required sewer construction permit, the contractor shall obtain, and file with the City Engineer, a copy of a permit for excavations and trenches from the state of California, division of industrial safety, and a certificate of worker's compensation insurance with the City of Palmdale named as certificate holder, to be notified 30 days prior to cancellation of policy.
- 11) If work is to be done on a state highway, a permit must be obtained from the State of California, Division of Highways, 120 South Spring Street, Los Angeles, CA.
- 12) The engineer of record signing these plans is responsible for the accuracy and acceptability of the work hereon. In the event of discrepancies arising during

construction, the private engineer shall be responsible for determining an acceptable solution and revising the plans for approval by the City Engineer.

- 13) No connection for the disposal of industrial wastes shall be made to sewers shown on these plans until a permit for industrial wastewater discharge has been issued by the County Sanitation District of Los Angeles County.
- 14) Before breaking into or construction on a sanitation district owned sewer, and prior to final acceptance of the sewer, the Sanitation District shall be notified by telephone (661) 947-5027 so that the required inspections can be made.
- 15) All sanitary sewers may require videotaping prior to the final acceptance for maintenance, as determined by the Public Works inspector.
- 16) The engineer of record shall be required to provide as-built sewer plans to the City Engineer prior to the issuance of a certificate of occupancy.
- 17) The sanitary sewer shown on these plans will not be accepted for maintenance until such time as the outlet sewer (PC\_\_\_\_\_ ) has been constructed and accepted for maintenance by the City of Palmdale.
- 18) Important notice - Section 4216/4217 of the Government Code requires a dig alert identification number be issued before a "permit to excavate" will be valid. For your dig alert i.d. number, call underground service alert at 1-800-422-4133, two working days before you dig.

#### CONSTRUCTION NOTES

- 1) Work shall be performed according to the latest editions of the Standard Specifications for Public Works construction and the special provisions for the construction of sanitary sewers (supplement to the standard specifications) and shall be completed only in the presence of the City Engineer or the City Engineer's representative. All references to standard specifications and special provisions made hereon shall be to these editions. Other references made hereon are to the latest editions of APWA Standard Plans for Public Works Construction, Los Angeles County Department of Public Works Standard Plans, and the standard drawings of the City of Palmdale Engineering Design Standards.
- 2) The contractor shall notify the City of Palmdale by telephone (661) 267-5255 at least twenty-four hours before starting any work under this contract.
- 3) House laterals to be constructed with inverts at property line 6 feet below curb grade except as noted.
- 4) Wye or tee branches may be used for connections to mainline sewers, except as noted.
- 5) All structures shall be either brick sewer manholes per APWA Standard Plan 203-0 or precast concrete sewer manholes per APWA Standard Plan 200-2, except as noted.

- 6) Provide stakes on the property line or property lines produced at right angles to the sewer line at the centerline of each manhole.
- 7) Vitrified clay pipe joints shall be type "G" per Standard Specifications Section 208-2 of the Standard Specifications for Public Works Construction.
- 8) All joints between ductile iron pipe and vitrified clay pipe shall be made with a rubber sleeve joint, type "C" or "D", (with bushing if necessary) per Section 208-2 of the Standard Specifications for Public Works Construction.
- 9) Sewers to be tested for leakage per Section 306-1.4 of the Standard Specifications for Public Works Construction.
- 10) Bedding material shall be in accordance with Los Angeles County Standard Plans 2021-0 and 3080-1, and shall be in full compliance with Section 306-1.2.1 of the Standard Specifications for Public Works Construction. Concrete encasement per Los Angeles County Standard Plan 2023-1, Case II, shall be required when the sewer has less than four feet of cover, and concrete encasement, Case 4, and concrete backfill per Los Angeles County Standard Plan 3080-1, shall be required when the sewer has less than one and one half feet of cover. In no case shall sewer have less than one foot of cover.
- 11) Sewer trench backfill and repair criteria:
- 12) For trenches outside of existing or future right-of-way
- 13) Backfill trench, per standard specifications Section 306-1.3, and replace other earth removed so as to achieve the natural or finish grades and slopes required and approved for this project by the city engineer.
- 14) All backfill earth replaced shall be compacted to a min. Of 90% of maximum density per astm d 698-57t, as modified. Acceptable certification of compaction shall be submitted to the city engineer, prior to the issuance of a certificate of partial acceptance.
- 15) For trenches within existing or future right-of-way:
- 16) Backfill trench and repair pavement per Standard Specifications Section 306-1.3 and City of Palmdale Standard No. M-6.1 and M-6.2, as applicable, within City of Palmdale jurisdiction so as to achieve the existing or proposed grades required and approved for this project by the city engineer.
- 17) Within state highway or railroad jurisdiction, backfill trench and repair pavement in accordance with requirements of the permits and per Los Angeles County standard plan 3081-0 (for state highway).
- 18) All wyes and/or house lateral sewers are to be located at least five feet apart and not closer than five feet to any manhole.
- 19) All saddle connections to city owned mainline sewer are to be performed by City of Palmdale Department of Public Works Sewer Maintenance Division unless said department has approved said connections to be performed by contractor.



Contractor shall notify the City Sewer Maintenance Division 48 hours prior to requiring connections.

- 20) If during the course of construction it is determined, and is not addressed by the plans, that there is less than four feet of cover over the top of a main line or house lateral sewer, or a power pole is within three feet, the pipe shall be encased per Los Angeles County Standard Plan 2023-1, Case II, unless otherwise approved by the city engineer.

#### PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

The existence and location of any underground utility pipes or structures shown on these plans are obtained by a search of available records. To the best of our knowledge there are no existing utilities except as shown on this plan. The Contractor is required to take due precautionary measures to protect the utility lines and any other lines not shown on this plan. Prior to excavation, the Contractor shall call 1-800-422-4144 for the underground location of utility lines. The contractor shall also call the applicable utility companies to verify the locations.