- ALL CONSTRUCTION SHALL CONFORM TO THIS PLAN, THE CALIFORNIA BUILDING CODE, AND STANDARDS PERTAINING THERETO. THESE DOCUMENTS SHALL BE MADE A PART HEREOF.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING DIMENSIONS, DATA AND MEASUREMENTS AT THE BUILDING SITE PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS, PORTER & ASSOCIATES, INC. MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS.
- EXISTING UTILITY AND UNDERGROUND LINES HAVE BEEN SHOWN ON THIS PLAN ACCORDING TO AVAILABLE RECORDS. THE ENGINEER IS NOT RESPONSIBLE FOR POSSIBLE ERRORS OR OMISSIONS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF ANY WORK. UNDERGROUND SERVICE ALERT (U.S.A.: 1-800-227-2600) SHALL BE CONTACTED AT LEAST TWO WORKING DAYS PRIOR TO ANY CONSTRUCTION OR EXCAVATION.
- ANY EXISTING IMPROVEMENTS OR UTILITIES THAT ARE REMOVED, DAMAGED OR UNDERCUT BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. AS DIRECTED BY THE ENGINEER AND APPROVED BY THE GOVERNING AUTHORITY.
- . IF A PROBLEM OR CONFLICT SHOULD ARISE DURING THE COURSE OF THE PROJECT, IT IS THE RESPONSIBILITY OF THE OWNER OR THE CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY PRIOR TO ANY FURTHER WORK.
- 5. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND SUPERVISION NECESSARY FOR A COMPLETE AND FUNCTIONAL PRODUCT.
- ALL WORK WHICH IS DEFECTIVE IN ITS CONSTRUCTION OR DEFICIENT IN ANY OF THE REQUIREMENTS OF THESE DRAWINGS AND SPECIFICATIONS SHALL BE REMEDIED, OR REMOVED AND REPLACED BY THE CONTRACTOR IN AN ACCEPTABLE MANNER, AND NO COMPENSATION WILL BE ALLOWED FOR SUCH CORRECTION.
- 8. IN THE EVENT CONSTRUCTION STAKING BASED ON THE CONSULTANT'S PLANS, DRAWINGS OR OTHER DOCUMENTS IS ACCOMPLISHED BY ANYONE OTHER THAN THE CONSULTANT, THE OWNER 19. FILL AREAS SLOPING STEEPER THAN 5:1 SHALL BE KEYED AND BENCHED TO SUPPORT FILL. OR CONTRACTOR SHALL NOTIFY THE BUILDING OFFICIAL IN WRITING AS TO THE CHANGE OF ENGINEER IN RESPONSIBLE CHARGE.
- 9. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT; INCLUDING EROSION. SEDIMENTATION & DUST CONTROL PLAN AND STORM WATER POLLUTION PREVENTION PLAN IMPLEMENTATION AND THE SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; 22. FILL MATERIAL SHALL BE SUBJECT TO THE GEOTECHNICAL ENGINEERS APPROVAL AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED. IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- 10. IF THE CONTRACTOR IS IN DOUBT AS TO THE MEANING OF ANY PART OF THE DRAWINGS AND SPECIFICATIONS OR FINDS DISCREPANCIES IN OR OMISSIONS FROM THE DRAWINGS, HE SHALL SUBMIT A WRITTEN REQUEST FOR AN INTERPRETATION OR A CORRECTION THEREOF, PRIOR TO FILING HIS BID PRICE FOR THE PROJECT.
- PORTER & ASSOCIATES, INC. WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ANY AND ALL CHANGES TO THESE PLANS MUST BE APPROVED IN WRITING BY PORTER & ASSOCIATES, INC.

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- ALL GRADING AND SITE PREPARATION SHALL CONFORM TO THIS PLAN AND THE CALIFORNIA BUILDING CODE. THESE DOCUMENTS SHALL BE MADE A PART HEREOF.
- 2. ALL DESIGN ELEVATIONS SHOWN ARE TO FINISHED GRADE, UNLESS OTHERWISE NOTED. THE GEOTECHNICAL ENGINEER, DESIGN ENGINEER, AND INSPECTOR SHALL BE NOTIFIED AT
- ALL GRADING WORK SHALL BE SUPERVISED AS "ENGINEERED GRADING" IN ACCORDANCE WITH THE BUILDING CODE. THE DESIGN ENGINEER SHALL EXERCISE SUFFICIENT SUPERVISORY CONTROL DURING GRADING AND CONSTRUCTION TO INSURE COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND CODES WITHIN HIS PURVIEW.

LEAST 2 DAYS BEFORE THE START OF ANY WORK AND PRIOR TO PLACING ANY FILL MATERIAL.

- 5. ANY TRENCHING TO BE DONE WITHIN THE PROJECT SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THIS PLAN.
- 6. SITE PREPARATION AND GRADING SHALL BE DONE UNDER THE SUPERVISION OF THE INSPECTIONS DURING THE PREPARATION OF THE NATURAL GROUND AND THE PLACEMENT AND COMPACTION OF THE FILL TO BE SATISFIED THAT THE WORK IS BEING PERFORMED IN ACCORDANCE WITH THE PLAN AND APPLICABLE CODES.
- THE CONTRACTOR SHALL PREVENT A DUST NUISANCE FROM ORIGINATING FROM THE SITE OF WORK AS A RESULT OF HIS OPERATIONS DURING THE EFFECTIVE PERIOD OF THIS CONTRACT. PREVENTATIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO MITIGATE THE IMPACT OF DUST AND PM10 EMISSIONS ACCORDING TO THE SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT REGULATION VIII (8). IN ADDITION TO ANY DUST CONTROL PLAN, THESE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
- A. PRE-ACTIVITY:
- A. PRE-WATER SITE SUFFICIENT TO LIMIT VISIBLE DUST EMISSIONS (VDE) TO 20%
- PHASE WORK TO REDUCE THE AMOUNT OF DISTURBED SURFACE AREA AT ANY ONE B. DURING ACTIVE OPERATIONS:
- A. APPLY WATER OR OTHER APPROVED SUBSTANCE SUFFICIENT TO LIMIT VDE TO 20%
  - B. LIMIT ACTIVITY TO PERIODS OF LOW OR NO WIND, OR CONSTRUCT AND MAINTAIN WIND BARRIERS SUFFICIENT TO LIMIT VDE TO 20% OPACITY. C. APPLY WATER OR OTHER APPROVED SUBSTANCE TO UNPAVED HAUL/ACCESS
- ROADS AND UNPAVED VEHICLE/EQUIPMENT TRAFFIC AREAS SUFFICIENT TO LIMIT VDE TO 20% OPACITY AND MEET THE CONDITIONS OF A STABILIZED UNPAVED ROAD SURFACE.
- TEMPORARY STABILIZATION DURING PERIODS OF INACTIVITY: RESTRICT VEHICULAR ACCESS TO THE AREA.
  - APPLY WATER OR OTHER APPROVED SUBSTANCE SUFFICIENT TO COMPLY WITH THE CONDITIONS OF A STABILIZED SURFACE. IF ANY AREA HAVING 0.5 ACRES OR MORE 8. OF DISTURBED SURFACE AREA REMAINS UNUSED FOR SEVEN OR MORE DAYS, THE AREA MUST COMPLY WITH THE CONDITIONS FOR A STABILIZED SURFACE AREA AS DEFINED IN RULE 8011.
- CARRYOUT AND TRACKOUT ON PUBLIC ROADS: A. ALL VISIBLE CARRYOUT AND TRACKOUT WITHIN 50 FEET OF THE SITE SHALL BE REMOVED AT THE END OF EACH WORKDAY. TRACKOUT BEYOND 50 FEET OF THE
  - SITE SHALL BE REMOVED IMMEDIATELY. CLEANUP SHALL BE ACCOMPLISHED BY MANUAL SWEEPING OR APPROVED
  - EQUIPMENT AND METHOD AS SPECIFIED BY THE SJVUAPCD. THE USE OF BLOWER DEVICES OR DRY ROTARY BRUSHES OR BROOMS. FOR REMOVAL OF CARRYOUT AND TRACKOUT ON PUBLIC ROADS IS EXPRESSLY
  - PROHIBITED ANY PERMITS REQUIRED FOR MUD AND DIRT CLEANUP SHALL BE OBTAINED BY THE CONTRACTOR.
- 8. IF DURING GRADING OR CONSTRUCTION, ANY PLUGGED, ABANDONED OR UNRECORDED WELLS ARE UNCOVERED OR DAMAGED, THE DEPARTMENT OF CONSERVATION / DIVISION OF OIL GAS AND GEOTHERMAL RESOURCES SHALL BE CONTACTED TO INSPECT AND APPROVE ANY
- 9. IF DURING CONSTRUCTION ACTIVITIES OR GROUND DISTURBANCE, CULTURAL RESOURCES ARE UNCOVERED, THE CONTRACTOR SHALL STOP WORK AND RETAIN A QUALIFIED ARCHEOLOGIST FOR FURTHER STUDY. THE CONTRACTOR SHALL NOTIFY THE PROPER AUTHORITIES AND BE SUBJECT TO ANY MITIGATION MEASURES REQUIRED BY THE ARCHAEOLOGIST.
- 10. DURING GRADING, REASONABLE SEARCHING SHOULD BE PERFORMED FOR CONCEALED SUBSURFACE OBSTRUCTIONS. ALL ABANDONED SUBSURFACE OBSTRUCTIONS SHOULD BE REMOVED. IF THE TERMINUS OF ANY ABANDONED PIPING IS OUTSIDE THE PROJECT LIMITS, THE PIPING SHOULD BE REMOVED WITHIN THE PROJECT AND PROPERLY CAPPED AT THE PROJECT BOUNDARY.
- 11. ALL ONSITE OR OFFSITE OBSTRUCTIONS SHALL BE REMOVED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- 12. THE SITE SHALL BE CLEARED AND GRUBBED OF ALL VEGETATION, INCLUDING ROOTS, LOOSE FILL, TRASH AND OTHER DELETERIOUS MATERIALS ACCORDING TO THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION. ANY HOLE OR VOIDS LEFT AFTER THE REMOVAL OF TREES, ROOTS, SEPTIC TANKS, ABANDONED FOUNDATIONS, PIPELINES OR THE LIKE, SHALL BE FILLED AS REQUIRED BY THE GEOTECHNICAL ENGINEER.

## **GRADING NOTES (CONTINUED**

- 13. GROUND SURFACES TO RECEIVE CONCRETE DRIVEWAYS AND BITUMINOUS PAVEMENTS SHOULD BE SCARIFIED AND COMPACTED TO A MINIMUM DEPTH OF 12 INCHES BELOW THE EXISTING GROUND SURFACE IN AREAS TO BE FILLED, UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL INVESTIGATION OR DIRECTED BY THE GEOTECHNICAL ENGINEER. COMPACTION IN PROPOSED PAVEMENT AREAS SHOULD BE TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS OBTAINED BY ASTM TEST METHOD D1557-78, AND SHOULD EXTEND TO A MINIMUM DISTANCE OF 2 FEET BEYOND THE OUTSIDE EDGES OF PAVEMENTS.
- 14. PAD AREAS SHALL BE CLEARED OF ALL VEGETATION AND OTHER UNSUITABLE MATERIAL, SCARIFIED AND COMPACTED TO A MINIMUM DEPTH OF 12 INCHES BELOW THE EXISTING GROUND SURFACE IN AREAS TO BE FILLED OR 12 INCHES BELOW FINISH PAD IN CUT AREAS, UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL INVESTIGATION OR DIRECTED BY THE GEOTECHNICAL ENGINEER. COMPACTION IN PROPOSED AREAS ON THE SITE ON WHICH STRUCTURES ARE TO BE PLACED MUST BE COMPACTED TO 90% DENSITY FOR A MINIMUM DISTANCE OF 5 FEET BEYOND THE OUTSIDE EDGES OF THE FOUNDATIONS OF THE STRUCTURES.
- THE DEPTH OF OVEREXCAVATION AND COMPACTION IN PAD AREAS SHALL CONFORM TO THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEERING INVESTIGATION. RE-COMPACTION OF OVER-EXCAVATED MATERIAL SHALL BE TO AT LEAST 90% OF MAXIMUM DRY DENSITY.
- 15. FLOODING, JETTING, OR SIMILAR CONSOLIDATION METHODS OF COMPACTION SHALL NOT BE
- 16. THE GRADING CONTRACTOR SHALL GRADE THE PAVING AREAS TO WITHIN 0.1 FOOT OF SUBGRADE, IF SUCH AREAS SHOULD BE FOUND TO BE MORE THAN 0.1 FOOT FROM THE DESIGN SUBGRADE ELEVATION AFTER COMPLETION OF GRADING, THE GRADING CONTRACTOR SHALL RETURN AND CORRECT THE GRADING AT NO COST TO THE OWNER.
- 17. SURFACE DRAINAGE SHALL BE 1% MINIMUM, EXCEPT AS WAIVED BY THE INSPECTOR.
- 18. ALL CUT AND FILL SLOPES SHALL BE 2:1 (2 HORIZONTAL TO 1 VERTICAL) OR FLATTER, UNLESS OTHERWISE NOTED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
- 20. FILL SLOPES SHALL NOT TOE OUT WITHIN 12 FEET HORIZONTALLY OF THE TOP OF EXISTING OR PLANNED CUT SLOPES.
- 21. ALL SLOPES IN EXCESS OF 3 FEET IN VERTICAL HEIGHT SHALL BE PREPARED AND MAINTAINED TO CONTROL AGAINST EROSION.
- 23. ENGINEERED FILL MATERIALS SHOULD BE PLACED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO RECOMMENDATION EXISTS, FILL SHALL BE PLACED IN THIN LAYERS LESS THAN 6 INCHES IN UNCOMPACTED THICKNESS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (OR A MOISTURE CONTENT COMMENSURATE WITH EFFECTIVE COMPACTING AND SOIL STABILITY). ENGINEERED FILL MATERIALS SHOULD BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DENSITY AS DETERMINED BY APPROVED METHOD THE CURRENT CALIFORNIA BUILDING CODE AND CERTIFIED BY TESTS AND REPORTS FROM THE GEOTECHNICAL ENGINEER.
- 24. ANY CUT AND FILL QUANTITIES SHOWN ON THIS PLAN ARE FOR PERMIT PURPOSES ONLY. THE ENGINEER MAKES NO WARRANTY EITHER DIRECT OR IMPLIED THAT THIS WILL BE THE ACTUAL COMPACTION FACTOR. THE CONTRACTOR SHALL, AFTER EXAMINING THE PLAN, GEOTECHNICAL INVESTIGATION AND THE SITE TERRAIN, PREPARE HIS BID PRICE FOR THE PROJECT, BASED ON HIS OWN EARTHWORK CALCULATIONS. IF A DEFICIENCY OR AN EXCESS OF SOIL ARISES DURING GRADING. THE GRADING CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER, WHO SHALL DETERMINE IF ADJUSTMENTS CAN BE MADE TO IMPROVE THE BALANCE BETWEEN CUT AND FILL.
- 25. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE BORROW SITE WITH THE SOILS
- 26. EXPORT MATERIAL SHALL BE DISPOSED OF AT AN APPROVED SITE.
- 27. IT IS THE RESPONSIBILITY OF THE OWNER AND THE CONTRACTOR TO
  - FAMILIARIZE THEMSELVES WITH THE FOREGOING RECOMMENDATIONS, NOTIFY THE ENGINEER WHEN SITE PREPARATION BEGINS AND BEFORE THE PLACEMENT
- C. INFORM THE ENGINEER OF ITEMS ENCOUNTERED DURING EARTHWORK OPERATIONS WHICH MIGHT EFFECT FOUNDATION STABILITY, SO THAT THE ITEMS MAY BE TREATED UNDER THE 3. PERPENDICULAR CURB RAMP SIDE SLOPES SHALL NOT EXCEED 10% GRADIENT. ENGINEER'S DIRECTION. (THESE ITEMS MIGHT INCLUDE BURIED TRASH OR VEGETATION, PIPELINES, ABANDONED WELLS, OLD FILLS, ETC.)
- 28. UPON COMPLETION OF GRADING AND BEFORE THE START OF CONSTRUCTION. A FINAL GEOTECHNICAL INVESTIGATION COVERING THE SITE PREPARATION AND GRADING SHALL BE SUBMITTED TO THE OWNER BY THE GEOTECHNICAL ENGINEER.

## ONSITE TRENCHING SPECIFICATIONS

- TRENCHING SHALL MEET THE REQUIREMENTS OF CAL-OSHA TRENCHING ORDERS AND THE CONTRACTOR SHALL COMPLY WITH SECTION 6422 OF THE LABOR CODE.
- TRENCHING SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH DETAIL ON THIS
- 3. ALL EXISTING PAVING AND SURFACING REMOVED, DAMAGED OR UNDERCUT SHALL BE REPLACED WITH MINIMUM 3" AC PAVING OVER MINIMUM 4" CLASS II AGGREGATE BASE OVER MINIMUM 12" NATURAL GROUND COMPACTED TO 95% MAX DENSITY.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ALL TRENCHES. IF TRENCHES OR PIPING BECOME DAMAGED DUE TO WATER INFILTRATION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THE TRENCH AND PIPING TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 5. FLOODING, JETTING, OR SIMILAR CONSOLIDATION METHODS SHALL NOT BE USED FOR BACKFILL
- 6. CLASS I BEDDING AND EMBANKMENT IS REQUIRED FOR ALL PLASTIC SEWER PIPE WITHIN THE PIPE ZONE, CLASS I BACKFILL IS NOT REQUIRED IF PIPE SLOPE EXCEEDS 1%.
- 7. COMPACTION TESTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE INSPECTOR. THE COST OF RETESTING DUE TO FAILED COMPACTION TESTS WILL BE BACKCHARGED TO THE CONTRACTOR.
- THE TRENCH BOTTOM SHALL BE CONSTRUCTED TO PROVIDE A FIRM, STABLE AND UNIFORM SUPPORT FOR THE FULL LENGTH OF PIPE, BELL HOLES SHALL BE PROVIDED AT EACH JOINT. ANY PORTION OF THE TRENCH BOTTOM EXCAVATED BELOW GRADE SHALL BE BACKFILLED TO GRADE AND COMPACTED AS REQUIRED TO PROVIDE FIRM PIPE SUPPORT. WHEN AN UNSTABLE SUB GRADE CONDITION IS ENCOUNTERED WHICH WILL PROVIDE INADEQUATE PIPE SUPPORT, OR WHEN LEDGE ROCK, BOULDERS, OR LARGE STONES ARE ENCOUNTERED, ADDITIONAL TRENCH DEPTH SHALL BE EXCAVATED AND REFILLED WITH SUITABLE FOUNDATION MATERIAL AND COMPACTED.
- 9. CONTRACTOR SHALL COMPLY WITH TRENCHING RECOMMENDATIONS OF THE GEOTECHNICAL

# CONCRETE SPECIFICATIONS

CONCRETE SHALL BE 3,000 PSI UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.

2. CONCRETE SHALL CONFORM TO SECTION 90 OF CALTRANS STANDARD PLANS AND

- SPECIFICATIONS CURRENT EDITION.
- ONE MANUFACTURER.
- 4. ALL AGGREGATE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C33.
- 5. ALL WATER FOR CONCRETE SHALL BE CLEAN AND FREE FROM DETRIMENTAL AMOUNTS OF ACID, ALKALI AND ORGANIC MATTER AND SHALL BE FROM A DOMESTIC WATER SUPPLY.
- CONCRETE SHALL BE CURED AS SPECIFIED IN SECTION 90-1.03 OF CALTRANS STANDARD PLANS AND SPECIFICATIONS CURRENT EDITION.
- 7. CONTROL JOINTS IN SIDEWALK SHALL BE SPACED NO MORE THAN 8' ON CENTER AND NO MORE THAN 15' ON CENTER FOR OTHER FLAT WORK.
- 8. CONTROL JOINTS IN CURBS, CURB & GUTTER, AND "V" GUTTER SHALL BE SPACED @ 15' O.C.
- COMPACT SUBGRADE UNDER ALL CONCRETE CURBS, FLATWORK, ETC. TO A MINIMUM DEPTH OF 6" TO 90% MAXIMUM DENSITY. CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS PREPARED BY A CERTIFIED LAB TO THE OWNER & CORRECT FAILURES AT CONTRACTOR'S EXPENSE.

## ASPHALT CONCRETE NOTES

- THIS SECTION COVERS THE FURNISHING OF LABOR AND EQUIPMENT FOR EXCAVATION, TRENCHING, BACKFILLING AND ALL OTHER EARTHWORK OPERATIONS REQUIRED TO COMPLETE THE INSTALLATION OF ASPHALT PAVING AS INDICATED ON THE DRAWINGS AND HEREIN SPECIFIED. ALL REFERENCES TO PROVISIONS SHALL BE TO THE CALTRANS STANDARD SPECIFICATIONS, CURRENT EDITION, UNLESS OTHERWISE NOTED.
- AGGREGATE BASE SHALL BE "CLASS 2" UNLESS OTHERWISE NOTED AND SHALL CONFORM TO THE PROVISIONS IN SECTION 26, "AGGREGATE BASES," OF THE CALTRANS STANDARD SPECIFICATIONS. AGGREGATE BASE SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY.
- ASPHALT CONCRETE SHALL BE "TYPE B" UNLESS OTHERWISE NOTED AND SHALL CONFORM TO THE PROVISIONS IN SECTION 39. "ASPHALT CONCRETE," OF THE CALTRANS STANDARD SPECIFICATIONS AND THE FOLLOWING SPECIAL PROVISIONS:
- A. ASPHALT CONCRETE SHALL HAVE A BITUMINOUS BINDER. THE BINDER SHALL BE PG 64-10 PERFORMANCE GRADED ASPHALT AND SHALL CONFORM TO THE REQUIREMENTS OF THE TABLE FOR PERFORMANCE GRADED ASPHALT BINDER IN SECTION 92-1.02(B), "GRADES" OF THE STANDARD SPECIFICATIONS.
- THE AMOUNT OF BITUMINOUS BINDER TO BE MIXED WITH THE MINERAL AGGREGATE SHALL BE BETWEEN FOUR PERCENT (4%) AND SIX PERCENT (6%) BY WEIGHT OF DRY MINERAL AGGREGATE. THE EXACT AMOUNT OF BITUMINOUS BINDER TO BE MIXED WITH THE MINERAL AGGREGATE WILL BE DETERMINED BY THE ENGINEER.
- ASPHALT CONCRETE SURFACING SHALL BE CONSTRUCTED IN ACCORDANCE WITH REQUIREMENTS OF SECTION 39. A PRIME COAT SHALL NOT BE APPLIED TO THE BASE PRIOR TO PLACING ASPHALT CONCRETE SURFACING. A TACK COAT SHALL BE APPLIED PRIOR TO PAVING OVER EXISTING ASPHALT CONCRETE SURFACING. TACK COAT SHALL CONFORM TO CALTRANS STANDARD SPECIFICATION SECTION 94; ASPHALT GRADE EMULSION SS-1, SS-1N, CSS-1 AND CSS-1N.
- D. ASPHALT CONCRETE SHALL BE COMPACTED TO 92-94% OF THE MAXIMUM THEORETICAL DENSITY AS DETERMINED BY ASTM D-2041. IN-PLACE DENSITY SHALL BE DETERMINED IN
- ACCORDANCE WITH CALIFORNIA TEST 375. E. AT CONNECTIONS TO EXISTING AC SURFACES. THE EXISTING SURFACE SHALL BE SAWCUT
- F. THE MIXTURE SHALL BE APPLIED AT A MINIMUM TEMPERATURE OF 225°F. SPREADING SHALL BE PERFORMED BY SELF-PROPELLED ASPHALT PAVERS THAT PRODUCE AN ASPHALT CONCRETE SURFACING OF UNIFORM SMOOTHNESS AND TEXTURE.
- G. ALL SPILLAGE OF ASPHALT CONCRETE OUTSIDE OF THE DESIGNATED PAVING AREA SHALL BE PROMPTLY SWEPT UP AND REMOVED.
- H. FOG SEAL SHALL BE APPLIED TO ALL NEWLY PAVED SURFACES WITHIN TWO WEEKS AFTER THE PAVING IS PLACED. FOG SEAL SHALL BE APPLIED IN ACCORDANCE WITH SECTION 37-1; GRADE MEDIUM FINE; ASPHALTIC EMULSION GRADE SS-1.
- I. FINISHING ROADWAY SHALL CONFORM TO THE PROVISIONS OF SECTION 22.
- ALL ASPHALT CONCRETE SHALL BE CONSTRUCTED TO THE TOLERANCES ALLOWED IN SECTION 39-6.03 AS MODIFIED BY THESE PLANS. A.C. AND BASE THICKNESS SHOWN ON THESE PLANS ARE MINIMUMS AND LESSER THICKNESS WILL NOT BE ALLOWED.
- 4. A TINTED PRE-EMERGENT HERBICIDE SHALL BE APPLIED OVER NATURAL GROUND IN ALL AC PAVED PARKING LOT AREAS AND DRIVE AISLES PRIOR TO PLACING ANY BASE OR PAVING. APPLY IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. NO WEED CONTROL CHEMICAL IS TO BE APPLIED TO AREAS DESIGNATED FOR PLANTING.

#### <u>ACCESSIBILITY NOTES</u>

HANDRAILS ARE PROVIDED.

- ACCESSIBILITY NOTES ARE PROVIDED FOR REFERENCE ONLY. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE CALIFORNIA BUILDING CODE AND ADA STANDARDS. THE CONTRACTOR SHALL OBTAIN THE LATEST EDITION THEREOF.
- 2. CURB RAMPS SHALL BE 8.33% MAXIMUM GRADE.
- 4. SURFACE SLOPE OF RAMPS SHALL NOT EXCEED 8.33%. 5. ACCESSIBLE ROUTE SLOPES SHALL NOT EXCEED 5%, UNLESS CONSTRUCTED AS A RAMP AND
- 6. ACCESSIBLE ROUTE CROSS SLOPES SHALL NOT EXCEED 2%
- 7. RAMP LANDINGS SHALL NOT EXCEED 2% MAXIMUM GRADE IN ANY DIRECTIONS.
- GRATINGS LOCATED WITHIN ACCESSIBLE ROUTES SHALL HAVE MAXIMUM 1/2" OPENINGS IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- TRANSITIONS ALONG ACCESSIBLE ROUTES SHALL BE FLUSH WITH CHANGES IN LEVEL NO GREATER THAN 1/2". CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A MINIMUM GRADIENT OF 1:2. CHANGES IN LEVEL BETWEEN O" AND 1/4" MAY BE VERTICAL.
- 10. EXCEPT BETWEEN SIDEWALKS AND ADJACENT STREETS OR DRIVEWAYS, ABRUPT CHANGES IN LEVEL EXCEEDING 4" ALONG A PATH OF TRAVEL SHALL BE PROTECTED BY A WARNING CURB A MINIMUM OF 6" IN HEIGHT ABOVE THE WALKWAY SURFACE. A WARNING CURB IS NOT REQUIRED WHEN A GUARD OR HANDRAIL IS PROVIDED WITH A GUIDE RAIL CENTERED 2" MINIMUM AND 4" MAXIMUM ABOVE THE WALKWAY SURFACE.
- 11. ALL ACCESSIBLE DOORS SHALL HAVE LEVEL LANDINGS IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, CURRENT EDITION.
- 12. ACCESSIBLE PARKING STALLS AND LOADING AISLES SHALL NOT EXCEED 2% MAXIMUM GRADE IN ANY DIRECTION.

# ONSITE SEWER SPECIFICATIONS

ALL MATERIALS INSTALLATION SHALL CONFORM TO DIVISION 3 OF THE COUNTY OF KERN DEVELOPMENT STANDARDS AND WITH THE RECOMMENDATIONS OF THE MANUFACTURER.

2. ALL PIPE AND FITTINGS SHALL BE MARKED OR STAMPED WITH THE TRADE BRAND NAME OF THE

- MANUFACTURER, AND STRENGTH OR CLASS OF PIPE. PVC PIPE INSTALLATION:
- A. MATERIALS: PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATIONS D 3034 AND SDR 35. PIPE AND FITTINGS SHALL BE HOMOGENEOUS THROUGHOUT AND FREE FROM CRACKS, HOLES, FOREIGN INCLUSIONS OR OTHER INJURIOUS DEFECTS. FITTINGS SHALL BE INJECTION MOLDED AND SHALL BE INSTALLED IN LINE ON NEW PIPELINES; CUT-IN FITTINGS ARE NOT PERMITTED. B. JOINTS: USE ONLY ELASTOMERIC GASKET JOINTS. GASKETS SHALL COMPLY WITH ASTM F477. THE
- ASSEMBLY OF JOINTS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. C. INSTALLATION: PIPE AND FITTINGS SHOULD BE INSTALLED IN ACCORDANCE WITH ASTM D 2321. ONLY CLASS I OR II EMBEDMENT MATERIALS WILL BE CONSIDERED SUITABLE.
- 4. WYE-FITTINGS SHALL BE INJECTION MOLDED IN-LINE AND SHALL BE USED FOR ALL LATERAL CONNECTIONS AND SHALL BE ROTATED A MINIMUM OF 23' AND A MAXIMUM OF 45' ABOVE THE HORIZONTAL PLANE RUNNING THROUGH THE CENTERLINE OF THE MAIN. WYE FITTINGS ONLY SHALL BE USED FOR VCP. ALL SEWER STUBS SHALL BE CLOSED WITH A STANDARD PLASTIC PLUG (SOLVENT WELDED).
- CEMENT SHALL BE IN CONFORMANCE WITH ASTM C150, TYPE 2 AND SHALL BE ENTIRELY FROM 5. ALL BUILDING SEWERS SHALL EXTEND TO WITHIN FIVE FEET FROM THE BUILDING.
  - 6. UNLESS OTHERWISE NEEDED CLEANOUTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY OF KERN PLATE NO. S-7. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH COUNTY OF KERN PLATE NO. S-5. COVERS AND LIDS SHALL CONFORM TO COUNTY OF KERN PLATE NO. S-8.
  - SYSTEM TESTING: INSTALLED PIPE SHALL BE CLEANED AND TESTED IN ACCORDANCE WITH CHAPTER 1.30F THE SUBDIVISION DESIGN MANUAL AND WITH THE RECOMMENDATIONS OF THE MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. 24 HOURS NOTICE WILL BE REQUIRED FOR TEST AND INSPECTION.
  - PRIOR TO FINAL ACCEPTANCE OF THE SEWER SYSTEM, ALL ONSITE LINES SHALL BE INSPECTED WITH VIDEO EQUIPMENT DESIGNED FOR THIS PURPOSE AND AS APPROVED BY THE ENGINEER. THE TELEVISION CAMERA SHALL HAVE THE CAPABILITY OF ROTATING 360°, IN ORDER TO VIEW AND RECORD THE TOP AND SIDES OF THE PIPE, AS REQUIRED. THE VIDEO INSPECTIONS SHALL BE WITNESSED BY A REPRESENTATIVE OF THE ENGINEER, WHO WILL ALSO INITIAL AND DATE THE "CHAIN OF CUSTODY" FORM. A RECORDED VIDEO CASSETTE, THE COMPLETED "CHAIN OF CUSTODY" FORM AND A WRITTEN LOG (WHICH INCLUDES THE STATIONING, BASED ON THE STATIONING OF THE APPROVED PLANS, OF ALL CONNECTED LATERALS) OF THE INSPECTION SHALL BE PROVIDED FOR VIEWING AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO ACCEPTANCE. AFTER ACCEPTANCE OF THE SYSTEM, THE VIDEO CASSETTE, FORMS AND LOGS SHALL BECOME THE PROPERTY OF THE ENGINEER.

#### ONSITE WATER SPECIFICATIONS

THE FOLLOWING NOTES SHALL APPLY TO THE ONSITE WATER SYSTEM (INCLUDING FIRE SERVICE) FROM THE SERVICE CONNECTION TO THE BUILDING. ALL OTHER ASPECTS OF THE ONSITE WATER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BAKERSFIELD STANDARDS AND SPECIFICATIONS FOR DOMESTIC WATER SYSTEMS, CURRENT EDITION.

- CONTRACTOR SHALL FURNISH ALL MATERIALS, TOOLS, LABOR, EQUIPMENT, SUPERVISION AND TESTING NECESSARY FOR A COMPLETE INSTALLATION OF THE WATER SYSTEM.
- WATER PIPE 4" AND LARGER SHALL MEET THE REQUIREMENTS OF AWWA C900, CLASS 150. JOINTS SHALL HAVE ELASTOMERIC GASKETS AND CONFORM TO ASTM D3139. WATER PIPE 3" AND SMALLER SHALL CONFORM TO ASTM D1785 SCHEDULE 40 AND SHALL HAVE SOLVENT WELDED JOINTS. PIPE SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURER'S
- FITTINGS FOR AWWA C900 PIPE SHALL BE DUCTILE IRON CONFORMING TO AWWA 150. FITTINGS FOR SCHEDULE 40 PIPE SHALL CONFORM TO ASTM D2466 SCHEDULE 40.
- 4. GATE VALVES SHALL BE AWWA C509 WITH RESILIENT SEATS.
- 5. THE MINIMUM WIDTH OF TRENCH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 12". A MINIMUM OF 6" OF CLEARANCE SHALL BE PROVIDED FROM THE OUTSIDE FACE OF THE PIPE TO THE TRENCH WALL. WATER LINES AND SERVICES SHALL HAVE A MINIMUM OF 30" OF COVER FROM THE TOP OF PIPE TO FINISHED GRADE. THE BOTTOM OF THE TRENCH SHALL BE EXCAVATED TO THE ESTABLISHED GRADE LINE OF THE PIPE AND SHALL BE SMOOTH, EVEN AND FLAT FOR THE ENTIRE WIDTH OF THE TRENCH. AT EACH JOINT THE BOTTOM OF THE TRENCH SHALL BE RECESSED IN SUCH A MANNER AS TO RELIEVE THE PIPE BELL OR
- BACKFILL SHALL BE INITIALLY PLACED AND COMPACTED FROM THE PIPE BED TO THE SPRING LINE OF THE PIPE. BACKFILL SHALL BE SUFFICIENTLY RODDED OR HAND-TAMPED TO ENSURE REQUIRED COMPACTION IS ACHIEVED AROUND THE PIPE. SUBSEQUENT BACKFILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 6" IN COMPACTED THICKNESS. EMBEDMENT MATERIALS SHALL BE CLASS I OR II PER A.S.T.M. D2321, MAX SIZE=1".

COUPLING OF ALL LOAD AND TO ENSURE CONTINUOUS BEARING ALONG THE PIPE BARREL.

- 7. INSTALL 3" WIDE BLUE MAGNETIC DETECTION TAPE MARKED "WATER" AS MANUFACTURED BY MAGNATEC 12" ABOVE WATER LINES.
- AND REMOVED TO A NEAT LINE BEFORE THE PAVING OR AS DIRECTED BY THE ENGINEER. BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION AND IN ACCORDANCE WITH CITY OF BAKERSFIELD STANDARD PLATES. REQUESTS FOR SUBSTITUTION OF DEVICES MUST BE SUBMITTED PRIOR TO BIDDING AND MUST BE APPROVED BY THE ENGINEER AND THE CITY WATER MANAGER.
  - RUST INHIBITING ALUMINUM SILVER (RUST-OLEUM ALUMINUM SILVER #7715 OR EQUIVALENT.) FOR DETAILS COUNTY OF KERN DEVELOPMENT STANDARDS FIRE HYDRANT DETAIL STANDARD DRAWING, PLATE W-1.
  - 10. BURY FOR HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS C-502 OR C-503. HEIGHT TO BE SUFFICIENT TO ENSURE 30" MINIMUM COVER. BURY TO BE COATED WITH COAL TAR ENAMEL OR COAL TAR EPOXY.

PRIME CONSULTANT

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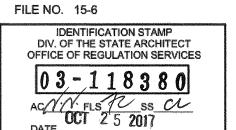
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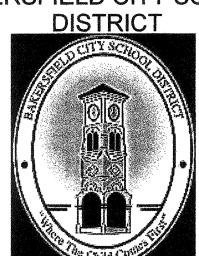
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BAKERSFIELD CITY SCHOOL



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Author

OPSC or OSHPD PROJ. NO: PROJECT NO: DRAWN BY:

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**CIVIL IMPROVEMENTS** NOTES

SHEET NUMBER

SHEET TITLE