- CONTRACTOR SHALL PROCURE AND CONFORM TO ALL CONSTRUCTION PERMITS REQUIRED BY THE CITY OF STAYTON, MARION COUNTY AND/OR ODOT, AS APPLICABLE. CONTRACTOR SHALL PROCURE A RIGHT-OF-ENTRY PERMIT FROM MARION COUNTY AND/OR ODOT FOR ALL WORK WITHIN MARION COUNTY OR STATE RIGHT-OF-WAY. CONTRACTOR SHALL CONFORM TO ALL CONDITIONS OF THE PERMIT.
- 2. CONTRACTOR SHALL PROCURE A RIGHT-OF-ENTRY PERMIT FROM AFFECTED RAILROADS FOR ALL WORK WITHIN THE RAILROAD RIGHT-OF-WAY AND CONFORM TO ALL CONDITIONS OF THE PERMIT
- 3. CONTRACTOR SHALL PROVIDE ALL BONDS AND INSURANCE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.
- 4. MATERIALS AND WORKMANSHIP FOR FACILITIES IN PUBLIC RIGHT-OF-WAY OR EASEMENTS SHALL CONFORM TO APPROVING AGENCIES' CONSTRUCTION SPECIFICATIONS WHEREIN EACH HAS JURISDICTION, INCLUDING BUT NOT LIMITED TO THE CITY, COUNTY, OREGON DEPARTMENT OF HUMAN SERVICES (DHS) THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) AND THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT).
- 5. UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DIRECTOR, CONSTRUCTION OF ALL PUBLIC FACILITIES SHALL BE DONE BETWEEN 7:00 A.M. AND 6:00 P.M., MONDAY THROUGH FRIDAY, AND BETWEEN 9:00 A.M. AND 6:00 P.M. SATURDAY.
- 6. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET APPLICABLE AGENCY REQUIREMENTS AND PROVIDE A COMPLETED PROJECT.
- 7. CONTRACTOR TO NOTIFY CITY, COUNTY, ODOT AND ALL UTILITY COMPANIES A MINIMUM OF 48 BUSINESS HOURS (2 BUSINESS DAYS) PRIOR TO START OF CONSTRUCTION, AND COMPLY WITH ALL OTHER REQUIREMENTS OF ORS 757.541 TO 757.571.
- 8. ANY INSPECTION BY THE ENGINEER, CITY, COUNTY OR OTHER AGENCIES SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
- 9. SOURCE OF TOPOGRAPHY SHOWN ON THE CIVIL PLANS ARE BASE MAPS PROVIDED BY (to be filled in as appropriate). EXISTING CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND ADJUST WORK PLAN ACCORDINGLY, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 10. HORIZONTAL DATUM: STAYTON LOCAL COORDINATE SYSTEM.
- 11. VERTICAL DATUM: NAVD 88.
- 12. PRIOR TO ANY CONSTRUCTION ACTIVITY IN PUBLIC RIGHT-OF-WAY, CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLAN TO THE CITY AND OTHER BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION FOR REVIEW AND APPROVAL. CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, TRAFFIC CONES PER CITY, COUNTY AND ODOT REQUIREMENTS IN ACCORDANCE WITH THE MUTCD (INCLUDING OREGON AMENDMENTS). ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY
- 13. RECORD DRAWINGS. THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF APPROVED PLANS AND SPECIFICATIONS ON THE CONSTRUCTION SITE AT ALL TIMES WHEREON HE WILL RECORD ANY APPROVED DEVIATIONS IN CONSTRUCTION FROM THE APPROVED PLANS, AS WELL AS THE STATION LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ENCOUNTERED. THESE FIELD RECORD DRAWINGS SHALL BE KEPT UP TO DATE AT ALL TIMES AND SHALL BE AVAILABLE FOR INSPECTION BY THE CITY UPON REQUEST. UPON COMPLETION OF CONSTRUCTION OF PUBLIC FACILITIES, CONTRACTOR SHALL SUBMIT A CLEAN SET OF FIELD RECORD DRAWINGS CONTAINING ALL AS-BUILT INFORMATION TO THE DESIGN ENGINEER FOR USE IN THE PREPARATION OF RECORD DRAWINGS FOR SUBMITTAL TO THE CITY.
- 14. THE CONTRACTOR SHALL SUBMIT A SUITABLE WARRANTY BOND PRIOR TO FINAL PAYMENT WHERE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.
- 15. CONTRACTOR SHALL PROCURE AND CONFORM TO DEQ 1200-C OR CN STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES WHERE ONE (1) OR MORE ACRES ARE DISTURBED.
- 16. PER OREGON FIRE CODE (OFC 505.1), NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS, OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FOR THE STREET OR ROAD FRONTING THE PROPERTY. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. NUMBERS SHALL BE A MINIMUM OF 4-INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 0.5-INCH. TEMPORARY ADDRESS SIGNS SHALL BE MOUNTED IN A VISIBLE LOCATION PRIOR TO AND DURING ANY CONSTRUCTION, AND THE PERMANENT NUMBERS MOUNTED PRIOR TO OCCUPANCY.
- 17. PER OREGON FIRE CODE (OFC 505.2), STREETS AND ROADS SHALL BE IDENTIFIED WITH APPROVED SIGNS. TEMPORARY SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES. SIGNS SHALL BE OF AN APPROVED SIZE, WEATHER RESISTANT, AND BE MAINTAINED UNTIL REPLACED BY PERMANENT SIGNS.
- 18. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIANCE FROM THESE PLANS. ANY VARIATIONS FROM THESE PLANS SHALL BE PROPOSED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE DESIGN ENGINEER AND THE CITY FOR APPROVAL.

# 2. EXISTING UTILITIES AND FACILITIES

- ATTENTION. OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).
- 2. THÈ LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE CITY, DESIGN ENGINEER OR UTILITY COMPANIES DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF SUCH RECORDS. CONTRACTOR SHALL FIELD VERIFY SIZES AND LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING PROPERTY AND STREET MONUMENTS PRIOR TO CONSTRUCTION. ANY MONUMENTS DISTURBED DURING CONSTRUCTION OF THE PROJECT SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE. THE MONUMENTS SHALL BE REPLACED WITHIN A MAXIMUM OF 90 DAYS, AND THE COUNTY SURVEYOR SHALL BE NOTIFIED IN WRITING AS REQUIRED BY ORS 209.150.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF ALL BURIED AND OVERHEAD UTILITIES.
- 5. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WHERE NEW FACILITIES CROSS. ALL UTILITY CROSSINGS MARKED OR SHOWN ON THE PLANS SHALL BE POTHOLED USING HAND TOOLS OR OTHER NON-INVASIVE METHODS PRIOR TO EXCAVATING OR BORING. CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING POTENTIAL UTILITY CONFLICTS FAR ENOUGH AHEAD OF CONSTRUCTION TO MAKE NECESSARY GRADE MODIFICATIONS WITHOUT DELAYING THE WORK. IF GRADE MODIFICATION IS NECESSARY, CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER, AND THE DESIGN ENGINEER SHALL OBTAIN APPROVAL FROM THE CITY ENGINEER PRIOR TO CONSTRUCTION. ALL UTILITY CROSSINGS SHALL BE POTHOLED AS NECESSARY PRIOR TO EXCAVATING OR BORING TO ALLOW THE CONTRACTOR TO PREVENT GRADE OR ALIGNMENT CONFLICTS.
- 6. EXISTING FACILITIES SHALL BE MAINTAINED IN-PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO SUPPORT, MAINTAIN, OR OTHERWISE PROTECT EXISTING UTILITIES AND OTHER FACILITIES AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR TO LEAVE EXISTING FACILITIES IN AN EQUAL OR BETTER-THAN-ORIGINAL CONDITION AND TO THE SATISFACTION OF THE CITY ENGINEER.
- 7. UTILITIES, OR INTERFERING PORTIONS OF UTILITIES, THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL PLUG THE REMAINING EXPOSED ENDS OF ABANDONED UTILITIES.
- 8. CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS, MAILBOXES, FENCES, LANDSCAPING, ETC., AS REQUIRED TO AVOID DAMAGE DURING CONSTRUCTION AND REPLACE THEM TO EXISTING OR BETTER CONDITION.

- 9. ANY SEPTIC TANKS ENCOUNTERED DURING CONSTRUCTION SHALL BE PUMPED OUT AND, REMOVED OR ABANDONED IN PLACE IN ACCORDANCE WITH STATE OF OREGON DEQ AND COUNTY SANITARIAN REQUIREMENTS.
- 10. ANY WELLS ENCOUNTERED SHALL BE ABANDONED PER STATE OF OREGON WATER RESOURCES DEPARTMENT REQUIREMENTS.
- 11. ANY FUEL TANKS ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF PER STATE OF OREGON DEQ REQUIREMENTS. BACKFILL WITH COMPACTED GRANULAR MATERIAL.

#### . EARTHWORK

- 1. UNLESS OTHERWISE NOTED, ALL EARTHWORK SHALL CONFORM TO THE STANDARD CONSTRUCTION SPECIFICATIONS. IN ADDITION, THE CONTRACTOR SHALL REVIEW THE SOILS REPORT PREPARED BY (to be filled in as applicable), AND CONFORM TO ALL RECOMMENDATIONS LISTED IN THE REPORT.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION ACTIVITIES TO ENSURE THAT PUBLIC STREETS AND RIGHT-OF-WAYS ARE KEPT CLEAN OF MUD, DUST OR DEBRIS. DUST ABATEMENT SHALL BE MAINTAINED BY ADEQUATE WATERING OF THE SITE BY THE CONTRACTOR.
- 3. UNLESS OTHERWISE NOTED, ANY GRADING ON THE SITE SHALL BE COMPLETED SO AS TO MAINTAIN EXISTING DRAINAGE FROM ADJACENT PROPERTIES. ALL PROPOSED ELEVATIONS SHOWN SHALL BE CONSIDERED TO BE FINISH SURFACE ELEVATIONS, UNLESS NOTED OTHERWISE
- 4. CLEAR AND GRUB, WITHIN WORK LIMITS SHOWN, ALL SURFACE VEGETATION, TREES, STUMPS, BRUSH, ROOTS, ETC. DO NOT DAMAGE OR REMOVE TREES EXCEPT AS APPROVED AND AS SHOWN ON THE PLANS. PROTECT ALL ROOTS TWO INCHES IN DIAMETER OR LARGER, UNLESS OTHERWISED DIRECTED IN THE PLANS AND SPECIFICATIONS.
- 5. STRIP WORK LIMITS A MINIMUM OF FOUR INCHES (4") OR AS RECOMMEND BY THE SOILS REPORT, REMOVING ALL ORGANIC MATTER WHICH CANNOT BE COMPACTED INTO A STABLE MASS. ALL TREES, BRUSH AND DEBRIS ASSOCIATED WITH CLEARING, STRIPPING OR GRADING SHALL BE REMOVED AND DISPOSED OF OFF-SITE.
- 6. IMMEDIATELY FOLLOWING FINE GRADING OPERATIONS, COMPACT SUB GRADE TO 95 PERCENT OF THE MAXIMUM DRY DENSITY PER AASHTO T -180 TEST METHOD (MODIFIED PROCTOR). SUB GRADE MUST BE INSPECTED AND APPROVED BY THE CITY PRIOR TO PLACING EMBANKMENTS OR BASE ROCK.
- 7. FILLS WITHIN PUBLIC RIGHT-OF-WAYS AND EASEMENTS SHALL BE ENGINEERED.
  ADDITIONALLY, ANY FILLS OUTSIDE OF PUBLIC RIGHT-OF-WAYS WHICH ARE OVER 12-INCHES
  IN DEPTH SHALL BE ENGINEERED. ANY ENGINEERED FILLS OVER 12-INCHES IN DEPTH SHALL
  REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH CHAPTER 1704.7 OF THE OREGON
  STRUCTURAL SPECIALTY CODE.
- 8. PLACE FILL MATERIAL UNIFORMLY ACROSS SITE TO PROVIDE POSITIVE DRAINAGE AND PREVENT LOW AREAS DURING CONSTRUCTION. PROVIDE TEMPORARY DITCHES OR SWALES AS NECESSARY TO PREVENT SURFACE WATER FROM PONDING AND TO DIRECT SURFACE WATER AWAY FROM AREA OF FILL PLACEMENT.
- 9. DO NOT PLACE FILL MATERIAL IF FROZEN, IF SURFACE UPON WHICH FILL IS TO BE PLACED IS FROZEN, OR DURING PERIODS OF MEASUREABLE RAIN. CONTRACTOR SHALL CONTINUALLY MONITOR AND ALTER THE MOISTURE CONTENT OF THE SOIL EITHER BY ADDING MOISTURE OR BY DRYING THE SOIL BY AERATION SUCH THAT THE MOISTURE CONTENT OF THE SOIL DOES NOT VARY BY PLUS OR MINUS TWO PERCENT (±2%) OF OPTIMUM. EXCAVATED TRENCH NATIVE MATERIAL, WHICH IS OF SUITABLE MATERIAL, SHALL BE PLACED AND COMPACTED AS ENGINEERED FILL.
- 10. ENGINEERED FILLS SHALL BE CONSTRUCTED IN 6-INCH MAXIMUM LIFTS. EACH LIFT SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY PER AASHTO T -180 TEST METHOD (MODIFIED PROCTOR). ALL SUBGRADE IN PUBLIC RIGHT-OF-WAYS SHALL BE COMPACTED TO A FIRM AND UNYIELDING CONDITION.
- 11. UNLESS OTHERWISE SHOWN ON THE PLANS, NO CUT OR FILL SLOPES SHALL BE CONSTRUCTED STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL.
- 12. PLANTER AREAS SHALL BE BACKFILLED WITH APPROVED TOP SOIL MINIMUM 12-INCH IN DEPTH. STRIPPING MATERIALS SHALL NOT BE USED FOR PLANTER BACKFILL.
- 13. CONTRACTOR SHALL SEED ALL EXPOSED SLOPES AND DISTURBED AREAS WHICH ARE NOT SCHEDULED TO BE LANDSCAPED OR RECEIVE A HARD SURFACING.
- 14. GRADING SHOWN ON THE PLANS IS CRITICAL TO THE FUNCTIONING OF SITE DRAINAGE AND SHALL BE STRICTLY FOLLOWED.
- 15. AS APPLICABLE, CONTRACTOR SHALL COORDINATE AND ENSURE THAT STORMWATER FACILITY SIZE, ELEVATION, AND DETENTION VOLUMES ARE VERIFIED AND INSPECTED BY THE DESIGN ENGINEER AND APPROVED BY PUBLIC AGENCIES HAVING JURISDICTION PRIOR TO PAVING AND LANDSCAPING.

## 4. PAVING

- 1. UNLESS OTHERWISE NOTED, ALL ROCKING AND PAVING SHALL CONFORM TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
- 2. UNLESS OTHERWISE SHOWN ON THE PLANS, SMOOTH TRANSITIONS SHALL BE RUN BETWEEN ALL FINISH GRADE ELEVATIONS AND/OR FINISH CONTOUR LINES SHOWN. FINISH PAVEMENT GRADES AT TRANSITION TO EXISTING PAVEMENT SHALL MATCH EXISTING PAVEMENT GRADES TO PROVIDE A SMOOTH, FREE DRAINING SURFACE.
- 3. CRUSHED ROCK SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD CONSTRUCTION SPECIFICATIONS. COMPACT TO 95% OF THE MAXIMUM DRY DENSITY PER AASHTO T -180 TEST METHOD (MODIFIED PROCTOR). PRIOR TO PLACING AC PAVEMENT, WRITTEN COMPACTION TEST RESULTS FOR BASEROCK AND TRENCH BACKFILL MUST BE RECEIVED BY THE CITY, AND A PROOF-ROLL (WITNESSED BY THE CITY) MUST BE PERFORMED.
- 4. PAVING OF STREETS WILL NOT BE ALLOWED UNTIL AFTER COMPLETION OF ALL REQUIRED TESTING AND INSPECTION OF NEW WATER, SEWER AND STORM DRAIN LINES UNDER PAVED AREAS, AND REVIEW AND APPROVAL OF THE PRIVATE (FRANCHISE) UTILITY PLANS BY THE CITY ENGINEER OR HIS/HER DESIGNEE.
- ETH ENGINEER OR HIS/HER DESIGNEE.

  PAVEMENT SHALL CONFORM TO THE STANDARD CONSTRUCTION SPECIFICATIONS. ASPHALT CONCRETE PAVEMENT SHALL BE COMPACTED TO A MINIMUM OF 91 PERCENT OF MAXIMUM DENSITY (AT ALL LOCATIONS) AS DETERMINED BY THE RICE STANDARD METHOD (AASHTO
- 6. EXISTING OR CONSTRUCTED MANHOLES, CLEANOUTS, MONUMENTS, GAS VALVES, WATER VALVES AND SIMILAR STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH GRADE OF THE PAVEMENT (PRIOR TO PAVING OPERATIONS), SIDEWALK, LANDSCAPED AREA OR MEDIAN STRIP WHEREIN THEY LIE. STORM DRAIN INLET STRUCTURES SHALL BE ADJUSTED SO WATER FLOWS INTO THE STRUCTURE WITHOUT PONDING WATER.
- ASPHALT CONCRETE PAVEMENT WHICH DOES NOT MEET SPECIFIED COMPACTION REQUIREMENTS, AND WHICH ARE DEEMED BY THE CITY ENGINEER TO BE UNSUITABLE FOR USE, WILL BE REJECTED. ANY REJECTED MATERIAL SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

## 5. CURBS AND SIDEWALKS

- UNLESS OTHERWISE SHOWN OR INDICATED ON THE PLANS, 6-INCHES NOMINAL CURB
- EXPOSURE USED FOR DESIGN OF ALL PARKING LOT AND STREET GRADES.

  2. CONTRACTOR SHALL PROVIDE A MINIMUM 2-WEEP HOLES PER LOT IN CURB TO PROVIDE FOR LOT DRAINAGE. ONE WEEP HOLE SHALL BE LOCATED 5-FEET FROM THE PROPERTY LINE ON THE LOW POINT IN THE LOT FRONTAGE. WEEP HOLES SHALL ALSO BE PROVIDED AS REQUIRED FOR ADDITIONAL DRAINPIPES SHOWN ON THE PLANS. WEEPHOLES INSTALLED IN EXISTING CURBS SHALL BE CORE DRILLED.
- 3. CURBS AND GUTTERS SHALL BE STAMPED WITH AN 'SS', 'SD', OR 'W' AT THE POINT WHERE EACH SANITARY SEWER, STORM DRAIN AND WATER SERVICE LATERAL CROSSES THE CURBS AND GUTTERS, RESPECTIVELY. THE LOCATION OF GATE VALVES SHALL ALSO BE MARKED WITH A 'GV'. LETTERS SHALL BE A MINIMUM OF 2¬-INCHES HIGH.
- 4. CONTRACTOR SHALL CONSTRUCT HANDICAP ACCESS RAMPS AT ALL INTERSECTIONS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- SIDEWALKS AND DRIVEWAYS SHALL BE CONSTRUCTED TO THE FULL THICKNESS SHOWN.
   WHERE TRENCH EXCAVATION REQUIRES REMOVAL OF PCC CURBS AND/OR SIDEWALKS, THE CURBS AND/OR SIDEWALKS SHALL BE SAWCUT AND REMOVED AT A TOOLED JOINT UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE CITY. THE SAWCUT LINES SHOWN ON THE PLANS ARE SCHEMATIC AND NOT INTENDED TO SHOW THE EXACT ALIGNMENT OF SUCH CUTS.

#### 6. SITE UTILITIES

- CONTRACTOR SHALL COORDINATE AND PAY ALL COSTS ASSOCIATED WITH CONNECTING TO EXISTING WATER, SANITARY SEWER AND STORM SEWER FACILITIES. CONNECTIONS BETWEEN EXISTING INFRASTRUCTURE AND NEW WORK SHALL NOT BE MADE UNTIL NECESSARY INSPECTIONS AND TESTS HAVE BEEN COMPLETED ON THE NEW WORK IS FOUND TO CONFORM IN ALL RESPECTS TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.
- UNLESS OTHERWISE NOTED, MATERIALS AND WORKMANSHIP FOR WATER, SANITARY SEWER AND STORM SEWER SHALL CONFORM TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
- 3. BEDDING AND BACKFILL. ALL PIPES SHALL BE BEDDED WITH MINIMUM 6-INCHES OF 3/4-INCH MINUS CRUSHED ROCK BEDDING AND BACKFILLED WITH COMPACTED 3/4-INCH MINUS CRUSHED ROCK IN THE PIPE ZONE (CRUSHED ROCK SHALL EXTEND A MINIMUM OF 12-INCHES OVER THE TOP OF THE PIPE IN ALL CASES). CRUSHED ROCK TRENCH BACKFILL SHALL BE USED UNDER ALL HARD SURFACED AREAS, INCLUDING SIDEWALKS. CRUSHED ROCK BEDDING SHALL BE PLACED TO FORM A CONTINUOUS AND UNIFORM BEARING SUPPORT FOR THE PIPE AT EVERY POINT BETWEEN JOINTS. PIPE ZONE MATERIAL SHALL BE FIRST PLACED UP TO THE SPRING LINE OF THE PIPE AND MATERIAL UNIFORMLY COMPACTED BY HAND TO INSURE PROPER SUPPORT WITHIN THE PIPE HAUNCHES. GRANULAR TRENCH BACKFILL SHALL BE COMPACTED TO 92 PERCENT OF THE MAXIMUM DRY DENSITY PER AASHTO T -180 TEST METHOD (MODIFIED PROCTOR).
- 4. THE CONTRACTOR SHALL HAVE APPROPRIATE EQUIPMENT ON SITE TO PRODUCE A FIRM, SMOOTH, UNDISTURBED SUBGRADE AT THE TRENCH BOTTOM, TRUE TO GRADE. THE BOTTOM OF THE TRENCH EXCAVATION SHALL BE SHALL BE SMOOTH, FREE OF LOOSE MATERIALS OR TOOTH GROOVES FOR THE ENTIRE WIDTH OF THE TRENCH PRIOR TO PLACING THE GRANULAR BEDDING MATERIAL.
- 5. CONTRACTOR SHALL ARRANGE FOR AND PAY ALL COSTS TO ABANDON EXISTING SEWER AND WATER SERVICES NOT SCHEDULED TO REMAIN IN SERVICE.
- 6. ALL SITE UTILITIES ABANDONED IN PLACE SHALL HAVE ALL OPENINGS CLOSED WITH CONCRETE PLUGS WITH A MINIMUM LENGTH OF 12-INCHES OR 2 TIMES THE DIAMETER OF THE ABANDONED PIPE, WHICHEVER IS LARGER.
- MINIMUM ALLOWABLE CLEARANCE BETWEEN PIPES AT CROSSINGS SHALL BE 6-INCHES.
   THE END OF ALL UTILITY STUBS SHALL BE MARKED WITH A 2X4, EXTENDING 2-FEET MINIMUM ABOVE FINISH GRADE, PAINTED AND WIRED TO PIPE STUB (PAINTED GREEN FOR SANITARY SEWER, WHITE FOR STORM). TYPE OF UTILITY (IE. SEWER, STORM, ETC) AND DEPTH BELOW GRADE TO TOP OF PIPE SHALL BE CLEARLY AND PERMANENTLY LABELED ON THE MARKER POST.
- 9. CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT AND FACILITIES REQUIRED FOR TESTING ALL UTILITY PIPING IN ACCORDANCE WITH THE STANDARD CONSTRUCTION
- 10. TRACER WIRE. ALL NON-METALLIC WATER, SANITARY AND STORM SEWER PIPING SHALL HAVE AN ELECTRICALLY CONDUCTIVE INSULATED 12 GAUGE COPPER TRACER WIRE THE FULL LENGTH OF THE INSTALLED PIPE USING BLUE WIRE FOR WATER AND GREEN FOR STORM AND SANITARY PIPING. TRACER WIRE SHALL BE EXTENDED UP INTO ALL VALVE BOXES, AND MANHOLES AND CATCH BASINS. TRACER WIRE PENETRATIONS INTO MANHOLES SHALL BE WITHIN 18-INCHES OF THE RIM ELEVATION AND ADJACENT TO MANHOLE STEPS. THE TRACER WIRE SHALL BE TIED TO THE TOP MANHOLE STEP OR OTHERWISE SUPPORTED TO ALLOW RETRIEVAL FROM THE OUTSIDE OF THE MANHOLE.
- 11. WARNING TAPE. UNDERGROUND DETECTABLE (FOR NON-METALIC PIPING) OR NON-DETECTABLE (FOR METALIC PIPING) ACID AND ALKALI RESISTANT SAFETY WARNING TAPE SHALL BE PROVIDED 12-INCHES MIN TO 18-INCHES MAX FROM FINISH GRADE ALONG THE FULL LENGTH OF ALL UTILITY SERVICE LATERALS AND ALONG ALL UTILITY MAINLINES. UNDERGROUND WARNING TAPE SHALL BE CONTINUOUS THE ENTIRE LENGTH OF SERVICE LATERALS INSTALLED FROM THE MAINLINE TO THE BACK OF THE PUE. MARKING TAPE COLOR SHALL BE IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.
- 12. NO TRENCHES IN ROADS OR DRIVEWAYS SHALL BE LEFT IN AN OPEN CONDITION OVERNIGHT. ALL SUCH TRENCHES SHALL BE BACKFILLED OR STEEL PLATED AS APPROVED BY THE CITY ENGINEER, BEFORE THE END OF EACH WORK DAY AND NORMAL TRAFFIC FLOWS RESTORED.

## 7. WATER

- 1. OPERATION OF EXISTING VALVES, INCLUDING FIRE HYDRANTS, SHALL BE PERFORMED ONLY BY AUTHORIZED CITY STAFF. CONTRACTOR SHALL COORDINATE WITH THE CITY ACCORDINGLY.
- 2. ALL WATER MAINS SHALL BE MINIMUM CLASS 52 DUCTILE IRON. ALL FITTINGS 4-INCHES THROUGH 24-INCHES IN DIAMETER SHALL BE DUCTILE IRON FITTINGS IN CONFORMANCE WITH AWWA C-153 OR AWWA C-110. THE MINIMUM WORKING PRESSURE FOR ALL MJ CAST IRON OR DUCTILE IRON FITTINGS 4-INCHES THROUGH 24-INCH IN DIAMETER SHALL BE 350 PSI FOR MJ FITTINGS AND 250 PSI FOR FLANGED FITTINGS.
- 3. ALL WATER MAINS TO BE INSTALLED WITH A MINIMUM 36-INCH COVER TO FINISH GRADE UNLESS OTHERWISE NOTED OR DIRECTED. SERVICE LINES TO BE INSTALLED WITH A MINIMUM 30-INCHES COVER WITHIN THE RIGHT-OF-WAY. DEEPER DEPTHS MAY BE REQUIRED AS SHOWN ON THE PLANS OR TO AVOID OBSTRUCTIONS.
- 4. THRUST RESTRAINT SHALL BE PROVIDED ON ALL BENDS, TEES AND OTHER DIRECTION CHANGES PER THE STANDAD DRAWINGS UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE PLANS. ALL VALVES SHALL BE FLANGE CONNECTED TO ADJACENT TEES OR CROSSES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 5. WATER SERVICE PIPE ON THE PUBLIC SIDE OF THE METER SHALL BE TYPE K SOFT COPPER TUBING CONFORMING TO ASTM B-88. WATER SERVICE PIPE ON THE PRIVATE SIDE OF THE METER SHALL BE AS SPECIFIED PER THE OREGON PLUMBING SPECIALTY CODE.
- 6. FIRE HYDRANT ASSEMBLIES SHALL BE KENNEDY K-81D GUARDIAN, WATEROUS 5-1/4 PACER, OR APPROVED EQUAL. FIRE HYDRANTS SHALL BE LOCATED TO ALLOW A MINIMUM OF 5-FEET CLEAR SPACE SURROUNDING ALL PORTIONS OF THE HYDRANT. THERE SHALL BE NO OBSTRUCTIONS DIRECTLY IN LINE WITH ANY OF THE PORTS OF THE HYDRANT FOR A DISTANCE OF 6-FEET.
- 7. DOMESTIC AND FIRE BACKFLOW PREVENTION DEVICES AND VAULTS SHALL CONFORM TO REQUIREMENTS OF PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.
- 8. ALL NEW WATER LINES SHALL BE THOROUGHLY FLUSHED, PRESSURE TESTED, CHLORINATED AND BACTERIOLOGICALLY TESTED. POTABLE WATER TEST SHALL BE APPROVED BY THE CITY PRIOR TO ANY METERED SERVICE HOOKUP. CONTRACTOR SHALL INSTALL TEMPORARY PLUG AND BLOWOFF AS REQUIRED AT THE END OF WATERLINE FOR FLUSHING, TESTING AND CHLORINATION.
- 9. THE WORK SHALL BE PERFORMED IN A MANNER DESIGNATED TO MAINTAIN WATER SERVICE TO BUILDINGS SUPPLIED FROM THE EXISTING WATERLINES. IN NO CASE SHALL SERVICE TO ANY MAIN LINE OR BUILDING BE INTERRUPTED FORM MORE THAN FOUR (4) HOURS IN ANYONE DAY. CONTRACTOR SHALL NOTIFY THE CITY AND ALL AFFECTED RESIDENTS AND BUSINESSES A MINIMUM OF FORTY-EIGHT (48) BUSINESS HOURS (2 WORKING DAYS) PRIOR TO ANY INTERRUPTION OF SERVICE.
- 10. SANITARY SEWER AND WATERLINE CROSSINGS. WHERE SANITARY SEWER LINES CROSS ABOVE OR WITHIN 18-INCHES VERTICAL SEPARATION BELOW A WATERLINE, SEWER MAINS AND/OR LATERALS SHALL BE REPLACED WITH AWWA C-900 PVC PIPE (DR 18) AT THE CROSSING. CENTER ONE FULL LENGTH (20-FOOT) OF AWWA C-900 PVC PIPE AT POINT OF CROSSING. CONNECT TO EXISTING SEWER LINES WITH APPROVED RUBBER COUPLINGS. SANITARY SEWER CROSSINGS SHALL COMPLY WITH DHS REGULATIONS.

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