CITY OF BIG BEAR LAKE
ENGINEERING DIVISION

GENERAL PERMIT CONDITIONS AND SPECIFICATIONS FOR STREET CUTS AND TRENCH RESURFACING

Effective August 12, 2002
Revised October 13, 2013

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City of Big Bear Lake
Standard Trench Specifications
Adopted August 12, 2002

1. GENERAL

Authority to Enforce – The authority to enforce this policy shall be granted to the City Engineer of the City of Big Bear Lake, or his/her designee. The City Engineer shall have authority to deviate from this policy and to specify alternate means and methods consistent with sound engineering principles in enforcing the objectives of this policy.

Permittee – For purposes of this policy, Permittee shall mean the applicant and/or the owner of the facilities, or any and all successors in interest to the facilities, for which the permit was issued under the provisions of this policy.

1.3 Standards and Specifications – All work within the public right of way shall be performed in accordance with the current "Greenbook" Standard Specifications for Public Works Construction 2012 edition and these Conditions and Specifications. Any deviation from these standards shall be approved in writing by the City Engineer.

1.4 Changes or Additions to Permit – The City Engineer reserves the right to make any changes or additions to a permit after issuance if such changes or additions are determined to be necessary for the protection of the roads or for the health and safety of the public.

1.5 Relocation – If any part of an installation interferes with the present use of roads by the general public or is in conflict with future or current City improvement projects, that part of the installation shall be removed or relocated as directed by the City Engineer at the expense of the Permittee or his successor in interest.

1.6 Utility Construction – Permits for utility trenching, including utility service trenching, within City right-of-way, shall be issued to the respective utility purveyor or a California licensed contractor provided that the application meets all City requirements. The Permittee shall warranty the trench repair for one year from the date of the City's acceptance of the work. Following the Permittee warranty period, the respective utility purveyor shall thereafter be responsible for the trench repair and maintenance.

1.7 Licensed Contractor – All excavation, repair and restoration in City road right-of-way shall be performed by a contractor with the appropriate license issued by the State of California Contractors License Board or by utility purveyor's regular employees.

1.8 Permit Possession – Other than emergency repairs, there shall be no work performed in City road right-of-way until a street cut permit is issued. A copy of this permit, a set of approved plans and permits required by any other legally constituted authority shall be on site at all times construction is in progress. Permits that require excavation shall be issued only after a Dig Alert/USA inquiry identification number is obtained. All permitted work shall cease between October 31 of the current year

and April 15 of the following year unless approved by the City Engineer. Approval to work shall be dependent on weather conditions.

1.9 **Sanitary Facilities** – The Permittee may be required to provide and maintain enclosed toilets for the use of employees at all times while work is in progress.

1.10 **Permittee Responsibility** – In addition to all conditions herein, the Permittee is responsible for safety and construction requirements within the limits of the project. The Permittee or his employees shall abide by all the regulations of any legally constituted authority.

1.11 **N.P.D.E.S. –** The Permittee is responsible for instituting Best Management Practices (BMP) to comply with National Pollutant Discharge Elimination System (N.P.D.E.S.) requirements.

1.12 **S.W.P.P.P. –** The Permittee is responsible for instituting Best Management Practices (BMP) to comply with Storm Water Pollution Prevention Plan (S.W.P.P.P.) requirements.

1.13 **Hold Harmless** – The Permittee shall preserve and save harmless the City and each officer and employee thereof, from any liability or responsibility for any accident, loss of damage to persons or property happening or occurring as a proximate result of Permittee's negligence or the negligence of Permittees' agents, servants, employees or contractors in the design or performance of any work undertaken under any permit granted to Permittee pursuant to the application.

1.14 **Notification – Permittee shall notify the assigned City Inspector at 909-866-5831 a minimum of 24 hours (one full working day minimum), excluding weekends and holidays, prior to starting a project and prior to each subsequent phase of construction. In addition, the Permittee shall notify Dig Alert/USA at 800-227-2600 a minimum of 72 hours prior to any excavation. In emergencies, immediately contact the appropriate utility provider, City Public Works at 909 866-7521, and the assigned City Inspector.**

1.15 **Inspection** – **All construction performed in relation to a street cut permit shall be inspected by the City prior to and during installation except as otherwise determined by the City Engineer.** Construction performed without inspection may be subject to removal and replacement. The entire cost of removal and replacement shall be borne by the Permittee, regardless of whether the installation removed was found to be defective.

1.16 **Failure To Comply** – Should a Permittee fail to comply with the provisions of the street cut permit or the related requirements of any legally constituted authority, the City Engineer may order the Permittee to stop work, wholly or in part, until the discrepancies have been resolved to the satisfaction of the City Engineer. Upon satisfactory completion of corrections, written approval from the City Engineer shall be required before work resumes. Failure to comply may result in revocation of permits. The City may perform the work required to correct deficiencies or arrange for the work to be done, and the entire cost of the required work shall be borne by the Permittee.

1.17 **Performing Work Without Permits** - Should anyone fail to obtain all necessary permits of any legally constituted authority, the City Engineer will order the Permittee to stop work until the discrepancies have been resolved to the satisfaction of the City Engineer. **Permit and inspection fees shall be doubled for failing to obtain all necessary permits in advance of construction**. Repeat offender(s) may have their City Business License revoked and/or reported to the California State License Board (CLSB).

1.18 **Encroachment Permit** – All work performed in the Public Right-of-Way (i.e. not on private property) shall require an Encroachment Permit. The Encroachment Permit shall be obtained in advance of any work in the Public Right-of-Way. Application for the Encroachment Permit can be obtained for the Engineering Division counter at the City of Big Bear Lake City Hall located at 39707 Big Bear Blvd.

1.19 **Encroachment Permit Conditions** –At a minimum, the following conditions shall apply to every Encroachment Permit and additional conditions may be added at the City Engineer's discretion:

- No bins, dumpsters, portable toilets, or other obstruction within 25 feet of the curb return to maintain safe traffic sightlines.
- The Permittee shall notify Dig Alert/USA at 800-227-2600 a minimum of 72 hours prior to any excavation.
- The Permittee shall notify the assigned City Inspector at 909-866-5831 a minimum of 24 hours (one full working day minimum), excluding weekends and holidays, prior to starting a project and prior to each subsequent phase of construction.
- All work in the Public Right-of-Way must be done by a qualified licensed contractor.
- Before issuing the encroachment permit, the qualified licensed contractor shall provide the City with evidence of General Liability Insurance in the amount of at least $1 million listing the City of Big Bear Lake as additionally insured as specified in Section 9.

1.20 **Temporary Use Permit –** Permittees may require a Temporary Use Permit (T.U.P.) for storage of equipment and material. Permittee is responsible for contacting the Planning Division to verify if T.U.P. is required.

2. PUBLIC CONVENIENCE AND SAFETY

2.1 **Traffic and Access** – The Permittee's operation shall cause no unnecessary inconvenience to the public. The access rights of the public shall be maintained at all times and unless otherwise authorized, traffic shall be permitted to pass through the work area at all times. Safe and adequate pedestrian and vehicular access shall be provided and maintained to fire hydrants, residences, commercial and industrial establishments, churches, schools, parking lots, service stations, lodging facilities, fire and police stations, hospitals, and establishments of similar nature. Access to these facilities shall be continuous and unobstructed unless otherwise approved by the City.

2.2 **Traffic Control** – Traffic control shall conform to the current WATCH Manual of Traffic Controls. The handbooks published by American Traffic Safety Services Association Guide and the Work Area Traffic Control Handbook or other traffic control manuals may be used with approval of the City.

2.3 **Working Hours** – Except for emergency repairs, no work shall be performed within City road right-of-way on weekends, City holidays, before 7 AM or after 4:30 PM unless authorized by the City Engineer.

2.4 **Dewater Operations** – Release of, or the directing of water onto City roads shall be authorized only by the City Engineer and shall include traffic control per Section 2.2, clean up per Section 4.1 and erosion control. If erosion occurs, grading shall be as required in Section 5.4. Discharges shall comply with the National Pollutant Discharge Elimination System and with Federal law, State law and local ordinance.

2.5 **Closing Roads** – No road shall be closed without authorization from the City Engineer except in the case of an emergency under the direction of an authorized agency. An authorized road closure will allow the detour of *through* traffic only. The Permittee shall provide a smooth dust controlled route that allows unimpeded access for emergency vehicles and residents at all times.

To apply for a road closure authorization, submit the following to the Engineering Division, PO Box 10000, Big Bear Lake, CA 92315.

- Written request for the closure with the time schedule included.
- Detour route, sign type designation and sign locations.
- A minimum of five (5) working days is required to process the application.

3. PRESERVATION OF PROPERTY

3.1 **Protection of Property** – The Permittee shall be responsible for the protection of public and private property adjacent to the work and shall exercise due caution to avoid damage to such property.

The Permittee shall repair or replace all existing improvements or landscaping damaged within the right-of-way that are not designated for removal on the approved plans. Such repairs and replacements shall match the original in finish and dimension. Trees, lawns and shrubbery that are not designated for removal on the plans shall be protected from damage or injury. If damaged or removed because of the Permittee operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible as approved by Engineering Division personnel. The Permittee shall give seven (7) days notice to occupants or owners of adjacent property to allow them to salvage or relocate plants, trees, fences, sprinklers and other improvements within the right-of-way that are designated for removal on the plans and would be destroyed because of the work. A copy of such notice to occupants of owners of adjacent property, or evidence of posting the work site shall be furnished to the City Engineer prior to issuance of a permit.

3.2 **City Facilities** – Prior to construction, the Permittee shall assess the condition of City facilities within project limits and provide a written report to the City Engineer listing all damaged, defaced or missing pavement, sidewalk, curb, gutter, traffic signs, pavement markings or hazardous conditions that may exist before work is started. Prior to final acceptance of the project, all City facilities shall be in the same or better condition as determined by the City Engineer.

3.3 **Traffic Signals** – Traffic signal detector loops, wiring or appurtenant facilities damaged by the Permittee's operation shall be reported immediately to Caltrans Maintenance Department 909-383-2594. Notification shall also be given to the City Engineer. Any damage shall be repaired immediately as directed by Caltrans and at no expense to the City.

3.4 **Survey Monuments** – The Permittee shall locate, protect or tie-out all survey monuments that may be disturbed or destroyed. Survey monuments shall be located, referenced and a Corner Record filed with the County Surveyor prior to the start of construction. Following completion of the work, the monuments shall be reset in the surface of the new construction, a suitable monument box placed thereon, or permanent witness monuments set as determined by the City Engineer and a Corner Record filed with the County Surveyor prior to final project notice of completion issued by the Engineering Division. All work shall be performed under the direction of a licensed Land Surveyor or registered Civil Engineer at no expense to the City.

4. PROJECT SITE MAINTENANCE

Surplus dirt, debris, rocks or building materials shall be contained during permit work and the site broomed daily to reduce possibility of being carried by runoff into a storm drain, stream or natural drainage course or lake. At the completion of the permit work, the previous drainage patterns must be restored. Material shall not be placed in such a manner that might result in the blockage of any drainage structure at either the inlet or outlet.

4.1 **Clean up and Dust Control** – Throughout all phases of construction, including suspension of work, the Permittee shall keep the work site clean and free from rubbish and debris. The Permittee shall also abate dust nuisance by cleaning, sweeping and sprinkling with water or other means as necessary. When power sweeping is required, a self-contained sweeper that picks up and contains the material shall be used. The use of water resulting in mud on roads or drainage facilities will not be allowed as a substitute for sweeping or other cleaning methods. All soil and construction material shall be removed prior to that portion of the road being made available to traffic.

4.2 **Haul Routes** – When required by the City Engineer, haul route approval shall be obtained before beginning work. Approval will be issued within five (5) working days after filing of complete plans, fees and application to the Engineering Division. Plans for haul routes shall specify the deposition site, and evidence shall be provided of all approvals for the deposition site. Care shall be exercised to prevent spillage on, or damage to City roads. Any such spillage or damage shall be removed or repaired immediately. If dirt deposited in the public right of way is not cleaned immediately, the City Engineer may authorize sweeping, the cost of which shall be

borne by the Permittee. Dust control and traffic control shall be provided for all hauling operations.

4.3 Storage in City Roads – There shall be no equipment or materials stored or stockpiled in road right-of-way. Equipment and materials shall be removed from road right-of-way when not in use and at the end of each working day, except as approved by the City Engineer.

4.4 Snow Removal – The City Public Works Division will remove snow on all City maintained roads that are safe for the snow removal operation. If conditions are such as to endanger personnel or equipment due to Permittee operation (sunken trenches, irregular paving, or other hazards) the City will cease snow removal operations. The Permittee shall then be responsible for removal of snow and shall maintain any such portions of the roadway, including sanding operations, for a minimum width of 20-feet or as directed by the City Engineer.

4.5 Emergency Response for Unsafe Jobsite Conditions – The City, at its sole discretion, may elect to perform emergency work at the jobsite if it is judged as necessary for the protection of the roads or for the health and safety of the public. Before work is started, the Permittee shall furnish names and telephone numbers of persons on-call if the City requires emergency work at the jobsite. The cost of all such emergency work at the jobsite shall be borne by the Permittee.

4.6 Maintenance of Trenches – Permittee shall perform continuous maintenance of all trenches, including periods of suspension of work, during the course of construction and shall maintain the trench for the life of the installation.

5. MATERIALS AND EQUIPMENT

5.1 Pavement Traffic Markings and Striping – Pavement traffic markings and striping shall be painted with two (2) coats on the roadway surface with all-weather, oil-based paint, which conforms to Section 210 of the Greenbook 2006 edition. All damaged or removed markings shall be replaced with this material unless otherwise approved by the City Engineer. Visual uniformity, as determined by the City Engineer, may require that adjacent markings and all markings within an intersection be repainted by the Permittee at no cost to the City.

5.2 Asphalt Concrete – Paving asphalt shall be PG 64-10 1/2-inch Type B maximum, medium, unless otherwise approved by the City Engineer. Asphalt dike shall be PG 70-10 paving asphalt with Type B 3/8-inch maximum, medium grading.

5.3 Base Material – Base shall be Class II Aggregate Base or as approved by the City Engineer. Base material depth shall be a minimum of 6 inches.

5.4 Grading Equipment – Grading of soil roads or soil shoulders may be accomplished by any means that will provide a smooth, compacted and uniform surface that varies less than 0.1-foot in 10-feet for line or grade up to 300-feet. Projects greater than 300-feet in length will require that grading be performed with approved motor grader equipment.

5.5 **Track Equipment** – Track equipment and outriggers used on paved surfaces shall be equipped with street pads and be operated so as not to mar the surface or cause damage to any City facility. If pavement is marred, it shall be resurfaced over the entire width as required in Section 8, Trench Construction and Repair. If City facilities are damaged, they shall be replaced or repaired as specified in Section 3, Preservation of Property.

5.6 **Paving Equipment** – Paving 6-feet wide or wider in a driving lane shall be accomplished by use of a paving machine approved by the City Engineer. Shoulder paving and miscellaneous paving shall be installed as approved by the Inspector.

6. TRENCHING

6.1 **Cal OSHA** – All excavations shall conform to the requirements of the State of California Division of Occupational Safety and Health. The applicant for a street-cut permit shall possess a permit to excavate from the Division of Industrial Safety, Department of Industrial Relations, State of California, and shall submit a copy of said permit with the street cut permit application.

6.2 **New Roads** –Trenching shall not be permitted in roads that have been paved within 5 years from the permit application date unless otherwise authorized by the City Engineer. If authorized, the trenching will be subject to additional requirements as specified by the City Engineer. For lateral trenching, jacking may be required as determined by the City Engineer.

6.3 **Depth of Installation** – Underground installations shall have a minimum cover below finished grade as indicated on San Bernardino County Standard Plan No. 311.

6.4 **Separation of Utilities** – Adequate separation shall be maintained between new or replaced underground main lines from existing sewer or water lines. The alignment of new main installations or replacement of existing mains shall be submitted to and approved by the City Engineer. Unless specifically authorized by the City Engineer: 1) The minimum separation for new or replaced main lines running parallel shall be 3 feet from outside of pipe to outside of pipe, 2) The minimum separation for new or replaced main line crossings shall be 1 foot clear from outside of pipe to outside of pipe.

6.5 **Pavement Removal** – Paving shall be cut for removal and excavated in a manner that does not disturb the adjacent pavement. Paving shall be sawcut or cold planed for permanent repair as specified in Section 8. Remnant strips of paving less than 3 feet wide shall be removed and included in the replacement paving. Replacement paving along the edge of paving that does not have curb and gutter, AC dike or AC berm shall be a minimum of 2 feet wide.

6.6 **Open Trench** – The maximum length of open trench (excavation or backfill not resurfaced) allowed during construction shall be the distance of construction that can be reasonably installed in a single day. Contractor's personnel shall attend any open trench at all times. Where pavement has been removed, a minimum of 2 inches of temporary paving shall be placed before that area is made available to traffic. Before leaving the project and at the end of each day, all areas of pavement removal,

including sidewalk, drainage courses and driveway approaches, shall be backfilled, compacted and surfaced with temporary asphalt. Upon approval of the City Engineer, appropriate areas of the trench may be protected by plate bridging or protective fencing.

6.7 Trench Bridging – Plate bridging in the traveled way shall be as shown in the Work Area Traffic Control Handbook and the Plate Bridging Standard drawing herein.

6.8 Protective Fencing – When protective fencing is used to secure an area, it shall be constructed of 6 foot high, pipe framed chain link panels or equal material, secured into position and placed in a manner that there are no gaps larger than 3 inches. Fencing shall be placed a minimum of 4 feet from the nearest driving lane and shall be protected by appropriate signing and barriers per Section 2.2, Traffic Control.

6.9 Trench Backfill – Unless otherwise specified, the material obtained from the project excavations will be acceptable for use as fill or backfill, provided that all organic material and other material determined by the City Engineer to be unsuitable for fill is removed. Rocks, plain concrete rubble and pavement grindings obtained from the project will be permitted in the fill subject to the following limitations:

- In trenches up to 3 feet wide, the maximum dimension of any piece used shall be 6 inches; in trenches more than 3 feet wide, 1 foot is the maximum dimension.
- Pieces larger than 4 inches shall not be placed within 1 foot of any structure.
- Pieces larger than 3 inches shall not be placed within 1 foot of the sub-grade for paving.
- Rocks or rubble included in the fill shall be mixed with approved material to eliminate voids.
- The use of ¾" minus rock as backfill above the pipe blanket shall not be allowed due to the "conduit" effect and the tendency for water to collect in the trench.

6.10 Narrow Trench – Unless otherwise authorized, trenches in paved areas which are one (1) foot or less in width shall be backfilled to pavement sub-grade with two sack slurry.

6.11 Boring (Jacking) Pits and Potholes – When authorized by the City Engineer, boring (jacking) pits and potholes in paved areas may be backfilled to pavement sub-grade with two-sack slurry above the pipe blanket as a means of insuring proper sub-grade compaction.

6.12 Inclement Weather – Other than emergency repairs or as directed by the City Engineer, there shall be no excavation within the traveled way of City roads during periods of inclement weather.

6.13 Manhole Construction – Manholes shall remain below the grading plane until final paving has been completed and then set flush with the surface. In areas that require snow removal, the manhole frame shall be permanently set not less than 0.5 inches

nor more than 0.75 inches below pavement surface. Backfill and testing shall be per Section 7, and shall be independent of the main line trench tests. In graded earth shoulders or earth flowline areas, manholes are to be protected in place.

7. COMPACTION

7.1 Relative Compaction (RC) – RC of 95% minimum shall be required for asphalt pavement, paving base material and that portion of backfill that is within 6 inches of the paving base material. RC of 90% minimum shall be required for all other fill or backfill. All compaction shall be in accordance with California Test No. 216 or No. 231 (ASTM D-1556 or D-1557-70). Use of an alternate compaction test method (e.g. Dynamic Cone Penetrometer) must be approved in advance and will be approved on a case-by-case basis.

7.2 Compaction Testing Frequency And Location -- Trench backfill testing shall be at 250-foot maximum intervals. The City Engineer shall determine test locations. One test shall be performed for each 4 feet of depth or fraction thereof. Pavement sub-grade and pavement base material shall be tested at 500-foot intervals. Tests for backfill shall be taken at mid-depth of each 4 feet of backfill starting at the top of the installation. Twenty percent (20%) of laterals and one hundred (100%) of manholes shall be tested independently of the main line. Failure of a compaction test will result in the entire area represented by that test being uniformly reworked and retested at a random location.

7.3 Test Reports – Tests shall be certified by a registered California civil or geotechnical engineer or testing laboratory in accordance with the State of California test requirements. Test reports shall be listed individually for each trench or for each type and phase of construction. The test report shall include an accurate description of the test location. **Compaction reports shall be submitted to the City's inspector and approved prior to permanent paving.** If an alternate compaction method is approved per Section 7.1, alternate test reports specified at time of permit issuance shall be submitted.

7.4 Mechanical Compaction – Backfill shall be placed in horizontal layers of thickness compatible to the material being placed and the type of equipment being used as specified by the Permittee's soils engineer. Each layer shall be evenly spread then tamped or rolled until the specified relative compaction is attained.

7.5 Water Densification – Densifying by ponding and jetting will not be allowed within 4 feet of finish grade unless confined to the pipe zone and approved by the City's inspector. Water densification may be allowed when, as determined by the City Engineer, the base and backfill materials have a sand equivalent of 30 or greater (California Test No. 217) and are of such character that they will be self-draining when compacted and the foundation material will not soften, or otherwise be damaged by the applied water. Authorization to use water densification may be obtained by submitting a request and test reports representing the foundation soils and backfill material, at a maximum of 1000-foot intervals, to the City's inspector no later than five (5) working days prior to starting work. An approved type of compaction is required for the pipe zone and bedding. The Permittee's soils

engineer shall specify methods of compaction based on the characteristics of native material.

8. TRENCH RESURFACING

8.1 **Temporary AC Pavement** – Temporary asphalt compacted to 2 inches thick shall be placed and maintained in a smooth and compacted condition at all locations where paving has been removed before traffic is allowed to pass over such areas of pavement removal, in accordance with Section 6.6. Temporary asphalt shall be removed for permanent repair.

8.2 **Pavement Repair-General** – Damaged paving adjacent to the trench edges shall be sawcut and removed in rectangular sections. Remnant strips of paving shall be removed and that area included in the paving repair per Section 6.5. Asphalt paving shall be placed in a minimum of two lifts and be in accordance with Caltrans Standards Section 39 and be a minimum of 95% RC. The repaired section shall be not less than 1 inch thicker than the existing paving but not less than 4 inches thick, except as approved by the City Engineer. Permanent paving shall be placed as soon as possible after compaction trench tests have been approved by the City and within thirty (30) days of completion of the subsurface installation. Deviation from this schedule shall receive prior approval by the City Engineer. In the event that the City Engineer determines that the finish paving should not be completed per the schedule above due to weather or other factors, the finish paving may be deferred up to one year from the date of the permit. Prior to paving, areas to be joined with asphalt paving shall be cleaned of all soil and foreign material and tacked (100% coverage) with asphaltic emulsion or paint binder.

8.3 **Permanent Pavement Repair** – Base paving shall be in compacted lifts a maximum of 3 inches thick. The use of ¾- inch maximum coarse (MC) PG 64-10 may be required at the discretion of the City Engineer. Finish course shall be a minimum of 1 inch and a maximum of 2 inches thick of ½- inch maximum medium (MM) PG 64-10 flush with the existing paving. Repair of trench sections over 6 feet in width shall be done utilizing a self-propelled vibrating screed paving machine (Barber-Greene or equivalent) and may be subject to additional requirements.

8.4 **Cold Plane for T-Cut Trench (if required by the City Engineer) -** Trench edges shall be sawcut with straight lines and cold planed 1 ½ inches to a minimum of 1 foot beyond sawcut edge and shall be parallel and at right angles to the centerline of the road (see "Pipe Backfill in Trenches" Standard Plan revised 6/29/2000).

8.5 **Overlay Paving** – When a trench is 300 feet or longer, pavement restoration shall be required in accordance with Table 8.5.1 below. The specific requirement will be determined before the issuance of an encroachment permit for the proposed work. Should work start prior to the issuance of an encroachment permit or without prior approval, the Permittee shall not be relieved from the responsibility of restoring the street. In lieu of restoring the street, the City may require that the Permittee contribute cash for the cost of street restoration for the length of the trench and the width as specified hereinafter. When trenching occurs in a road whose existing pavement/structural section has a PCI (Pavement Condition Index) of less than 40,

the City Engineer shall require restoration of the pavement within the trench in accordance with Section 8.2 hereof.

In January of each year, the City Engineer shall update unit costs for street overlay by utilizing cost data obtained from appropriate capital projects constructed within the City of Big Bear Lake during the previous twelve months or from other sources as necessary to obtain representative costs for the quantities of work to be accomplished. The cash contribution from the Permittee will be used to defray the City's cost of restoring the entire street width. Any damage to the roadway beyond the trench excavation as a result of negligence by the Permittee or his/her contractor shall be repaired to meet or exceed prior street conditions as determined by the City Engineer. Pavement overlay, when required, shall be a minimum of 2 inches thick PG 64-10 1/2-inch MM placed with a paving machine per Section 5.6 and shall extend beyond pavement removal a minimum of 1 foot laterally and 5 feet longitudinally. The overlay shall cover the half-street width, which shall include driving lanes and full shoulder width. Roads that have a superelevation or tilt cross section may require full road width overlay in the area of the superelevation or tilt section.

Table 8.5.1

Pavement Repair Options

Street Category	Type One	Type Two	Type Three	Type Four	Type Five
A	Grind and 1 ½" overlay with pavement fabric.	Overlay 2" with no pavement fabric	Crack seal and 1 ½" overlay with pavement fabric.	Crack seal and chip seal.	
B			Crack seal and 1 ½" overlay with pavement fabric.	Crack seal and chip seal.	Crack seal and slurry seal
C			Crack seal and 1 ½" overlay with pavement fabric.	Crack seal and chip seal.	Crack seal and slurry seal
D					Crack seal

A-Street newly constructed or reconstructed within 5 years of trench cut application date or PCI of 80 or greater.
B-Street overlayed within 5 years of trench cut application date or PCI of 80 or greater.
C-Street in good condition, PCI 41 or greater; no reconstruction or overlay within past 5 years of trench cut application date.
D-Street in poor condition; PCI 40 or less.

8.6 Excessive Pavement Removal – Removal of six or more separate areas of pavement or the removal of 15% of the total area of a lane and/or shoulder by a Permittee within a continuous 300-foot length of street, shall require permanent repair per Section 8.5.

8.7 **Pavement Surfacing** – Where there are existing surface coats on the existing paving, open graded paving, chip seal or any type of surfacing that has been removed, such surfacing and paving shall be replaced in-kind.

8.8 **Driveway Approaches** – Driveway approaches constructed of asphalt concrete shall be repaired and shall also be overlaid 1-inch thick full width to the property line or slurry sealed at the discretion of the City Engineer. See City Standard Plans no. 216.

8.9 **Portland Cement Concrete** – Potholes or trenches in PCC shall be repaired by saw cutting or grinding and removed in full panels at the score lines or as directed by the City Engineer. A minimum section of five feet by five feet shall be removed and replaced in the absence of panels.

8.10 **Trench Failure and Repair** – When the City Engineer notifies Permittee of a failure of the trench (settlement, excessive cracking or alligatoring, etc.) the Permittee shall coordinate the proposed trench repair method and schedule with the City Engineer.

9. INSURANCE REQUIREMENTS

9.1 **Insurance Requirements -** Before issuing the encroachment permit, the qualified licensed contractor shall provide the City with evidence of General Liability Insurance in the amount of at least $1 million and provide an endorsement naming the City of Big Bear Lake as additionally insured. The certificate shall specifically name "The City of Big Bear Lake, its directors, officials, officers, employees, agents, and volunteers."

9.2 **Endorsement Example -** See attached example of endorsement showing City as additionally insured.

POLICY NUMBER: **COMMERCIAL GENERAL LIABILITY**

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Additional Insured Person(s) or Organization(s)	Location(s) of Covered Operations
City of Big Bear Lake, its Directors, Officials, Officers, Employees, Agents and Volunteers	Re: Street Reconstruction & Drainage Improvements
Information required to complete the Schedule, if not shown above, will be shown in the Declarations.	

A. **Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury," property damage" or "personal and advertising injury" caused, in whole or in part, by:

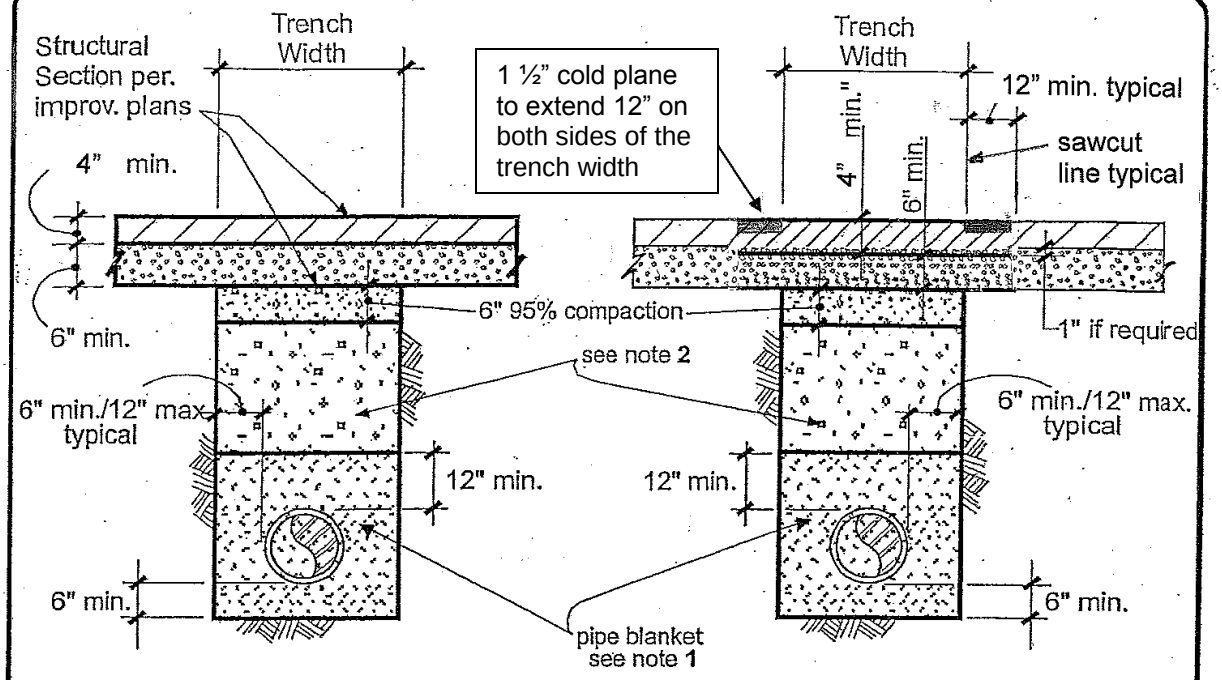
1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

In the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.



TYPE A
NEW PAVEMENT

TYPE B
EXISTING PAVEMENT

NOTES:

1. Backfill within pipe blanket shall be imported sand with S.E. 60 (90% relative compaction).
2. Backfill above pipe blanket may be material from trench excavation with 90% relative compaction in new pavement and 95% relative compaction in the top 6 inches. In existing pavement, the replacement section shall be the existing plus 1" A.C. or 4" A.C., whichever is greater.
3. The contractor has the option of replacing crushed aggregate base with A.C. at the ratio of 1" A.C. for 2" Class II Base P.C.C. pavement shall be replaced in kind plus 1".
4. If unsuitable material is encountered, additional bedding may be required by the City Engineer.
5. Minimum cover shall be: 42" for water mains, 6' to sanitary sewer inverts and 36" for other pipelines, unless otherwise approved by the City Engineer.
6. Minimum structural section shall be 4" A.C. over 6" Class II Base. The required structural section may be greater if required by the City Engineer.

Revisions	CITY OF BIG BEAR LAKE	Standard Plan No.
1 06/29/00 2 05/02/08 3 05/31/12 4 10/24/13	**PIPE BACKFILL IN TRENCHES**	
SKY	APPROVED BY: Brian W. Gengler Brian W. Gengler, City Engineer R.C.E. 44730 DATE: 8-6-99	