

# LAND DISTURBANCE PERMIT



Email request to: [dbodrero@herriman.org](mailto:dbodrero@herriman.org)

Permit expires in six (6) months if work has not commenced. Must be completed within 180 days or apply for extension.

(Because of conditions beyond control of permittee, Herriman may grant written extension of time. See page 3)

<b>Location of Land Disturbance:</b> (Project/Property Address)	
<b>Purpose of Land Disturbance:</b>	<b>Application Date:</b>
<b>Land Use:</b> <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Multi-Family <input type="checkbox"/> Roadway	
<b>Activity:</b> <input type="checkbox"/> Excavation <input type="checkbox"/> Grading <input type="checkbox"/> Stockpiling <input type="checkbox"/> Site Development <input type="checkbox"/> Material Storage <input type="checkbox"/> Fill	
<input type="checkbox"/> Other: if over 1 ac, provide UPDES# (or if part of existing SWPPP, provide number)	<b>Estimated Project Cost:</b>
<b>Grading:</b> _____ Cubic Yards/Acres	<b>Excavation:</b> Length: _____ Width: _____ Depth: _____
<b>Anticipated Start Date:</b>	<b>Proposed Completion Date:</b>
<b>Responsible Party (Applicant):</b>	Phone: _____ Email: _____
<b>Company:</b>	
Mailing Address: _____	City, State, Zip: _____
<b>Contractor:</b>	Phone: _____ Email: _____
Mailing Address: _____	City, State, Zip: _____
<b>Right of Way:</b> <input type="checkbox"/> Asphalt <input type="checkbox"/> Shoulder <input type="checkbox"/> Sidewalk/PUE <input type="checkbox"/> Bore <input type="checkbox"/> Curb Cut <input type="checkbox"/> Water Meter Move for <input type="checkbox"/> Utility <input type="checkbox"/> Landscaping <input type="checkbox"/> Other:	
<b>Brief Description of work:</b>	
<b>Documents required at submittal:</b>	
<input type="checkbox"/> <b>Video of the proposed construction site will be required to be submitted with this permit.</b> <input type="checkbox"/> <b>Notification to affected residents/businesses.</b> (a draft notification needs to be submitted for approval with this permit.) <input type="checkbox"/> SWPPP & NOI from State DEQ Division (if over 1 acre) – see <a href="http://www.waterquality.utah.gov">www.waterquality.utah.gov</a> <input type="checkbox"/> Erosion/Sediment Control Plan <a href="https://www.herriman.org/uploads/files/2088/SWPPP-Review">https://www.herriman.org/uploads/files/2088/SWPPP-Review</a> <input type="checkbox"/> Post construction BMPs (Best Management Practices) -Checklist-Herriman-City-v03.pdf <input type="checkbox"/> Traffic control plan for work in public right-of-way <input type="checkbox"/> Fugitive dust control permit from State DEQ Division <input type="checkbox"/> Grading plan to include accurate topography showing contours of the existing and proposed ground elevations	
<b>Agreement:</b> This permit becomes null and void if work or construction is not commenced within 180 days, or if construction is not complete with eighteen (18) months from the date of commencement of construction, unless a written extension has been issued by the City Engineer prior to the expiration date. A written extension may only be issued for good cause and may not exceed six (6) months. I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work shall be complied with, whether specified herein or not, the granting of this permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or the performance of construction and that I make this statement under penalty or perjury. By signing this agreement, I understand that the permit and plans must remain on-site and a statement of permit coverage must be clearly represented on site.	
<b>Signature of Applicant</b>	<b>Date:</b>

FOR CITY USE ONLY

<b>Approved by Engineering:</b>	<b>Date:</b>
<b>Inspector Assigned:</b>	<b>Completion Date:</b>
<b>Comments:</b>	
<b>Pavement Restoration shall be done by T-Patch, see APWA Plan 255 (attached)</b>	<b>Applicant shall submit video of the proposed work site to the engineering coordinator <a href="mailto:dbodrero@herriman.org">dbodrero@herriman.org</a></b>
<b>Herriman Use Only:</b> Permit #: LD _____ Bond Amount: _____ Paid Date: _____ Fee: _____ Bond Type: <input type="checkbox"/> Escrow <input type="checkbox"/> Cash <input type="checkbox"/> Letter of Credit Receipt # _____	

# LAND DISTURBANCE PERMIT



-----FEES-----

<b>Grading Fee Calculation</b>		
$\leq 50$ cu. yds.	\$23.50	\$23.50 fixed
51 to 100 cu. yds.	\$37.00	\$37.00 fixed
101 to 1,000 cu.yds.	\$37.00 + \$17.50	\$37.00 for the first 100 cubic yards, plus \$17.50 for each additional 100 cubic yards or fraction thereof
1,001 to 10,000 cu.yds.	\$194.50 + \$14.50	\$194.50 for the first 1,000 cubic yards, plus \$14.50 for each additional 1,000 cubic yards or fraction thereof
10,001 to 100,000 cu.yds.	\$325.00 + \$60.00	\$325.00 for the first 10,000 cubic yards, plus \$60.00 for each additional 10,000 cubic yards or fraction thereof
100,001 to 200,000 cu.yds.	\$919.00 + \$36.50	\$919.00 for the first 100,000 cubic yards, plus \$36.50 for each additional 10,000 cubic yards or fraction thereof
Plan Review Fee (if not part of subdivision)		Based on Cubic Yards

<b>ROW Fee Calculation</b>			
Fee Type	Quantity	Unit Price	Cost
Asphalt/Concrete Fee		\$250.00	\$
Asphalt/Concrete Sq.Ft.	x	\$0.50	\$
Shoulder/Landscape Fee		\$125.00	\$
Shoulder/Landscape Sq.Ft.	x	\$0.25	\$
Boring Fee		\$150.00	\$
Boring Sq.Ft.	x	\$0.50	\$
Lane Closure \$50.00/day	x lanes      x days	\$50.00	\$
Curb Cut	\$125.00	\$125.00	\$
Water Meter Move	x .25	\$125.00 + \$0.25/ln.ft.	\$

<b>Estimated Bond Amount:</b>	<b>Total Permit Fee:</b>
\$	\$

**PAYMENT.** Permit fee must be paid prior to commencement of work.

**BONDS.** A completion bond, in the amount set forth above, shall be submitted prior to approval of the work. The bond may be cashier’s check or letter of credit and shall remain in place for a one-year warranty period after the work has been completed. At the end of one year, the bondee may request an inspection of the work site by the Public Works Inspector; any defects found must be repaired, and then the bond may be released.

**INSURANCE.** A certificate of insurance, naming Herriman City as additional insured, is required to be filed with the city by the contractor performing the work prior to issuance of permit, and shall comply with Herriman City Ordinance 7-4-4.

**APPLICANT MUST NOTIFY ENGINEERING COORDINATOR OR PUBLIC WORKS INSPECTOR 24 HOURS BEFORE WORK BEGINS. NOTIFICATIONS TO AFFECTED RESIDENTS/BUSINESSES SHALL ALSO BE MADE 48 HOURS IN ADVANCE. PUBLIC WORKS INSPECTORS MUST INSPECT ALL WORK IN PUBLIC RIGHT-OF-WAY AND LAND DISTURBANCES. FOR WATER METER MOVES, THE INSPECTOR MUST BE PRESENT WHEN THE METER IS MOVED.**

Prior to commencement of work, applicant must submit a video of the proposed construction area to the engineering coordinator [dbodrero@herriman.org](mailto:dbodrero@herriman.org).

Certain jobs will require a pre-construction meeting prior to commencement of any work. Applicant will be notified during permit application process if this will be required.

# LAND DISTURBANCE PERMIT



The City Engineer will review each application for a land disturbance permit to determine conformance with local, State and other related requirements. Ordinance allows up to fifteen (15) days for the review process to be completed. Each Land Disturbance Permit expires in six (6) months from date of issuance if substantial work has not yet commenced. Each land disturbance permit will expire if work is not complete within eighteen (18) months from the date of commencement of construction. Written extension must be issued by the City Engineer prior to the expiration date. A written extension may only be issued for good cause and may not exceed six (6) months.

**Permits for Land Disturbance shall be required for the following cases:**

- Land disturbing activity generally disturbs one (1) or more acres of land.
- Land disturbing activity of less than one (1) acre of land if such activity is part of a larger common plan of development that affects one (1) or more acre of land.
- Land disturbing activity of less than one (1) acre of land, if in the discretion of the City Engineer such activity poses a unique threat to water quality, air quality, or public health or safety.
- The creation and/or use of borrow pits.
- Development of any parcel.
- Processing of earthen materials such as top soil and gravel screening.
- Construction of parking lots.
- Placement or stockpiling of materials.
- Modification of Sensitive Lands
- Land disturbing activity involving materials storage, stockpiling, grading, excavation, fill, or similar activity.
- Any work done in public right-of-way.

No building permit shall be issued until the applicant has obtained a Land Disturbance Permit where the same is required by this ordinance.

No development plans will be approved and released for construction until the Land Disturbance Permit has been issued.

A Storm Water Maintenance Agreement is required for projects disturbing more than one (1) acre.

REQUIRED DOCUMENT SUBMITTAL INFORMATION	
PERMIT	WHERE/WHO ADMINISTERS
Land Disturbance Permit	Obtained through Herriman City. Allow 15 days for review and comment.
Traffic Control Plan	Must be provided for any and all work that affects traffic flow, including pedestrian traffic.
Certificate of Insurance	Contractor must provide a certificate of insurance naming Herriman City as additional insured.
Bonding	A bond must be filed with the City prior to approval of permit.
Video of site	A video of site shall be submitted prior to commencement of construction
Storm Water Pollution Prevention Plan (SWPPP)	Submitted to the City for review and is required to obtain a Land Disturbance Permit when disturbing an acre or more or if part of a common plan of development of an acre or more. Contact your engineer.
Notice of Intent (NOI)	Obtained through the State of Utah Department of Environmental Quaility Division of Water Quality. <a href="http://www.waterquality.utah.gov/UPDES/stormwater.htm">http://www.waterquality.utah.gov/UPDES/stormwater.htm</a>
Notice of Termination (NOT)	Submitted to the State of Utah Department of Environmental Quaility Division of Water Quality and verified by the City. Project must be complete and meet requirements of "final stabilization" of all disturbed areas. <a href="http://www.waterquality.utah.gov/UPDES/stormwater.htm">http://www.waterquality.utah.gov/UPDES/stormwater.htm</a>
Other permits and approvals: Air Quality, Salt Lake County, NRCS, Canal Company, private parties, etc.	Contact the City for direction. 801-446-5323
Notification to Residents	A draft notification to residents and/or businesses that will be impacted by the proposed work will need to be submitted with the permit application. This may be in the form of a door hanger, letter, or other form of notification, and shall include at a minimum the proposed dates of work, a 24/7 field contact name and phone number, the contractor or subcontractors's name and the developer/utility initiating the work.

# LAND DISTURBANCE PERMIT



Permittee agrees to comply with all applicable ordinances and laws of the state of Utah and of Herriman and also with Herriman City Standards & Specifications, the Manual on Uniform Traffic Control Devices–Federal Highway Administration and APWA Standards Specifications and Plans, current edition.

This Permit controls grading, excavation and construction operations. It is also implemented to cover special requirements for work in general, maintenance, private construction, and additions to utility systems in public ways. Permittee shall furnish all labor, material, and equipment as required to perform all excavation and rehabilitation for structures, trenches, roadways, including, but not limited to, disposal of excess material, dust control, and drainage.

## **Work in Rights-of-Way:**

No streets shall be cut or excavated within Herriman City; all streets shall be bored or drilled by whatever means possible. However, after all methods have been exhausted, and an onsite inspection has occurred by a Herriman City Inspector or City representative, a street excavation may be approved. The following guidelines for street cuts will apply: street surfacing; must be saw cut leaving well defined edges and not gouged with a backhoe or other similar equipment. The trench section shall conform to standards noted on the attached page of this permit. Monuments within the right-of-way shall not be disturbed without authorization of Herriman's engineer. Before permittee begins to dig, all public utility companies must be contacted for information pertaining to the location of utility company lines.

Notification. A draft notification to residents and/or businesses that will be impacted by the proposed work will need to be submitted with the permit application. This may be in the form of a door hanger, letter, or other form of notification, and shall include at a minimum the proposed dates of work, a 24/7 field contact name and phone number, the contractor or subcontractors's name and the developer/utility initiating the work. See APWA 00 72 00 6.12 E.

Safety. Permittee is responsible to conduct all work in a manner that shall protect the safety of workers, residents, pedestrians, and motorists. See APWA 00 72 00 6.12

Purpose. This Permit is for the construction of water, gas, sewer, storm drains, underground cables, pole lines, or other facilities within the rights-of-way of Herriman City. It is issued with the understanding that the Permittee is responsible for restoration of the original ground or paved hard surface area to comply with the City's Standards & Specifications, including but not limited to repair, cleanup, backfilling, compaction, stabilization, paving and other work necessary to place the site in acceptable condition following the conclusion of the work or the expiration or revocation of the Permit. Permittee is responsible for the removal of all asphalt, shoring, cribs, cofferdams, caissons, including all pumping, bailing, draining, sheeting, bracing, and all related items. Contractor is responsible to protect existing facilities, utilities, and structures affected by the excavation.

Non-Transference. This Permit shall not be transferred or assigned, and work shall not be performed under this Permit in any place other than that specified herein. Nothing herein shall prevent a Permittee from subcontracting the work to be performed under this Permit; provided, however, that the Permittee shall be responsible for the performance of the work under this Permit, and for all bonding, insurance, and other requirements of the ordinances of Herriman and of this Permit.

Bonding and Insurance. An irrevocable letter of credit, escrow agreement, or cash deposit bond must be filed with the City prior to excavation. A certificate of insurance must also be provided by the contractor doing the work.

Video of Site. Prior to commencement of work in rights-of-way, applicant must submit a video of the proposed construction area to the permit technician and the public works inspector.

Traffic Control. Prior to approval of the excavation permit, a traffic control plan must be submitted by the Permittee for review and approval of the City. The traffic plan is to be in conformance with the current MUTCD and must be approved prior to excavation, construction, or any occupation of the public right-of-way. Traffic control devices must be in place before traffic disturbance or excavation begins. The devices shall be maintained throughout the construction period and shall not be removed until all equipment and material are removed, excavation is backfilled, and temporary or permanent surface is installed. Traffic Engineer may require certified traffic control personnel during set up and tear-down of all traffic control devices. Lighted early warning arrow boards will be required on all major arterial and collector streets. The Permittee shall not obstruct the view of any traffic control devices. All disturbed traffic control devices shall be immediately replaced, cleaned or repaired as directed by the City. From sunset to sunrise, all barricades and excavations must be clearly outlined by adequate signal lights, etc.

Traffic Obstruction. Construction operations will be conducted in a manner that will minimize interference or interruption of roadway traffic or pedestrian traffic, except during emergency conditions, or unless authorized by the City Engineer. Inconvenience to residents and businesses fronting on the public way shall be minimized.

Access. Permittee shall provide free and unobstructed access to all pedestrian crosswalks, ADA access ramps, driveways, mailboxes, trash receptacles, fire hydrants, water gates, valves, manholes, drainage or other public service structures and property that may be required for emergency use. Permittee shall not remove such public service facilities and property or relocate same without proper coordination with the authorities charged with control and maintenance of same. Barricades in conformance with MUTCD or covered walkways for the protection of the general public shall be provided whenever any work or storage of materials is being done.

Hours of Work. Construction activities shall be limited to normal working hours between 7:00 a.m. and 7:00 p.m., unless otherwise approved or restricted by the Engineer. In addition, construction operations such as excavation, backfill and pavement restoration on arterial/collector streets shall be prohibited during peak traffic hours of 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. Permittee shall notify Herriman Police Department and Unified Fire Department forty-eight (48) hours in advance of all road closures. Permittee shall notify these Emergency Services upon completion and reopening of roadway.

Responsibility. It is further understood and agreed that the Permittee is responsible for any and all costs, damages and liabilities, which may accrue or be claimed to accrue by reason of any work performed under the Permit. The Permittee agrees to save the City, its officers, employees and agents harmless from any and all costs, damages and liabilities which may accrue or be claimed to accrue by reason of any work performed under this

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Permit. The issuance and acceptance of this Permit shall constitute such a hold harmless agreement by the Permittee.

Liability. This Permit shall neither be construed as imposing upon the City, its officers, employees, agents, volunteers or assigns any liability or responsibility for damages to any person injured by or by reason of the performance of any work within the public way, or under this Permit; nor shall the City, its officers, officials, employees, agents, volunteers or assigns thereof be deemed to have assumed any such liability or responsibility by reason of inspection, the issuance of this Permit, or the approval of any work.

**Excavation Operation:**

Locating and Protecting Existing Utilities: The Permittee shall notify Blue Stakes at least two (2) working days prior to commencing work, and shall use extreme caution to avoid conflicts, contact or damage to existing utilities such as waterlines, storm drain lines, power lines, gas lines, street lights, fiber optic lines, telephone lines, television lines, sewer lines, poles and appurtenances during the course of construction. In case damage occurs, the Permittee will immediately notify the utility or company involved and Herriman City (446-5323).

Protection of Paved Surfaces Outside of Excavation Area: In order to avoid unnecessary damage to paved surfaces, backhoes, outriggers, track equipment or any other construction equipment that may prove damaging to asphalt are required to use rubber cleats or paving pads when operating on or crossing roadway surfaces.

Jacking and Boring of Buried Conduits: Jacking or boring of service lines under paved surfaces is preferred to trench excavation and may be required in some city streets as designated by the Engineer. If open excavation for service lines is requested in a street which was paved or resurfaced within the last two years, an engineering evaluation and explanation of why boring is not feasible shall be presented to the Engineer. The Engineer shall approve or disapprove the application based on the merits of the arguments presented.

Tunneling: Tunneling is not allowed except when written permission is obtained from the Engineer.

Cutting of Sidewalks, Curbs Gutters etc.: Removal or alteration of any existing improvement, structures, landscaping or any other facility in the Public Way that is in conflict with the proposed excavation will be identified on the Permit. Sidewalk and curb & gutter may be saw cut and removed to the nearest control joint (score line). Any existing improvements damaged by operations outside of the limits of the trench shall be repaired or replaced in conformance with current Herriman City Standards and Specifications.

Cutting Pavement: Pavement shall be cut in a neat, vertical straight line prior to excavation. All excavations within twenty four (24) inches of any structure, concrete, or edge of existing pavement surface shall remove and replace permanent surfacing to the concrete or structure. If more than 50% of the permanent surfacing of a traveled lane is impacted by the excavation, the entire lane width will be required to be saw cut, removed, and replaced in compliance with current City standards. Trenching or excavation is not permissible within eighteen (18) inches of any concrete structure, unless permitted by the Engineer. Any surface or underlying pavement outside the trench which is undermined or damaged by the trenching operation shall be removed to a neat, straight line, and replaced. In some areas

where native, clean sands are present, the Engineer may require that trenching exceeding five (5) feet in depth be required to remove and replace surfacing for a minimum of two (2) times the depth unless direct contact shoring is provided to fully support the trench walls for full depth of the excavation. The use of drop hammer for pavement cutting is not allowed. Saw cutting or use of a (jackhammer) pavement breaker for cutting pavement are the only acceptable cutting methods.

Open Trench: Unpaved and open trench shall not exceed 800 lineal feet within the right-of-way. A maximum of 250 feet may be under construction while 250 feet is being paved.

Construction of manholes or other appurtenances requiring added construction and cure time may be left unpaved for additional time provided they are properly barricaded. The Engineer may adjust these limits if conditions warrant.

1. All open trenches within the Public Way shall be barricaded and covered in conformance with the MUTCD. No open trenches will be allowed overnight. Any disturbed surfacing will be stabilized, compacted or temporarily surfaced at the end of each day. In certain circumstances, the Engineer may allow deeper trenches to be left open overnight with proper protection. Trenches more than five (5) feet deep shall not remain open overnight.
2. By approval of the Engineer, when backfill operations of an excavation in the traveled way, whether transverse or longitudinal, cannot be properly completed within a work day, steel plate bridging with non-skid surface and shoring may be required to preserve unobstructed traffic flow. In such cases, the contractor shall ensure that plating is structurally safe and adequate, but in no case less than the following requirements:

Trench Width	Minimum Plate Thickness
10"	½"
1'-11"	¾"
2'-7"	7/8"
3'-5"	1"
5'-3"	1 ¼"

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by minimum of two dowels through pre-drilled holes in the corners of the plate and drilled at least 3" into the pavement. Subsequent plates are butted to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum (slope 8.5% with a minimum of 12" taper) to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry or equivalent slurry that is approved by the Engineer. The contractor is responsible for maintenance of steel plates, shoring, asphalt concrete ramps, and ensuring that they meet minimum specifications.

3. Plates are not allowed between October 15-April 15, or when snow is in the forecast.

Backfilling: Backfill in Pipe Zone: Backfill in the pipe zone shall conform to the respective utility specifications and/or Herriman City Standards & Specifications. Pipe Zone associated with Herriman City utilities shall comply with APWA 2017 (or current edition) Section 33 05 20 untreated base course grade ¾ per select fill target gradation curve. Contractor shall establish an average of 96% percent compaction based on modified proctor throughout the pipe zone.



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## Backfill above Pipe Zone:

1. Horizontal Trenches: Cement Treated Fill (Flowable Fill) shall be used on all trenches that cross the right-of-way creating a right angle with the travel lanes. Cement Treated Fill shall be used in the trench above the pipe zone to the finished sub-base elevation. Permittee shall submit to Engineer for approval a mix design as established in the APWA 2017 (or current edition) section 33 05 20 and Special Provision Section 33 05 20.
2. Longitudinal Trenches: Cement Treated Fill (Flowable Fill) shall be used on all trenches that are less than 50 feet in length with a right-of-way that runs parallel with the travel lane. Cement Treated Fill shall be used in the trench above the pipe zone to the finished sub-base elevation. Permittee shall submit to Engineer for approval a mix design as established in the APWA 2017 (or current edition) section 32 05 10. Backfill material within longitudinal trenches greater than 50 feet shall comply with APWA 2017 (or current edition) Section 33 05 20 untreated base course grade  $\frac{3}{4}$  per select fill target gradation curve. Contractor shall establish an average of 96% compaction based on modified proctor throughout the pipe zone.
3. Placement of Backfill Lifts: Place backfill lifts such that the new utilities are not displaced or damaged.
  - a. Maintain specified lift thickness and compaction density throughout the backfill in compliance with APWA 2017 (or current edition) section 33 05 20 and with Herriman City Standards and Specifications. Maximum lift thickness before compaction is 8-inches. Mechanically compact each lift to 96% average compaction of ASTM D-1557 modified proctor.
  - b. Place backfill with  $\pm 2\%$  of optimum moisture content. Moisture shall be applied uniformly to material.

## Resurfacing:

1. Restoration of Right of Way Improvements: All improvements and appurtenances impacted or damaged by the Permittee shall be restored or replaced to an acceptable condition, at least equal in size, line performance, quality and grade. All restoration shall comply with Herriman City Standards and Specifications. Applications for exceptions must be in writing and approved by the Engineer.
2. Bituminous Materials: Bituminous Material shall comply with APWA 2017 Standard Specification (or current edition) Section 32 12 05 Asphalt Concrete and Section 32 12 16 Plant Mix Asphalt Concrete Paving. The  $\frac{3}{4}$  inch gradation is required for the surface course. Ambient temperatures of fifty (50) degrees are required for permanent asphaltting.
3. Tack Coat: Tack coat the exposed vertical edges of asphalt per APWA 2017 (or current edition) Standard Specification Section 32 12 14 Tack Coat.
4. Finishing of Asphalt Surfaces: Pavement surfaces distortion shall not exceed  $\frac{1}{4}$  inch deviation in ten (10) feet. Measurement shall be made using a ten (10) foot long straight edge. Permittee shall provide a seal coat, grinding or approved repair if road restoration does not comply with tolerances. Pavement restoration shall comply with APWA 2017 (or current edition) Standard Plan 255, Bituminous Pavement T-patch.
5. Compaction: Compact each lift in conformance with APWA 2017 (or current edition) Standard Specifications Section 32 12 16 Plant Mix Asphalt Paving. Asphalt compaction shall be accepted when the density reaches a minimum of 96% and maximum of 98% based on laboratory Marshall Method values (ASTM D 5581).

6. Structures to Finish Grade: All manholes and other utility access structures shall be raised and collared according to Herriman City Standard and Specifications. Permittee shall protect concrete collars with metal plates on all collector and arterial streets for a minimum of three (3) days or until specified strength of the concrete is attained.
7. Street Striping Restoration: Permittee shall notify Engineer of any street striping damaged, removed, or marred by construction operations. Herriman City may repair or approve Permittee to repair striping; but, in either case, the cost shall be borne by Permittee.

**Sidewalks and streets shall not be obstructed.** Excavated materials shall be removed from the job site during the construction process. Finished grades must be restored to original grade immediately upon completion of site / job specific improvements for work permitted on sidewalks and roads. Temporary materials may be used upon approval of the City's Public Works Inspector. All concrete and asphalt replacement behind curb must be completed within forty-eight (48) hours of completion of all groundwork. All work must be inspected and approved by the City's Public Work Inspector. All inspections shall require one day (24 hours) advance notice by notifying the City at 801-446-5323.

**Dust and Debris:** Permittee shall control dust and debris at the work site, adjacent neighborhoods, and rights-of-way at all times. If necessary, wet down dusty areas with water and provide containers for debris. The Engineer may issue a stop work order if dust and debris is not controlled. Immediate stop work order with penalties may be issued for tracking mud, soil or debris into the public way or for washing any contaminant or debris into storm drain, ditch, channel, pipe or gutter, etc. To rescind the stop work order, the Engineer may require facilities to be installed such to prevent further tracking of soil or debris into any public way.

**Clean up:** Permittee shall remove all equipment, material, barricades and similar items from the right-of-way. Areas used for storage of excavated material shall be smoothed and returned to their original contour and condition. Vacuum sweeping or hand sweeping is required when the City determines current cleaning method is ineffective or inadequate.

**Restoration.** Permittee shall restore any public way to its original condition. All construction activities will utilize Best Management Practices (BMP's) in such a manner as to minimize erosion and deposition of sediments and other pollutants into storm drainage facilities and/or waters of the State. All restoration work shall be guaranteed by City bond requirements. If the Permittee does not restore properties to their original condition within the time indicated herein, it is agreed that the City shall make the necessary restoration at Permittee's expense, including but not limited to, charges against the bond, which expense shall be deemed to include interest at the current rate until paid in full.

**Repair of excavation perpendicular to traveled lanes shall be complete within seventy-two (72) hours from the time excavation begins. A penalty of \$150.00 per day will be assessed for restoration not completed within such seventy-two (72) hour period without a written time extension from the City Engineer.** Repair of excavation parallel to traveled lanes shall commence within ten (10) days from the time excavation begins and be completed within fifteen (15) days from the time excavation begins. A penalty of \$150.00 per day will be assessed for restoration not completed within such fifteen (15) day

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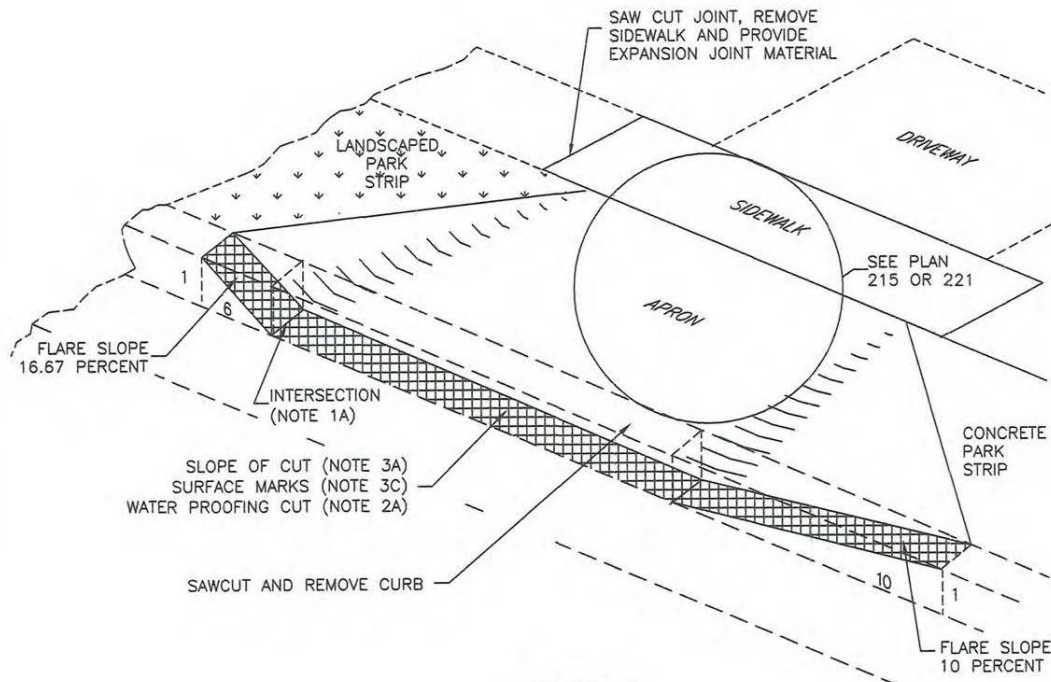
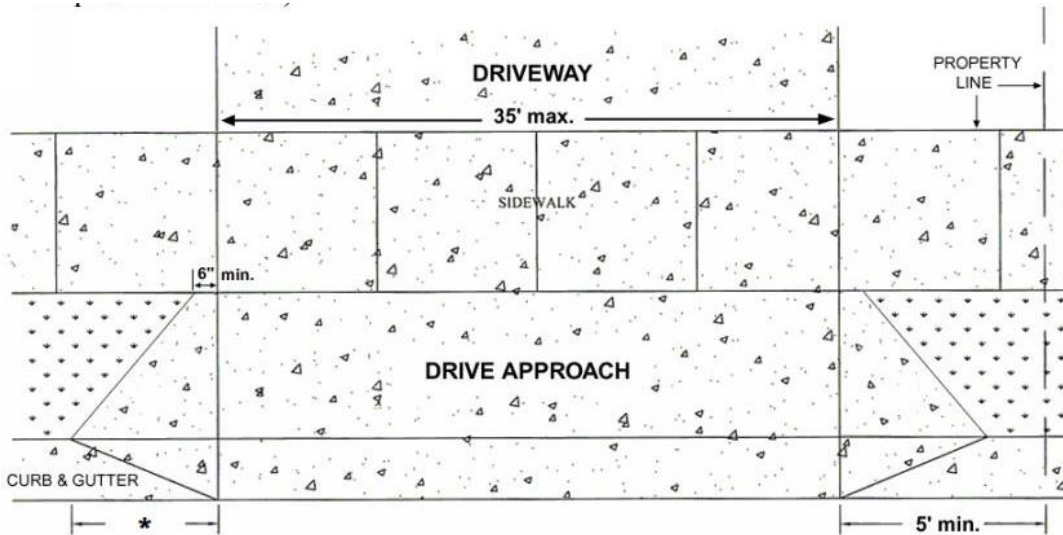
period without written time extension from the City Engineer. Only a minimal open trench (to be determined by the City Engineer or other designee appointed by the City Engineer) will be allowed overnight.

## WATER METER MOVE PERMIT

Permits for the purpose of moving a water meter, out of driveways or for other purposes shall comply with all applicable requirements set forth above. The Water Inspector must be present when the water meter is being moved. All inspections shall require one day (24 hours) advance notice by notifying the City at 801-446-5323 and scheduling inspection with the water department.

## CURB CUT

Permits for curb cuts to widen a driveway or create a second driveway will comply with the above requirements. The curb cut shall be completed in accordance with Plan 221.1, 2212 or 222 of APWA Standard Plans, current edition, as applicable. Six-inch depth of compacted UB, 6" depth of concrete. #4 gauge steel 2' long dowels 2' on center drilled into the curbside. Sidewalk side, full depth 6" expansion. Driveways may not be more than 35' wide, and single-family homes may only have one driveway unless a circular driveway is used. Second driveways or driveways wider than 35' may be approved by the City Engineer upon submittal of a proposed site plan with location or requested driveway and address of property shown.



**OBLIQUE**

## ***Bituminous pavement T-patch***

### **1. GENERAL**

- A. Vertical cuts in bituminous pavement may be done by saw or pavement zipping. If cuts greater than 6 inches are necessary to prevent pavement "break off" consult ENGINEER for directions on handling additional costs.
- B. Repair a T-patch restoration if any of the following conditions occur prior to final payment or at the end of the one year correction period.
  - 1) Pavement surface distortion exceeds 1/4-inch deviation in 10 feet. Repair option - plane off surface distortions. coat planed surface with a cationic or anionic mulson that complies with APWA Section 32 12 03..
  - 2) Separation appears at a connection to an existing pavement or any Street Fixture. Repair option - blow separation clean and apply joint sealant, Plan 265.
  - 3) Cracks at least 1-foot long and 1/4-inch wide occur more often than 1 in 10 square feet. Repair option - blow clean and apply crack seal, Plan 265.
  - 4) Pavement raveling is greater than 1 square foot per 100 square feet. Repair option - Mill and inlay, APWA Sections 32 01 16.71 and 32 12 05.

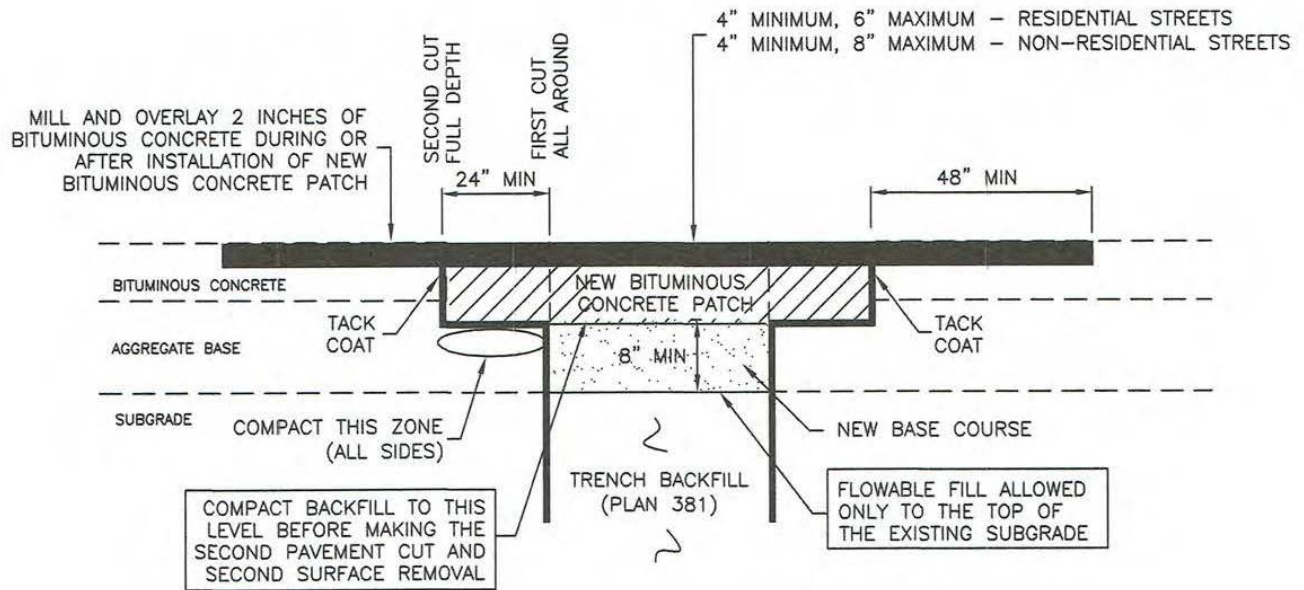
### **2. PRODUCTS**

- A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
- B. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.
- C. Reinforcement. No. 5, galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
- D. Concrete: Class 4000, APWA Section 03 30 04.
- E. Tack Coat: APWA Section 32 12 13.13.
- F. Bituminous Concrete. APWA Section 32 12 05.
  - 1) Warm Weather Patch: PG64-22-DM-1/2, unless indicated otherwise.
  - 2) Cold Weather Patch: Modified MC-250-FM-1 as indicated in APWA Section 33 05 25.

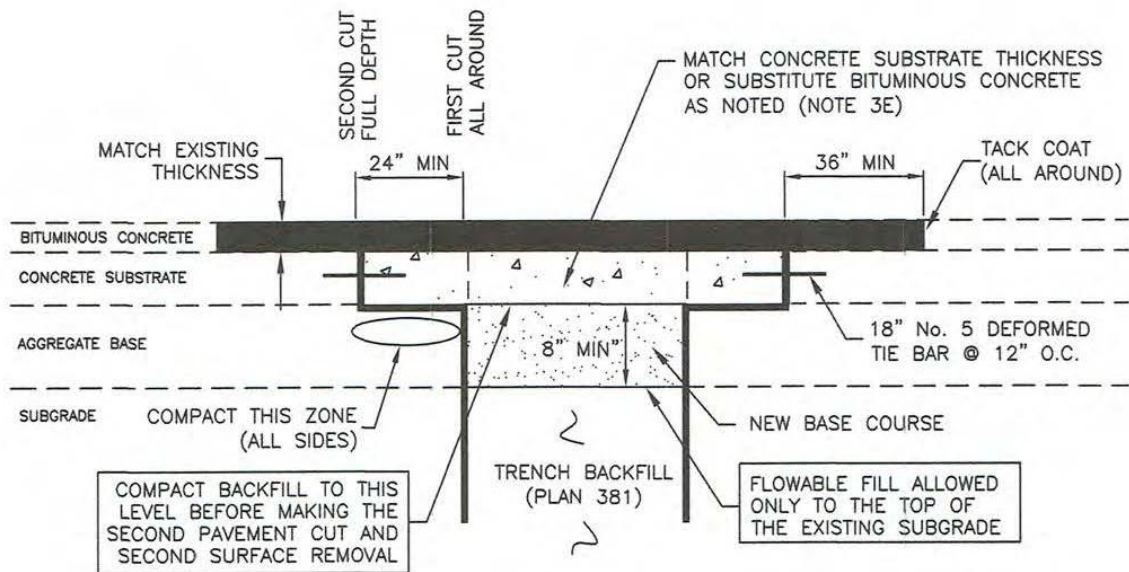
### **3. EXECUTION**

- A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
- B. Flowable Fill: Cure to initial set before placing aggregate base or bituminous pavement. Use in excavations that are too narrow to receive compaction equipment.
- C. Tack Coat. Clean all horizontal and vertical surfaces. Apply full coverage all surfaces.
- D. Pavement Placement: Follow APWA Section 32 12 16.13. Unless indicated otherwise, lift thickness is 3-inches minimum after compaction. Compact to 94 percent of ASTM D2041 (Rice density) plus or minus 2 percent.
- E. Bituminous Concrete Substitution: If bituminous concrete is substituted for Portland cement concrete substrate, omit rebar and provide 1.25 inches of bituminous concrete for each 1 inch of Portland cement concrete. Follow paragraph E requirements.
- F. Reinforcement. Required if thickness of existing Portland-cement concrete substrate is 6-inches or greater. Not required if 1) less than 6-inches thick, 2) if existing concrete is deteriorating, 3) if excavation is less than 3 feet square, or 4) if bituminous pavement is substituted for Portland-cement concrete substrate.
- G. Concrete Substrate. Cure to initial set before placing new bituminous concrete patch.





**BITUMINOUS CONCRETE RESTORATION**



**COMPOSITE RESTORATION**