

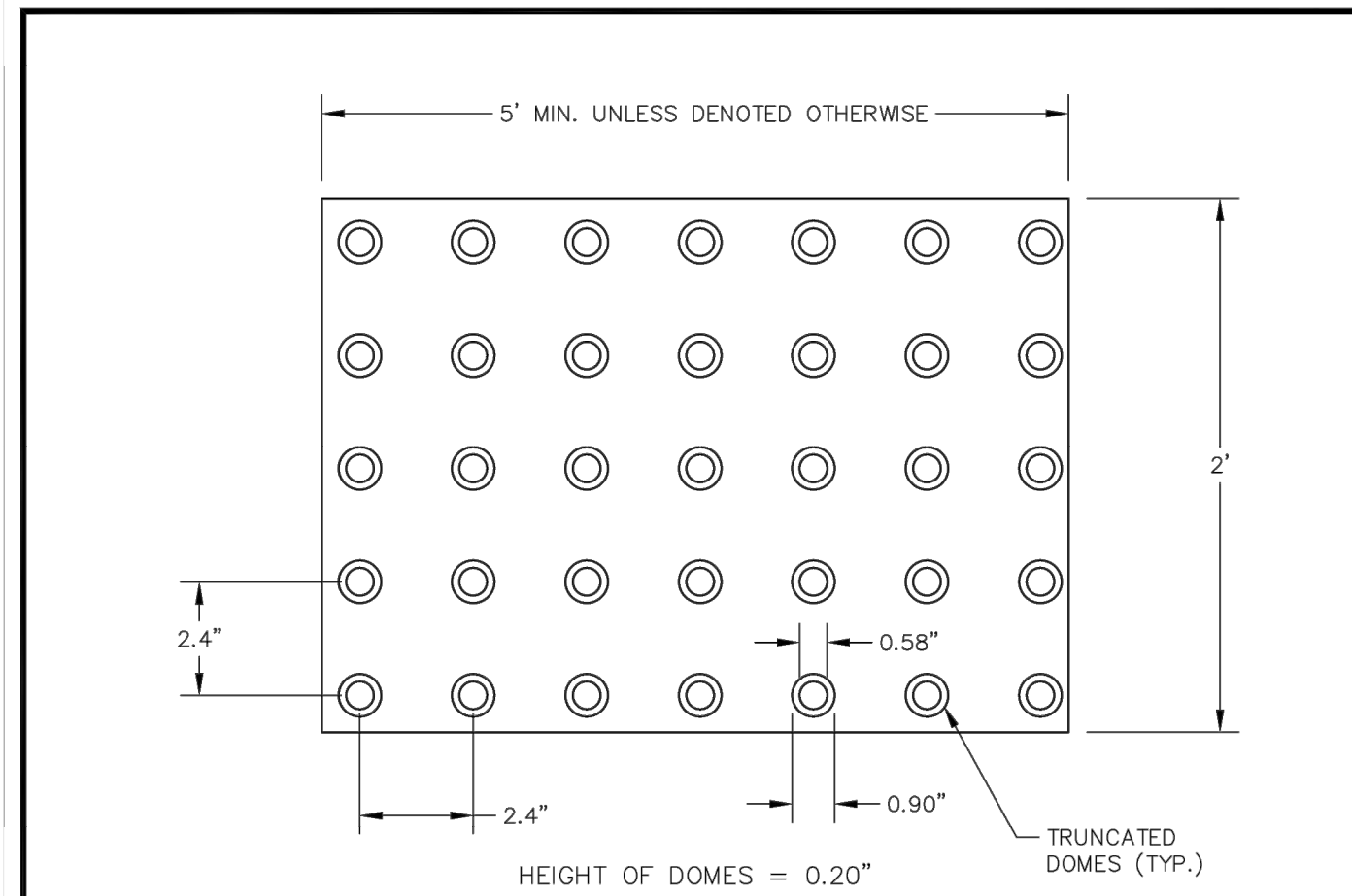
NOTES:

1. WHEN CONSTRUCTING ATTACHED SIDEWALK, CONTRACTION JOINTS FOR SIDEWALKS SHALL MATCH CURB AND GUTTER, MAXIMUM SPACING OF TEN (10) FEET.
2. AT RESIDENTIAL DRIVEWAYS, THE SIDEWALK THICKNESS SHALL BE INCREASED TO SIX (6) INCHES.
3. EXPANSION JOINTS REQUIRED AT 400 FOOT MAXIMUM SPACING. ADDITIONAL JOINTS MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER. SEE JOINT DETAILS.
4. AT ALLEYS AND COMMERCIAL DRIVEWAYS, THE CURB AND SIDEWALK THICKNESS SHALL BE INCREASED TO EIGHT (8) INCHES.
5. CONCRETE SURFACES TO RECEIVE A LIGHT BROOM FINISH.



VERTICAL FACE CURB AND GUTTER
DETAIL NO. S-16

DATE: JULY, 2015 SCALE: N.T.S.



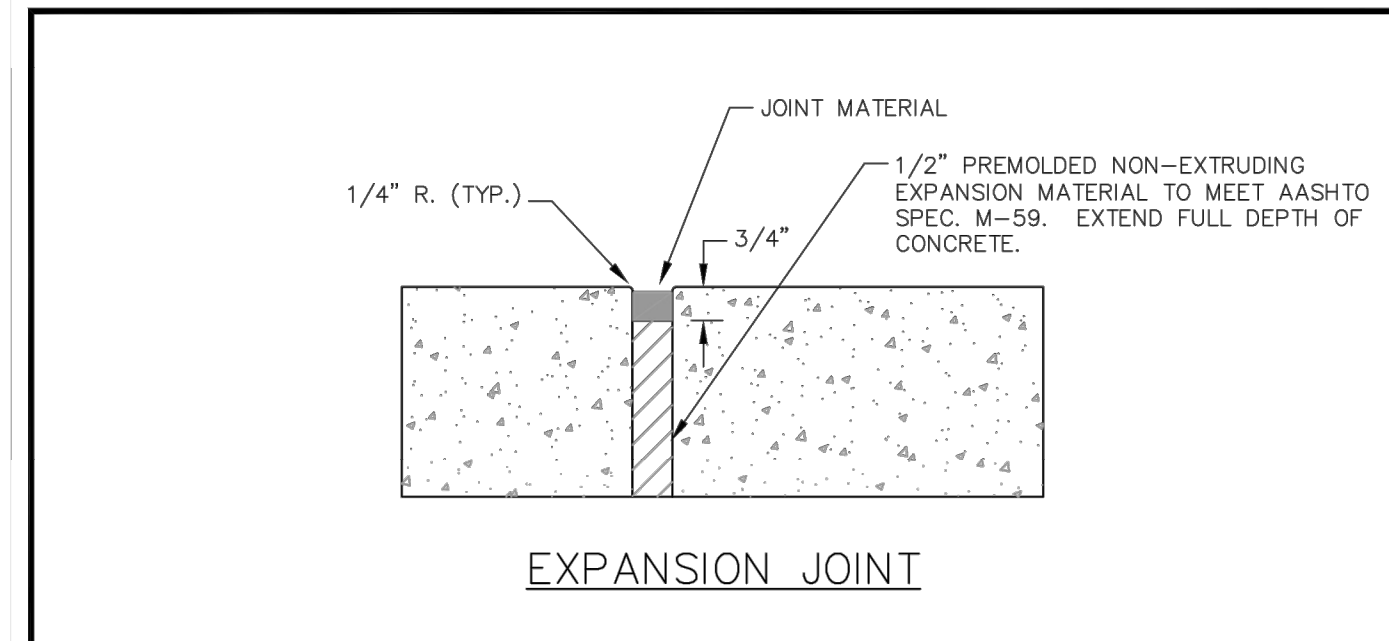
NOTES:

1. COLOR SHALL BE APPROVED BY THE CITY BUT IN ALL CASES THE COLOR SHALL CONTRAST WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.
2. ADA DETECTABLE WARNING SHALL BE INSTALLED 6" TO 8" FROM FLOWLINE USING APPROVED MATERIAL.



ADA DETECTABLE WARNING DETAIL
DETAIL NO. S-17

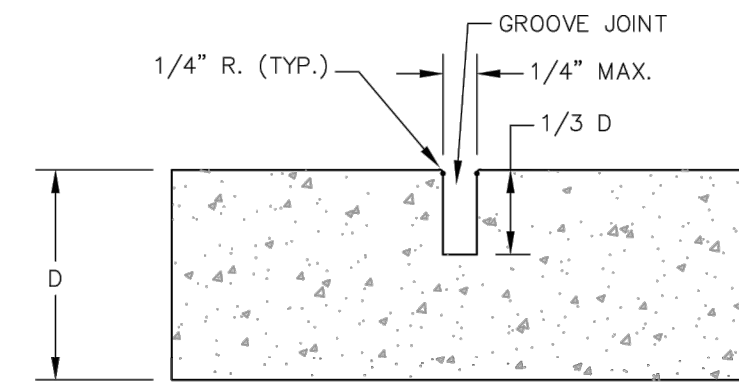
DATE: JULY, 2015 SCALE: N.T.S.



EXPANSION JOINT

NOTE FOR EXPANSION JOINTS:

EXPANSION JOINTS REQUIRED AT 400 FOOT MAXIMUM SPACING. ADDITIONAL JOINTS MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.



CONTRACTION JOINT

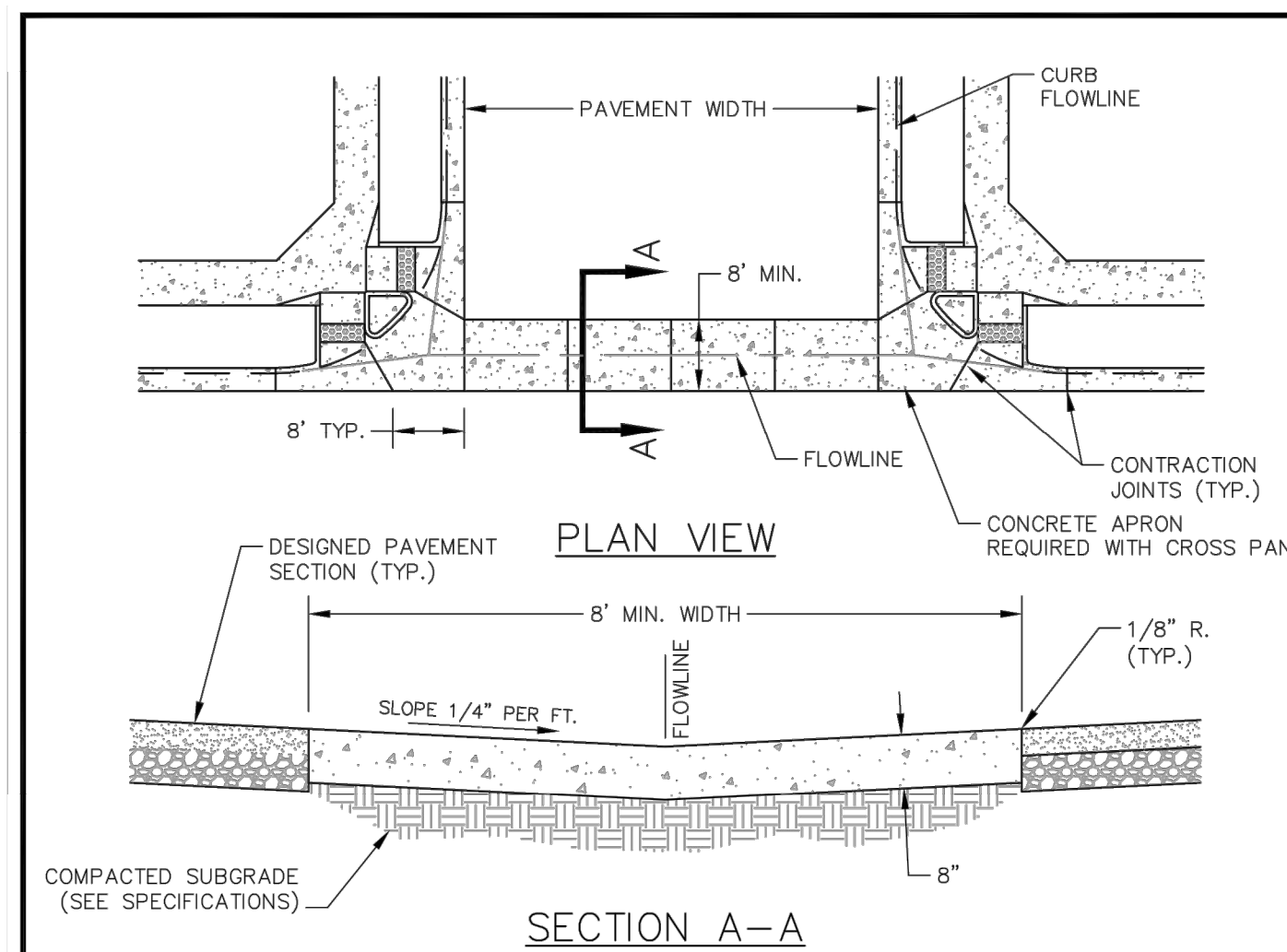
NOTES FOR CONTRACTION JOINTS:

1. FORM WITH TOOL TEMPLATE OR SAWCUT JOINTS.
2. SAWCUT JOINTS, IF USED, SHALL BEGIN AS SOON AS CONCRETE IS HARDENED SUFFICIENTLY TO PERMIT SAWING WITHOUT EXCESSIVE RAVELING AND BEFORE UNCONTROLLED CRACKING OCCURS.
3. MAXIMUM DISTANCE BETWEEN JOINTS IS TEN (10) FEET AND MINIMUM DISTANCE IS FIVE (5) FEET.



CONCRETE JOINT DETAILS FOR SIDEWALKS, CURBS, GUTTERS AND CROSS PANS
DETAIL NO. S-22

DATE: JULY, 2015 SCALE: N.T.S.



PLAN VIEW

SECTION A-A

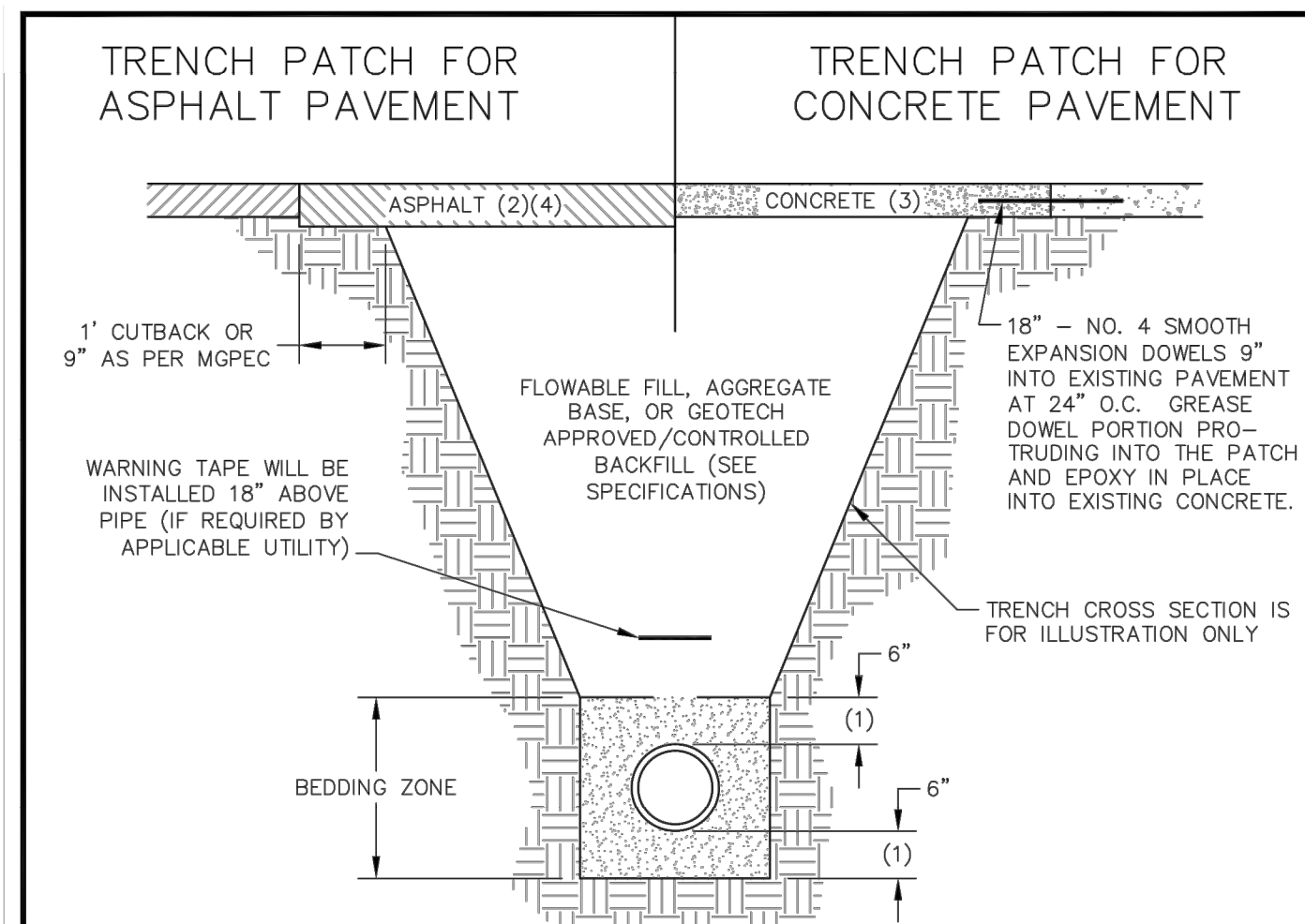
NOTES:

1. MINIMUM OF 0.6% LONGITUDINAL SLOPE FOR CROSS PANS.
2. MAXIMUM SPACING OF CONTRACTION JOINTS - TEN (10) FEET.
3. CONCRETE APRON SHALL BE POURED MONOLITHICALLY WITH CURB AND SHALL BE 8" THICK (SEE CURB RAMP DETAILS).
4. CROSS PAN AND APRON MAY BE POURED MONOLITHICALLY OR IF POURED SEPARATELY SHALL BE DOWELLED TOGETHER.
5. SEE STREET DESIGN STANDARDS FOR PERMISSIBLE LOCATIONS OF CROSS PANS.
6. MID-BLOCK CROSS PANS SHALL BE A MINIMUM OF TEN (10) FEET WIDE.
7. LARGER WIDTHS MAY BE REQUIRED BY THE CITY.
8. DOWELING MAY BE REQUIRED AT CERTAIN COLD JOINTS AT THE CITY'S DIRECTION, BASED ON SPECIAL SUBGRADE CIRCUMSTANCES.
9. CONCRETE SURFACES TO RECEIVE A LIGHT BROOM FINISH.



CONCRETE CROSS PAN DETAIL
DETAIL NO. S-28

DATE: JULY, 2015 SCALE: N.T.S.



	ALLEY	EMER ACCESS	RESIDENTIAL	MAJOR LOCAL COMMERCIAL & INDUSTRIAL	COLLECTOR	ARTERIAL
FULL DEPTH ASPHALT (4)	5 1/2"	5 1/2"	5 1/2"	7"	7"	7"

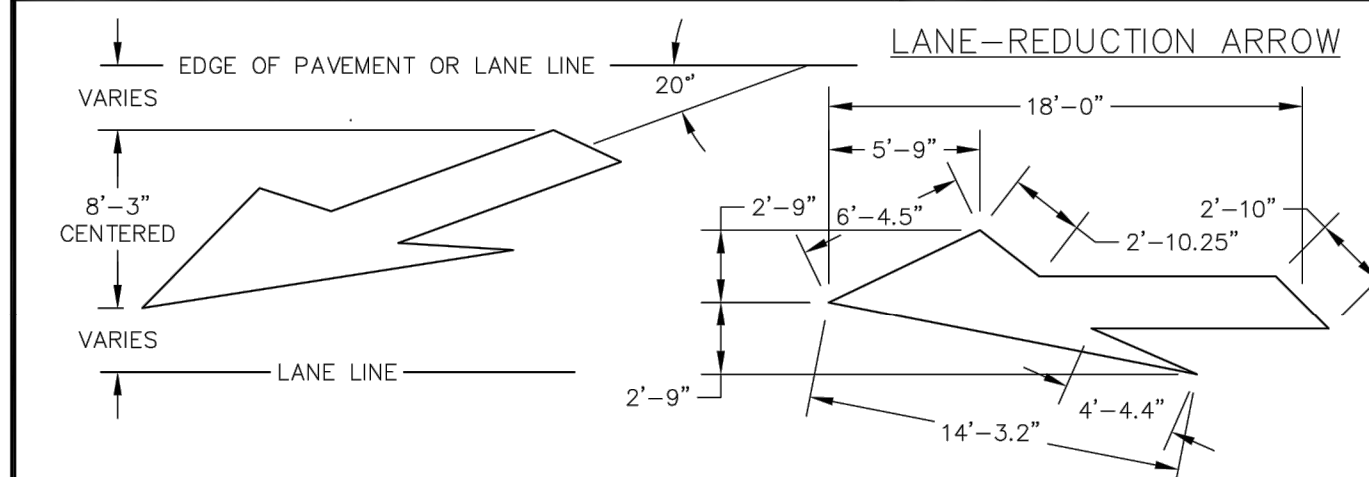
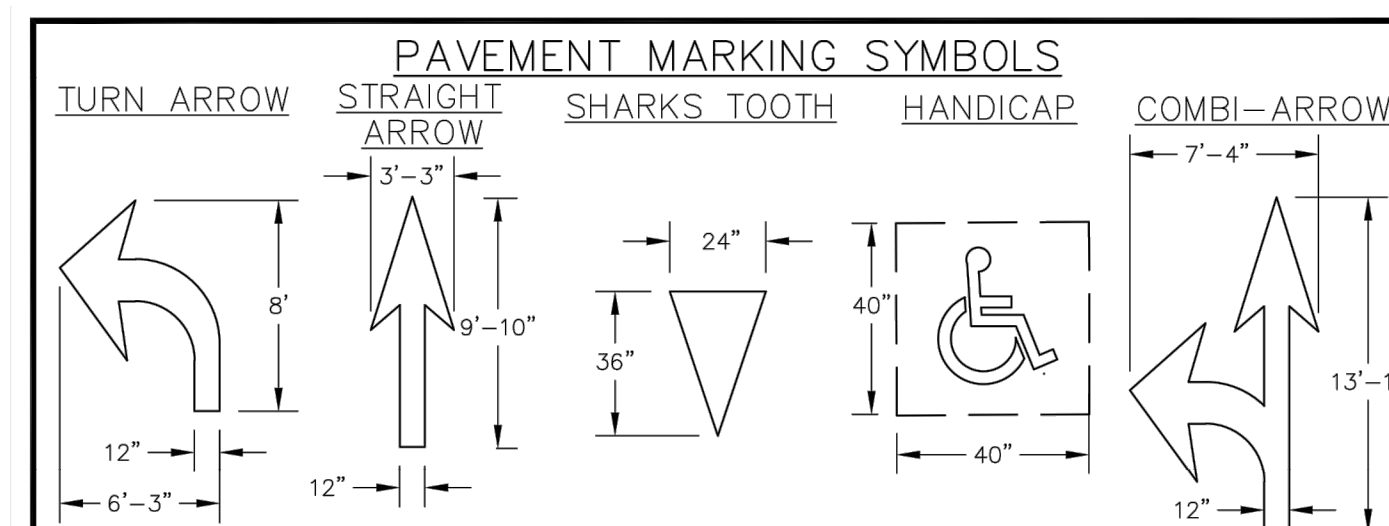
NOTES:

1. USE THE LIMITS OF BEDDING SHOWN IF NOT SPECIFIED BY THE APPLICABLE UTILITY.
2. HOT MIX ASPHALT SHALL BE USED TO PATCH ASPHALT AND SHALL BE GRADE S OR SX. TACK COAT REQUIRED.
3. CONCRETE SHALL BE USED TO PATCH CONCRETE. MATCH EXISTING THICKNESS.
4. FULL DEPTH ASPHALT SHALL BE THICKNESSES AS SHOWN ABOVE OR ONE (1) INCH GREATER THAN THE EXISTING PAVEMENT THICKNESS, WHICHEVER IS GREATER.
5. PATCH MAY NOT END WITHIN THE WHEEL TRACK OF TRAVEL LANES. UP TO THREE (3) FEET OF ADDITIONAL ASPHALT PATCH WILL BE REQUIRED TO KEEP THE JOINT OUT OF THE WHEEL TRACK.
6. MINIMUM SIZE OF PATCH SHALL BE 3' X 3'.

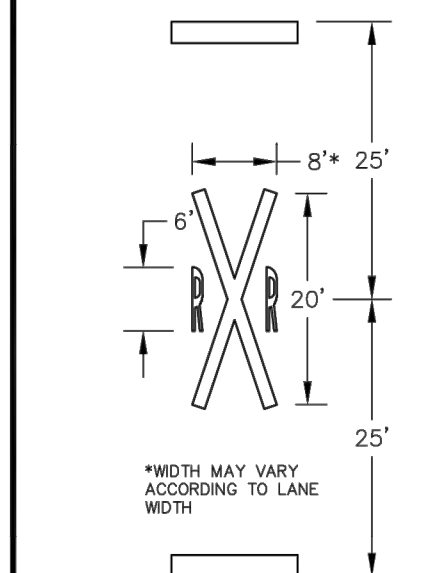


EXISTING STREET PAVEMENT PATCH DETAIL FOR ASPHALT & CONCRETE
DETAIL NO. S-31

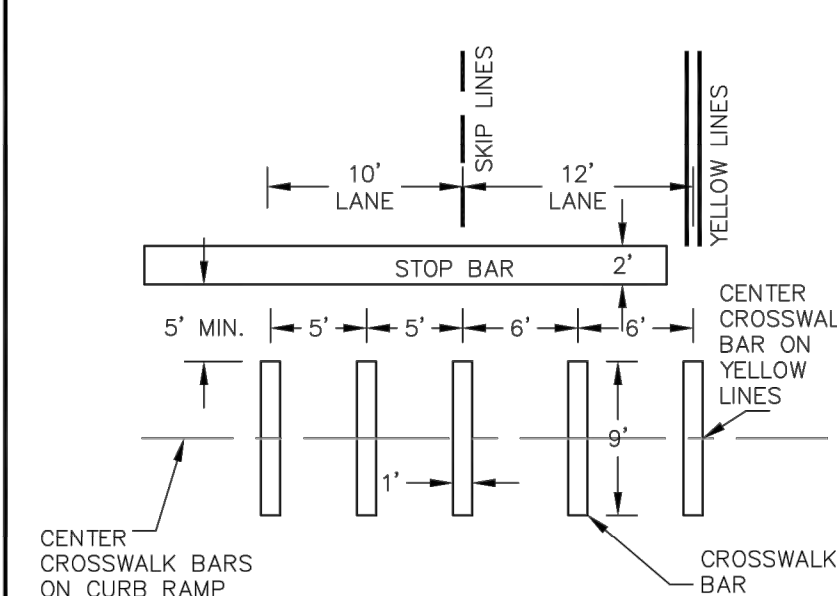
DATE: JULY, 2015 SCALE: N.T.S.



RAILROAD MARKINGS



STOP AND CROSSWALK BARS

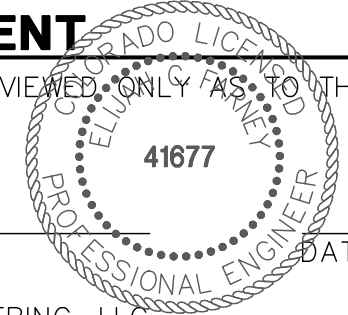


TYPICAL PAVEMENT MARKINGS
SHEET 2 OF 3
DETAIL NO. S-38

DATE: JULY, 2015 SCALE: N.T.S.

ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT.



ELIJAH C. FARNEY, P.E.
COLORADO P.E. 41677
FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
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CITY OF GREELEY-PUBLIC WORKS
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GREELEY, CO 80631
(970) 350-9792

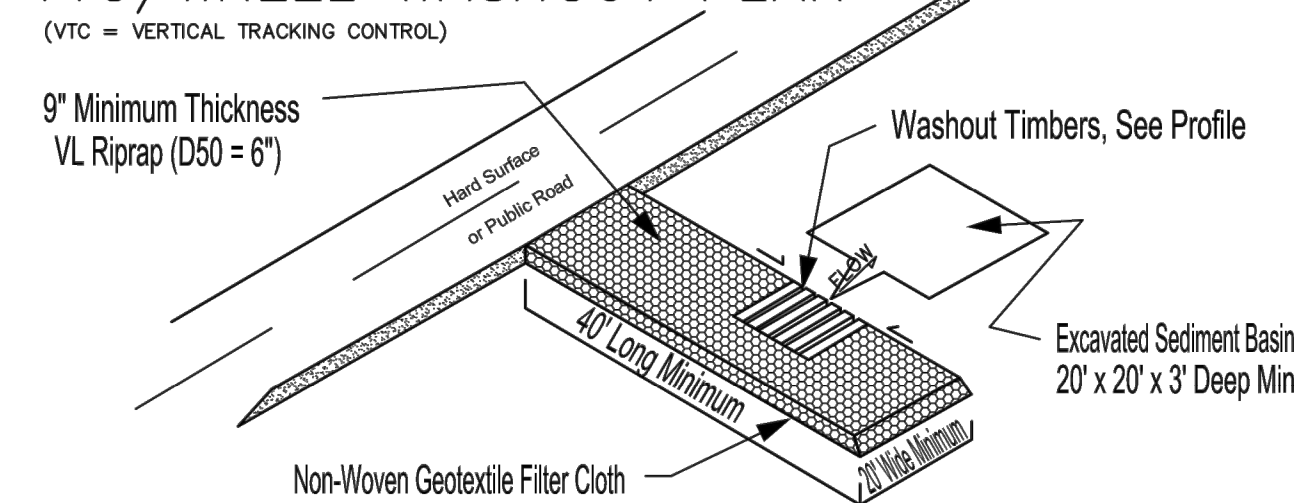
J.R. ENGINEERING
A Western Company
Central 303-740-9888 • Colorado Springs 719-588-2683
Fort Collins 970-491-9888 • www.jrengineering.com

NO.	REVISION	DATE

H-SCALE	N/A	V-SCALE	N/A	DATE	01/31/20	DESIGNED BY	N/A	DRAWN BY	N/A	CHECKED BY

CENTERPLACE TURN LANE IMPROVEMENTS
DETAIL SHEETS

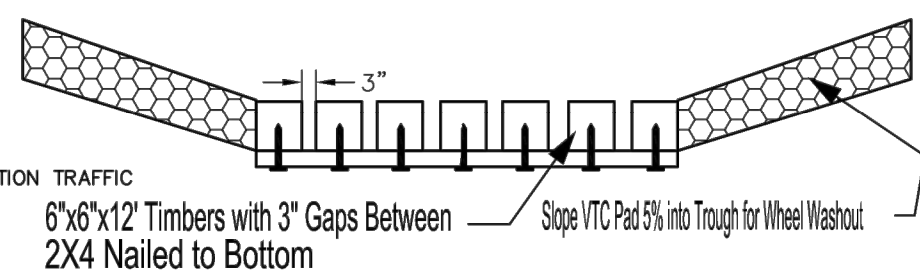
VTC/WHEEL WASHOUT PLAN



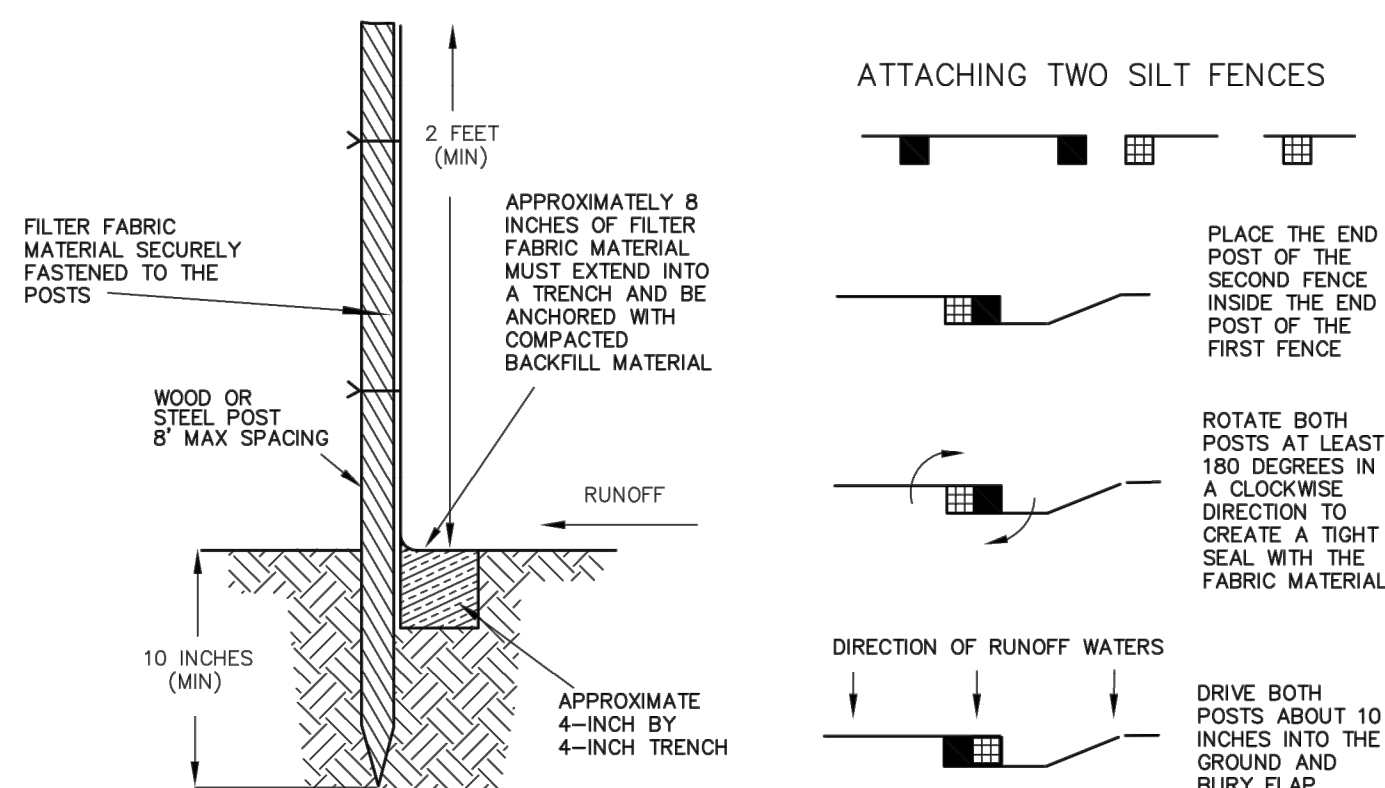
NOTES:

- CONTRACTOR TO SUPPLY WASH WATER
- WASHOUT BASIN TO BE ISOLATED FROM STORM SYSTEM
- VTC PAD RIP RAP TO BE CLEANED OF MUD AFTER RAIN EVENTS
- PUBLIC ROADS TO BE CLEANED OF DEBRIS AT THE END OF EACH DAY'S WORK OR AFTER RAIN EVENTS, AS NEEDED.
- WHEEL WASHOUT TIMBERS REQUIRED ONLY ON EXT. SIDE OF PAD, SECURE TIMBER GAP WITH 2X4 NAILED TO BOTTOM OF TIMBERS EACH END
- VTC PAD TO BE DELINEATED TO ENSURE USE BY CONSTRUCTION TRAFFIC

WASHOUT PROFILE



SILT FENCE INSTALLATION



GENERAL EROSION CONTROL NOTES

CONTRACTOR SHALL INSTALL ALL PERIMETER SEDIMENT AND EROSION CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO, SILT FENCE, INLET PROTECTION, VTC PAD, WHEEL WASHOUT, AND SEDIMENT BASINS BEFORE COMMENCING ANY LAND CLEARING OR GRADING ACTIVITIES. THE CONTRACTOR SHALL LIMIT TOPSOIL STRIPPING OPERATIONS TO WITHIN THE AREAS IN WHICH THEY WILL BE IMMEDIATELY WORKING. THE CONSTRUCTION OF UNDERGROUND UTILITIES SHALL BE INCLUDED AS A LAND DISTURBING ACTIVITY. ALL EXCAVATED MATERIAL SHALL BE PLACED WHERE SEDIMENT WILL ERODE BACK INTO THE TRENCH. ALL TRENCHES SHALL BE BACKFILLED BY THE END OF THE DAYS WORK; BACKFILL SHALL BE PERMANENTLY STABILIZED BEFORE CONSTRUCTION IS CONSIDERED COMPLETE.

ALL DISTURBED AREAS AND SOIL STOCKPILES SHALL BE ADEQUATELY STABILIZED AS DEFINED IN THE URBAN DRAINAGE FLOOD CONTROL DISTRICT (UDFCD), VOLUME 3, CONSTRUCTION BEST MANAGEMENT PRACTICES, SECTION 3.0 "EROSION CONTROL". ALL DISTURBED SOILS AND SOIL STOCKPILES SHALL BE WATERED AND MAINTAINED IN A ROUGHENED CONDITION AT ALL TIMES DURING CONSTRUCTION ACTIVITIES TO PREVENT WIND-CAUSED EROSION. ALL LAND DISTURBING ACTIVITIES WILL BE IMMEDIATELY DISCONTINUED WHEN FUGITIVE DUST IMPACTS ADJACENT PROPERTIES, AS DETERMINED BY CITY INSPECTOR. PERMANENT OR TEMPORARY NATIVE SEED (SEE EROSION CONTROL STRUCTURES - DETAIL 12-2 FOR SEEDING SPECIFICATIONS) SOIL STABILIZATION SHALL BE REQUIRED WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED. IF DISTURBED AREAS OR STOCKPILES ARE NOT BROUGHT TO FINAL GRADE WITHIN 30 DAYS FOLLOWING THE INITIAL DISTURBANCE, OR RE-DISTURBANCE, TEMPORARY STABILIZATION MEASURES SHALL BE REQUIRED. NO SOIL STOCKPILE SHALL EXCEED TEN (10) FEET IN HEIGHT. ALL SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED A SLOPE OF 4V:1H.

ALL STORM SEWER INLETS SHALL BE PROTECTED FROM THE ENTRY OF SEDIMENT-LADEN WATER. HAY BALES ARE NOT RECOGNIZED BY THE CITY OF GREELEY AS AN ACCEPTABLE FORM OF EROSION CONTROL.

INSPECTION OF ALL EROSION AND SEDIMENT CONTROL BMP'S SHALL BE REQUIRED AT THE END OF EACH DAY'S WORK, WITH NECESSARY MAINTENANCE AND REPAIRS PROVIDED IMMEDIATELY. THE CITY OF GREELEY INSPECTOR SHALL, AT THEIR DISCRETION, REQUIRE ANY EROSION CONTROL DEVICES BE REPAIRED, REPLACED, RELOCATED, MODIFIED, OR REMOVED. SUCH REQUESTS SHALL BE COMPLETED WITHIN 5 WORKING DAYS FOLLOWING RECEIPT OF THE WRITTEN REQUEST FROM THE INSPECTOR. ALL PUBLIC RIGHT OF WAY POLLUTED WITH DIRT, MUD, OR DEBRIS SHALL BE SWEEPED CLEAN AT THE END OF EACH DAY'S WORK OR AFTER STORM EVENTS, AS NECESSARY. ALL TEMPORARY AND PERIMETER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AS SOON AS THEIR FUNCTION HAS BEEN FULFILLED. SEDIMENT TRAPS/BASINS SHALL BE CLEANED AND REMOVED, OR STABILIZED, WHEN ALL UPSTREAM AREAS ARE PERMANENTLY STABILIZED. THE SITE CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OFF ALL SILT FROM THE SITE, IF IT IS NOT REUSABLE ON SITE.

THE LANDOWNER SHALL BE HELD RESPONSIBLE FOR THE LONG-TERM STABILITY OF CUT AND FILL SLOPES AND THE SUCCESSFUL ESTABLISHMENT OF PERMANENT VEGETATIVE COVER ON EXPOSED SOIL AS DEFINED IN THE UDFCD, VOLUME 3, CONSTRUCTION BEST MANAGEMENT PRACTICES, SECTION 3.2 "MULCHING".

ALL CONSTRUCTION SUPPLIES OR MATERIALS USED OR STORED ON SITE MUST BE DISPOSED OF PROPERLY AND MUST MEET ALL APPLICABLE MATERIAL SAFETY DATA SHEET CRITERIA.

THE STATE STORMWATER DISCHARGE PERMIT HOLDER MAY BE LIABLE FOR ANY VIOLATIONS RESULTING FROM THE ACTIONS TAKEN BY SITE CONTRACTORS, SUBCONTRACTORS, MAINTENANCE CREWS, ETC.



City of Greeley
Public Works
Stormwater Management

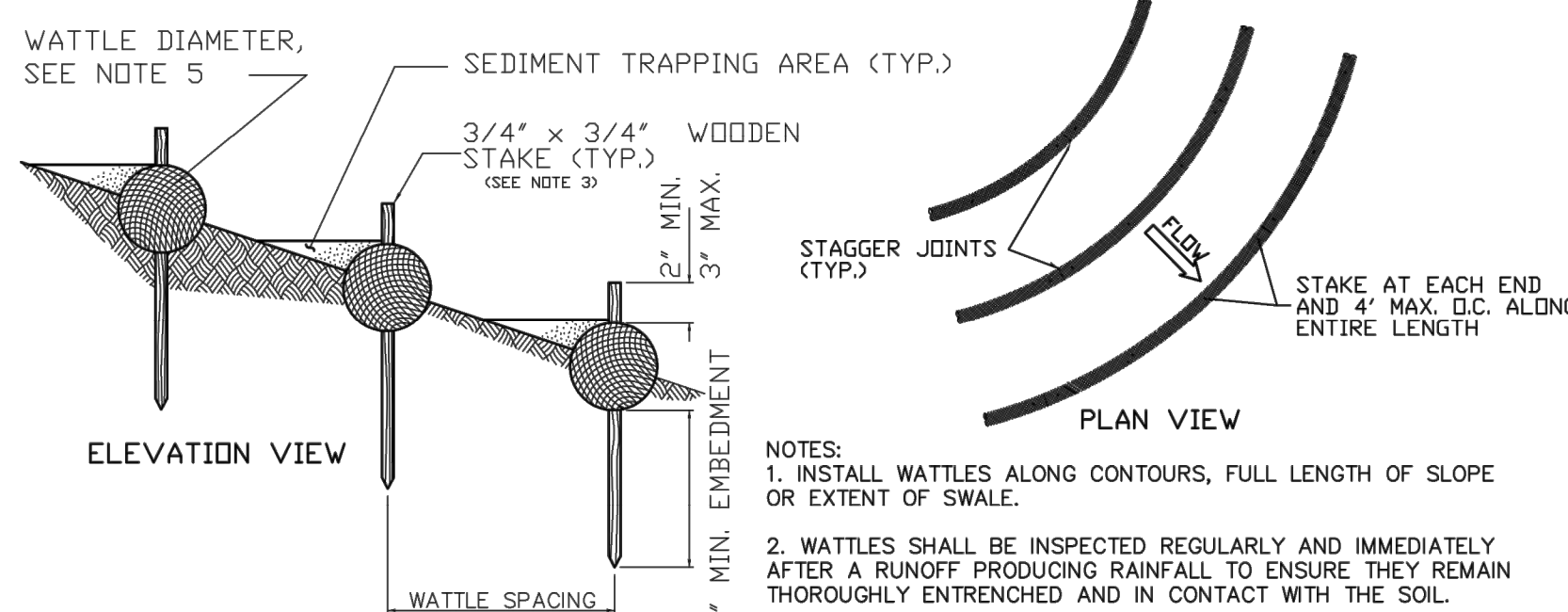
EROSION CONTROL STRUCTURES

DETAIL 12-1

DATE: MARCH 2007

SCALE: N.T.S.

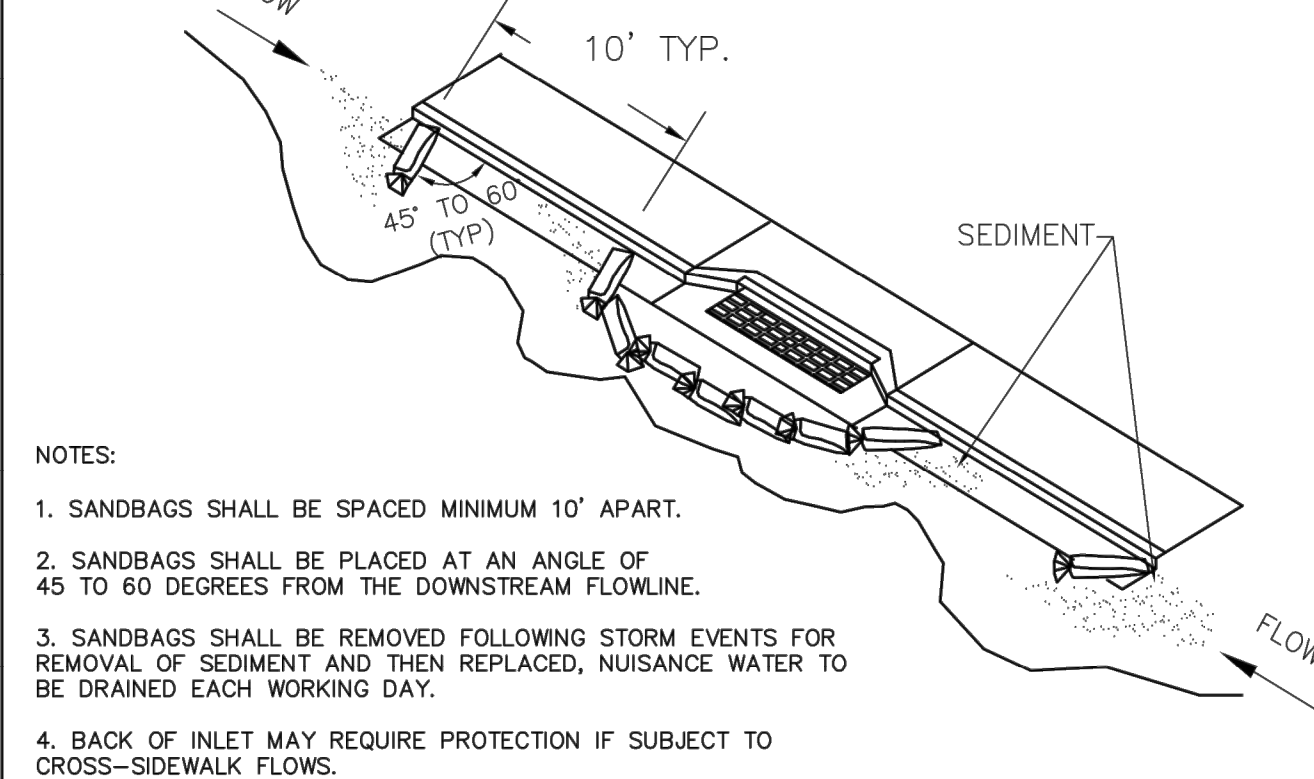
SLOPE AND SWALE PROTECTION



WATTLE SPACING TABLE	
SLOPE TYPE	MAXIMUM SPACING
ALL SWALES	20 FEET
4:1 SLOPE OR >	40 FEET

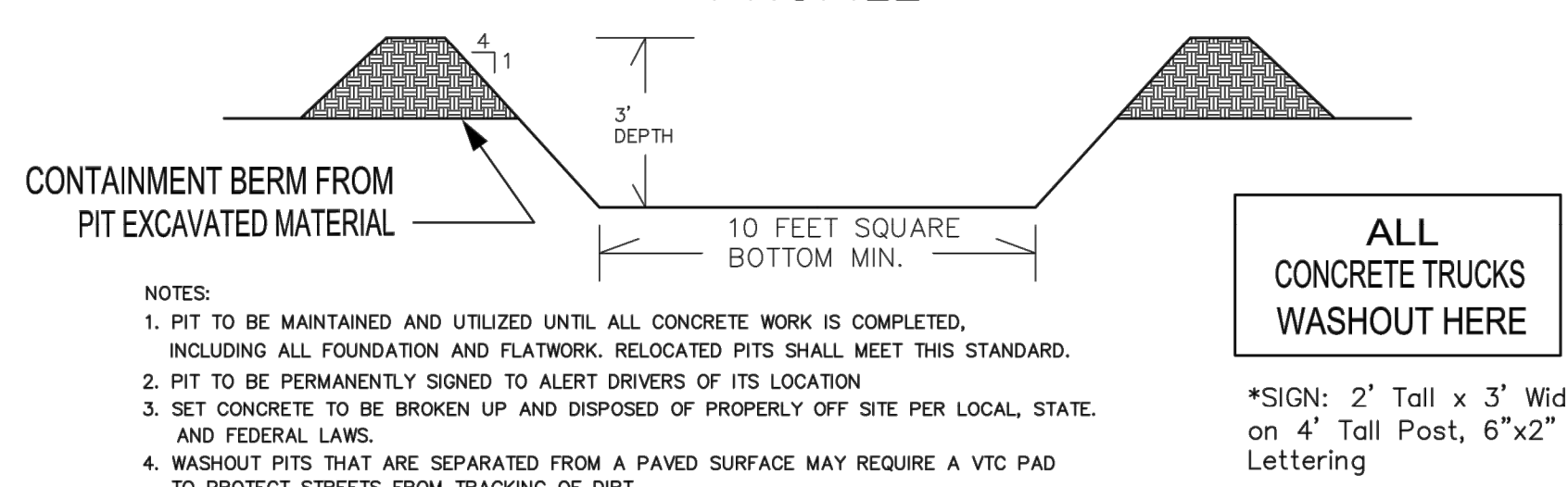
- NOTES:**
- INSTALL WATTLES ALONG CONTOURS, FULL LENGTH OF SLOPE OR EXTENT OF SWALE.
 - WATTLES SHALL BE INSPECTED REGULARLY AND IMMEDIATELY AFTER A RUNOFF PRODUCING RAINFALL TO ENSURE THEY REMAIN THOROUGHLY ENTRENCHED AND IN CONTACT WITH THE SOIL.
 - LIVE STAKES MAY BE USED FOR PERMANENT INSTALLATIONS.
 - INSTALL WATTLES SNUGLY INTO THE TRENCH (4" DEEP). ADJACENT WATTLES TIGHTLY, END TO END, WITHOUT OVERLAPPING THE ENDS.
 - WATTLES TO BE 9" MIN DIAMETER FOR SLOPES, 12" MIN DIAMETER FOR SWALES.

INLET PROTECTION




- NOTES:**
- SANDBAGS SHALL BE SPACED MINIMUM 10' APART.
 - SANDBAGS SHALL BE PLACED AT AN ANGLE OF 45 TO 60 DEGREES FROM THE DOWNSTREAM FLOWLINE.
 - SANDBAGS SHALL BE REMOVED FOLLOWING STORM EVENTS FOR REMOVAL OF SEDIMENT AND THEN REPLACED, NUISANCE WATER TO BE DRAINED EACH WORKING DAY.
 - BACK OF INLET MAY REQUIRE PROTECTION IF SUBJECT TO CROSS-SIDEWALK FLOWS.

CONCRETE TRUCK WASHOUT PIT PROFILE



- NOTES:**
- PIT TO BE MAINTAINED AND UTILIZED UNTIL ALL CONCRETE WORK IS COMPLETED, INCLUDING ALL FOUNDATION AND FLATWORK. RELOCATED PITS SHALL MEET THIS STANDARD.
 - PIT TO BE PERMANENTLY SIGNED TO ALERT DRIVERS OF ITS LOCATION
 - SET CONCRETE TO BE BROKEN UP AND DISPOSED OF PROPERLY OFF SITE PER LOCAL, STATE, AND FEDERAL LAWS.
 - WASHOUT PITS THAT ARE SEPARATED FROM A PAVED SURFACE MAY REQUIRE A VTC PAD TO PROTECT STREETS FROM TRACKING OF DIRT.



City of Greeley
Public Works
Stormwater Management

EROSION CONTROL STRUCTURES

DETAIL 12-2

DATE: MARCH 2007

SCALE: N.T.S.

NOTES

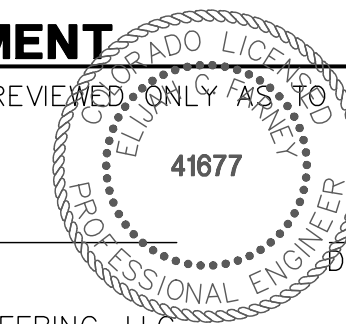
- THESE EROSION & CONTROL DETAILS HAVE BEEN SUBMITTED TO THE CITY OF GREELEY IN FULFILLMENT OF THE CITY CRITERIA. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE NEEDED IF UNFORESEEN PROBLEMS OCCUR OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE LAND OWNER UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED, OR VOIDED. NOTE: THESE EROSION & SEDIMENT CONTROL DETAILS IN AND OF THEMSELVES DO NOT FULFILL THE REQUIREMENTS OF THE COLORADO DEPARTMENT OF PUBLIC HEALTH: STORMWATER CONSTRUCTION PERMIT FOR A STORMWATER MANAGEMENT PLAN(SWMP).



Know what's below.
Call before you dig.

ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT.



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COLORADO P.E. 41677
FOR AND ON BEHALF OF JR ENGINEERING, LLC

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PREPARED FOR
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NO.	REVISION	BY	DATE

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
N/A	N/A	01/31/20	N/A	N/A	N/A

CENTERPLACE TURN LANE IMPROVEMENTS
DETAIL SHEETS