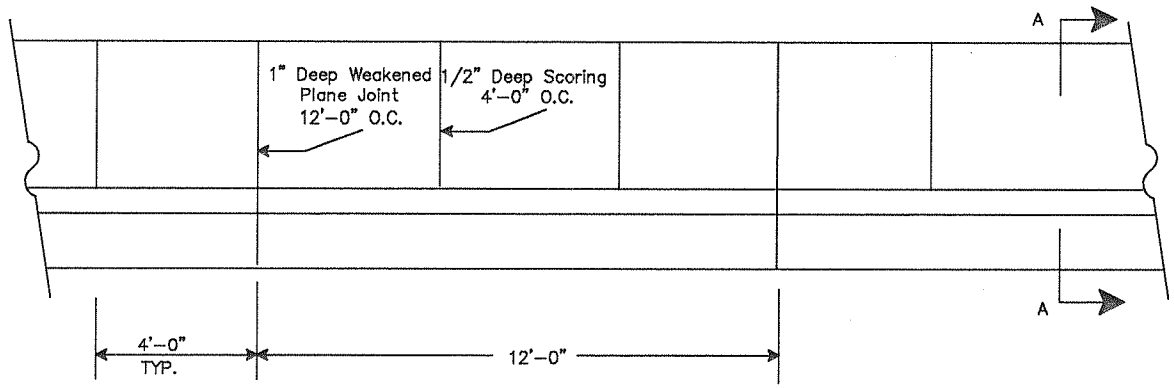
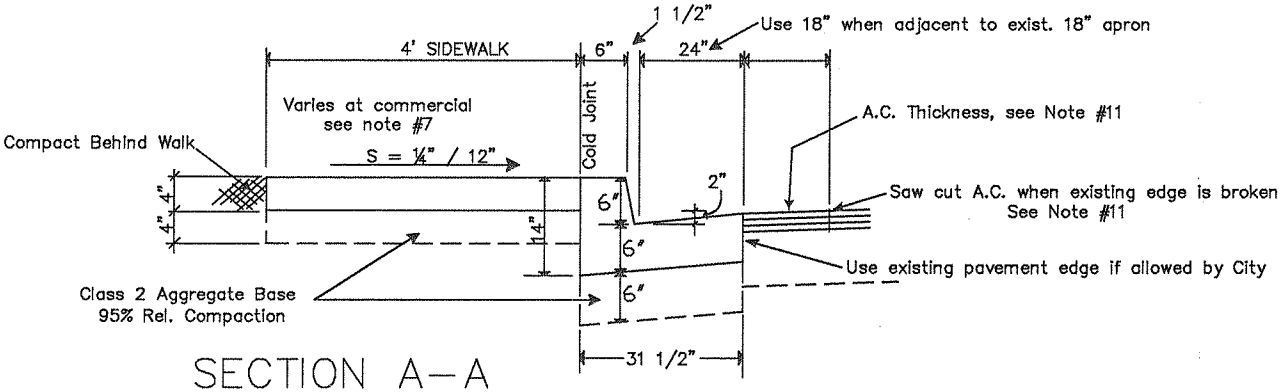
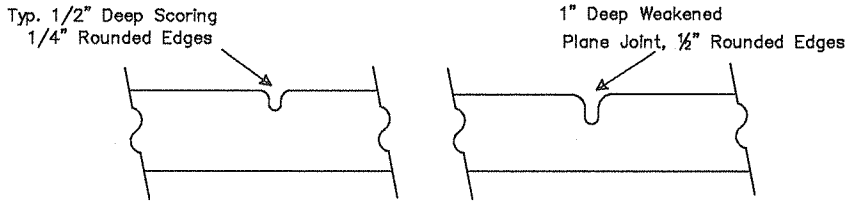




SECTION A-A

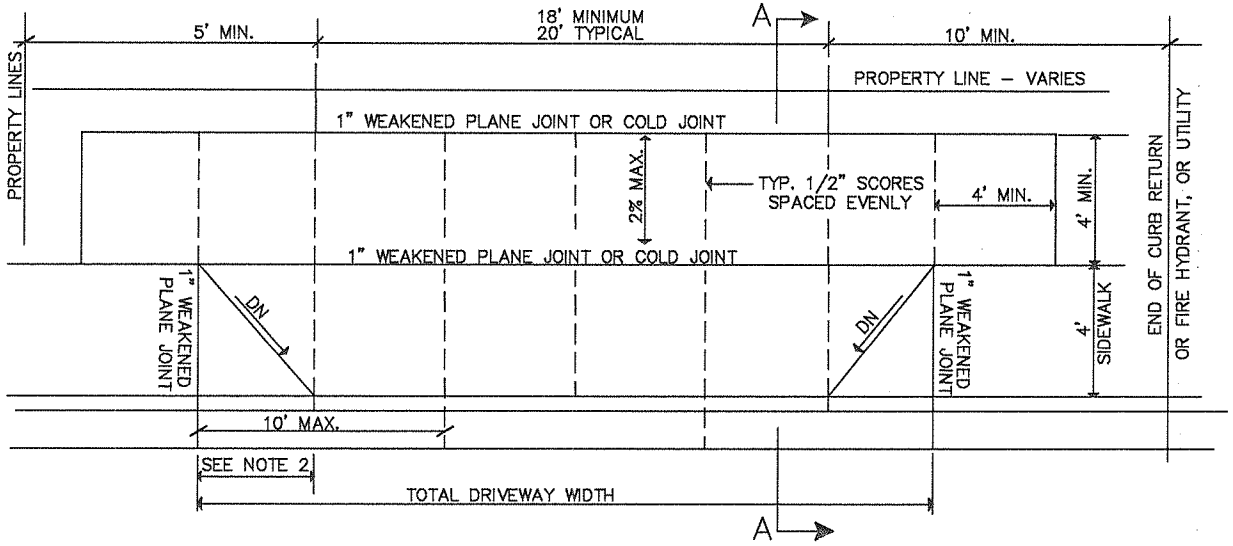


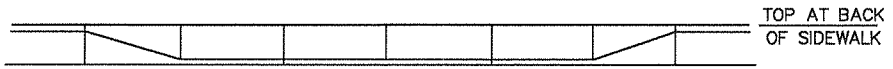
JOINT DETAIL

NOTES

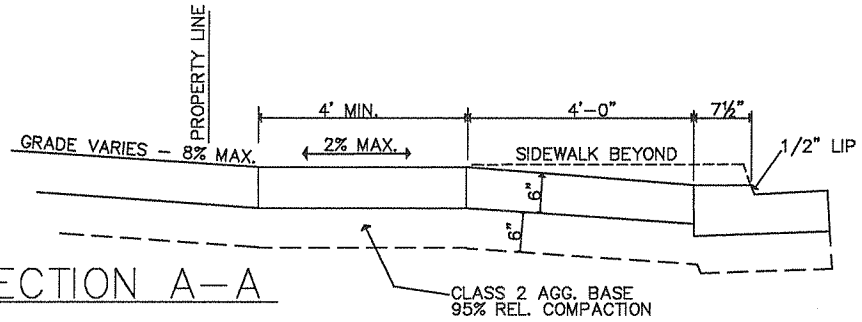
1. Concrete shall be a 4000 psi, 28-day mix with 4.5 – 6% air entrainment.
2. Concrete slump: 4" max. (plasticiser permitted)
3. Concrete shall be maintained at a temperature of not less than 40° F for 72 hours after placement, using blankets if necessary. Concrete shall not be placed on frozen subgrade.
4. Curb face form shall be a full 6". Nominal lumber sizes closest to the required dimension may be used for forming other surfaces.
5. All exposed edges shall have a 1/2" radii. All weakened plane joints shall be hand tooled.
6. Apply light broom finish to surface of walk at right angle with face of curb. Broom finish curb and gutter parallel to street.
7. Sidewalks fronting commercially owned property shall extend to the property line unless otherwise approved by the City.
8. Backfill behind sidewalk or curb level with top surface to prevent drop off hazard.
9. When sidewalk surface between weakened plane joints exceeds 20 sq. ft., the surface shall be scored into rectangles of not less than 12 sq. ft., nor more than 20 sq. ft. with a scoring tool which will leave a rounded edge.
10. Concrete shall be cured according to acceptable building practices and standards.
11. Sawcut existing pavement a minimum of 6" from gutter edge. The pavement grade at the sawcut shall be higher than the gutter lip grade. Pavement sawcut shall be clean, neat, and without ragged edges immediately prior to paving. Paving shall conform to City Standard Detail S-4.
12. Monolithic curb, gutter, and sidewalk pouring allowed subject to prior arrangement with and approval of layout and methods by the City. See Detail S-22.

REVISIONS	SIDEWALK CURB & GUTTER	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-1
	RESOLUTION 13-4932	





ELEVATION AT CURB

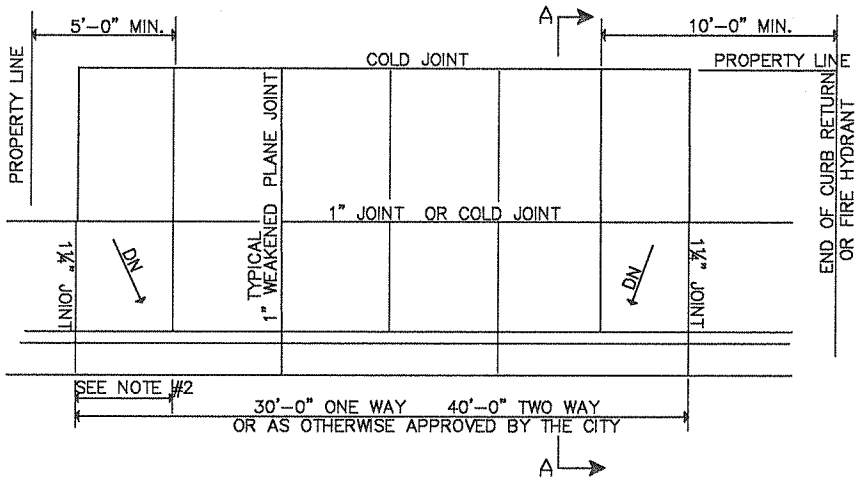


SECTION A–A

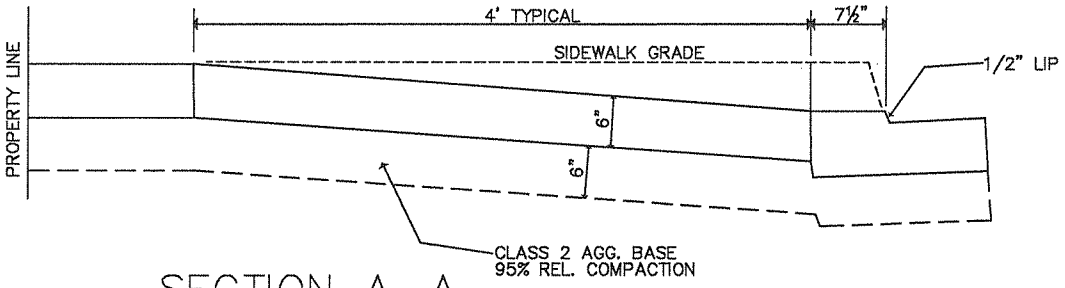
NOTES

1. The requirements listed in notes 1–6, 10 & 11 on City Standard Detail S–1 shall apply to driveway construction. Joint detail of City Standard Detail S–1 shall apply to all driveway joints. Curb shape and all dimensions shall comply with City Standard Detail S–1.
2. Driveway transition wing from sidewalk grade shall be 3' wide where a parking lane is adjacent to curb and 6' wide where a travel lane is adjacent to curb.
3. All joints shall be placed as directed by the City when driveway width differs from this standard.
4. Water meters or other obstructions shall not be located in driveways.

REVISIONS	RESIDENTIAL DRIVEWAY	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S–2
	RESOLUTION 13–4932	



ELEVATION AT CURB

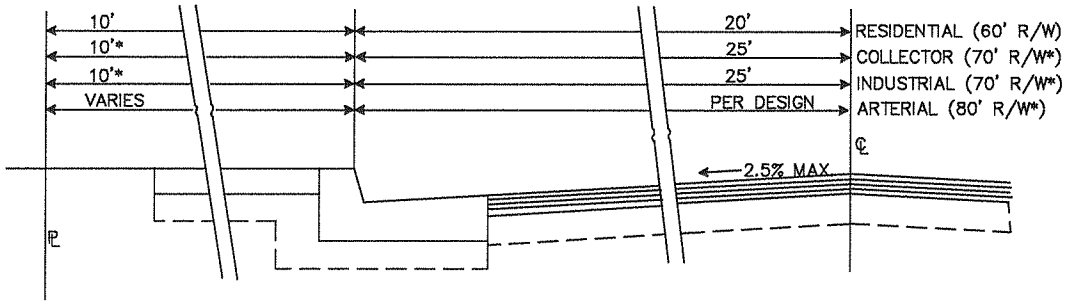


SECTION A-A

NOTES

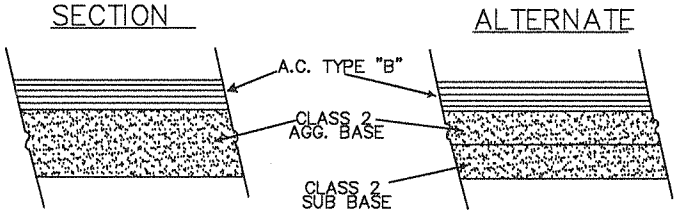
1. THE REQUIREMENTS LISTED IN NOTES 1-6, 10 & 11 ON CITY STANDARD DETAIL S-1 SHALL APPLY TO DRIVEWAY CONSTRUCTION. JOINT DETAIL OF CITY STANDARD DETAIL S-1 SHALL APPLY TO ALL DRIVEWAY JOINTS. CURB SHAPE AND DIMENSIONS SHALL COMPLY WITH CITY STANDARD DETAIL S-1.
2. DRIVEWAY TRANSITION WING FROM SIDEWALK GRADE SHALL BE 3 FEET WIDE WHERE A PARKING LANE IS ADJACENT TO CURB AND 6 FEET WIDE WHERE A TRAVEL LANE IS ADJACENT TO CURB.
3. AREA BETWEEN WEAKENED PLANE JOINTS SHALL NOT EXCEED 20 SQ. FT. OR BE LESS THAN 12 SQ. FT. JOINT EDGES BE TOOLED WITH A ½" RADII.
4. WATER METERS OR OTHER OBSTRUCTIONS SHALL NOT BE LOCATED IN DRIVEWAYS.

REVISIONS	COMMERCIAL DRIVEWAY	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-3
	RESOLUTION 13-4932	



ROADWAY CLASS	DISTANCE CURB TO CURB	℄ ELEVATION RELATIVE TO TOP 6" CURB	STANDARD SECTION		ALTERNATE SECTION WITH APPROVAL		
			AC	CL 2 AB	AC	CL 2 AB	CL 2 AS
RESIDENTIAL	40'–0"	0.00'	3.0"	6"	3.0"	4"	4"
COLLECTOR	50'–0"	0.125'	3.0"	9"	3.0"	8"	4"
INDUSTRIAL	50'–0"	0.125'	4.0"	12"	4.0"	10"	8"
ARTERIAL	PER DESIGN	0.250'	4.0"	12"	4.0"	10"	8"
ALLEY	20'–0"	NA	3.0"	6"	3.0"	4"	4"

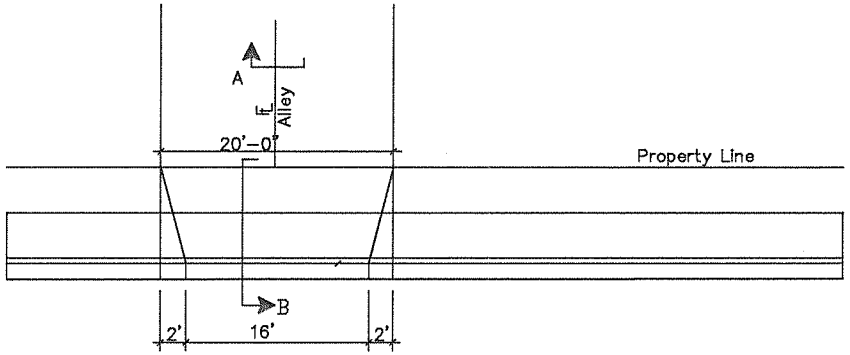
* UNLESS OTHERWISE APPROVED

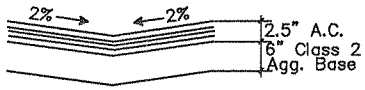


NOTES

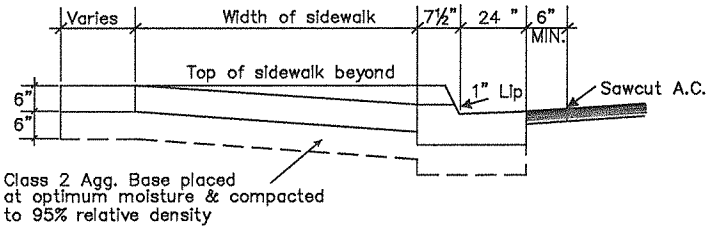
1. ASPHALT CONCRETE (A.C.) SHALL CONFORM TO THE PROVISIONS IN SECTION 39 OF THE CALIFORNIA STANDARD SPECIFICATIONS. AGGREGATE FOR A.C. SHALL CONFORM TO THE ½" MAXIMUM, MEDIUM GRADING. PAVING SHALL BE PG 64–28. PRIME COAT SHALL BE MC–70 AND SPREAD AT THE RATE OF 0.25 GALLONS PER SQUARE YARD.
2. AGGREGATE BASE SHALL CONFORM TO THE PROVISIONS IN SECTION 26 OF THE CALIFORNIA STANDARD SPECIFICATIONS.
3. AGGREGATE SUB BASE SHALL CONFORM TO THE PROVISIONS IN SECTION 25 OF THE CALIFORNIA STANDARD SPECIFICATIONS.
4. ALL EARTH WORK SHALL CONFORM TO SECTION 19–5 OF THE CALIFORNIA STANDARD SPEC–IFICATIONS.
5. DESIGN THICKNESS BASED UPON A MINIMUM "R" VALUE OF EXISTING GRADE = 40. SOILS BELOW R=40 MAY REQUIRE SPECIAL DESIGN PRACTICES, EITHER ADDITIONAL SUBBASE COURSES OR FABRICS.
6. SS–1 TACK COAT SHALL BE APPLIED AGAINST EXISTING AC AND CONCRETE SURFACES IN ACCORDANCE WITH SECTION 39–4.02.
7. AN EMULSIFIED ASPHALT FOG SEAL COAT SHALL BE APPLIED AFTER COMPLETION AND ACCEPTANCE OF THE AC IN ACCORDANCE WITH SECTION 37 OF THE CALIFORNIA STANDARD SPECIFICATIONS.

REVISIONS	STREET SECTIONS	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S–4
	RESOLUTION 13–4932	





A -- FLOW LINE SECTION

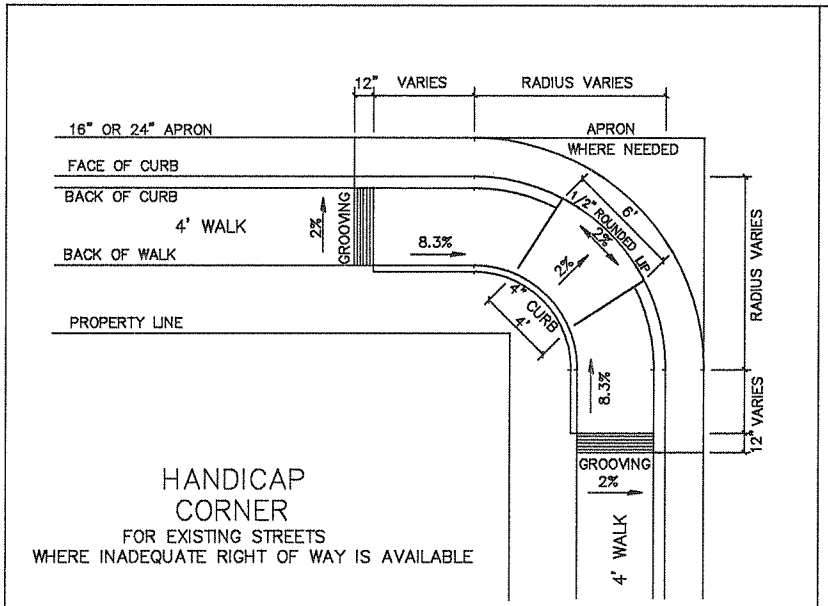


B -- DRIVEWAY SECTION

NOTES

1. Asphalt, aggregate base and compaction shall conform to the requirements shown on Standard Detail S-4.
2. Driveway section shall conform to the requirements shown on City Standard Detail S-3.
3. Location of the drainage flow line will vary and shall be directed by the City Engineer.

REVISIONS	ALLEY DETAILS	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-5
	RESOLUTION 13-4932	



NOTES

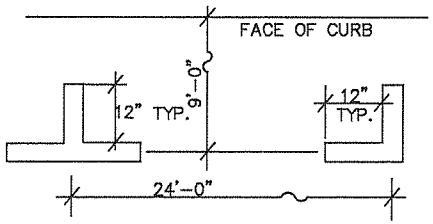
1. RAMP SHALL HAVE A 12" WIDE BORDER WITH ¼" GROOVES APPROXIMATELY 3/4" O.C.
2. THE SURFACE OF THE RAMP SHALL HAVE A TRANSVERSE BROOMED TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK.
3. GROOVES ARE TO BE HAND TOOLED, NOT SAW CUT.
4. TRANSITION FROM RAMP TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
5. CONCRETE FORMING AND FINISHING SHALL CONFORM TO THE PROVISIONS OF CITY STANDARD DETAIL S-1.

NOTE: PROPER LAYOUT AND CONSTRUCTION OF HANDICAP RAMPS REQUIRES EXTREME CARE AND ADVANCE PLANNING. PRIOR TO FORMING, CONSULT WITH CITY TO INSURE THE MOST APPROPRIATE DESIGN FOR THE SPECIFIC SITUATION.

RECOMMEND USING LATEST CAL-TRANS DETAILS WHEREVER POSSIBLE

REVISIONS	CURB RAMPS
	CITY OF SUSANVILLE
	APPROVED MARCH 6, 2013
	RESOLUTION 13-4932

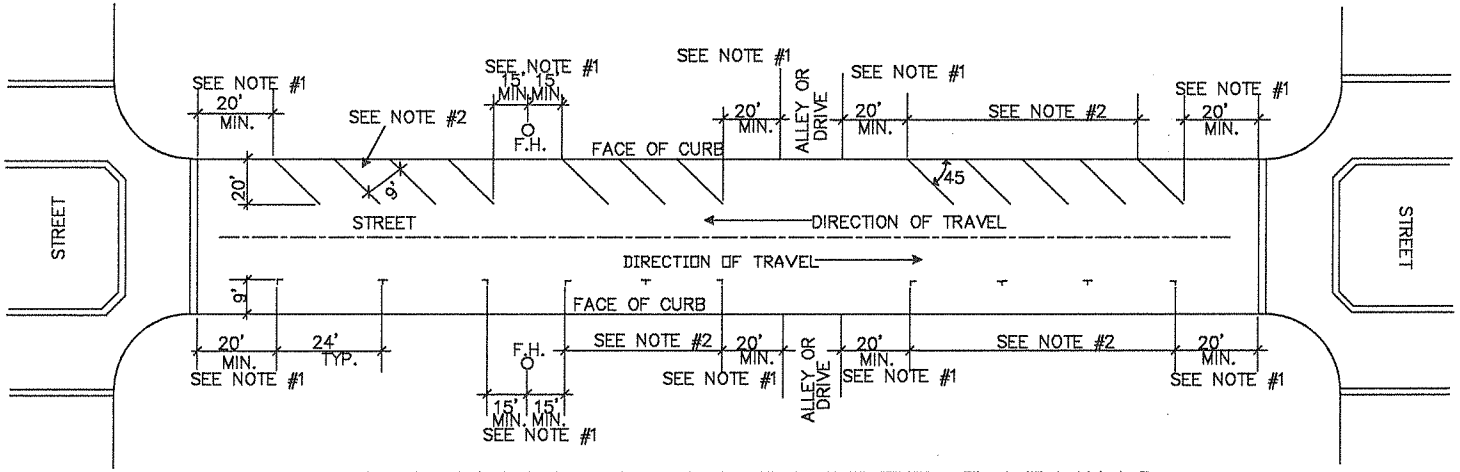
S-6



PARALLEL PARKING PAINT DETAIL

NOTES

1. PAINT CURB RED FOR DISTANCE SHOWN.
2. NUMBER OF SPACES TO BE DETERMINED BY AVAILABLE LENGTH.
3. SEE CURRENT ADA STANDARDS FOR HANDICAP PARKING SPACES.
4. ALL PARKING LINES AND STRIPES SHALL BE 4" WIDE AND PAINTED WHITE, EXCEPT HANDICAP STALLS SHALL BE PAINTED BLUE.
5. IF REQUIRED, THE CITY ENGINEER WILL DIRECT THE PAINTING OF YELLOW OR GREEN CURBS.
6. F.H. = FIRE HYDRANT



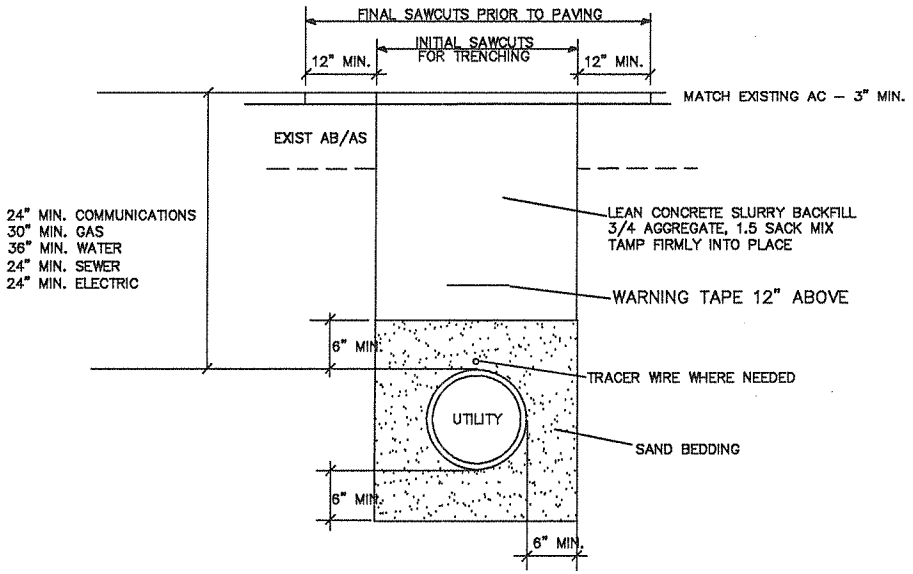
PARALLEL & 45 DEGREE PARKING

REVISIONS	STREET PARKING
	CITY OF SUSANVILLE
	APPROVED MARCH 6, 2013
	RESOLUTION 13-4932

S-7

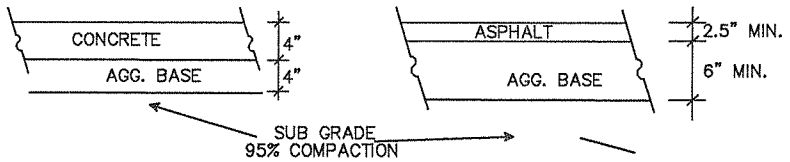
NOTES

1. TO BE USED FOR UTILITY CROSSINGS OF EXISTING STREETS.
2. LAYOUT OF JOINT TRENCH SITUATIONS MUST BE APPROVED BY CITY.

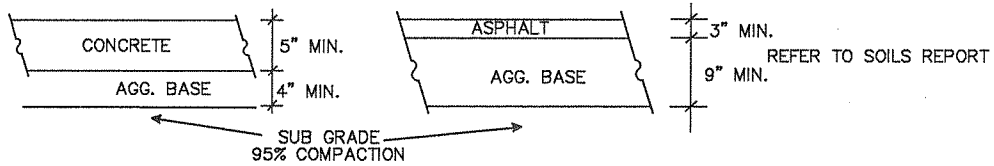


REVISIONS	STREET TRENCH CUT	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S–8
	RESOLUTION 13–4932 DATE	

STANDARD PARKING LOT SECTION



INDUSTRIAL PARKING LOT SECTION



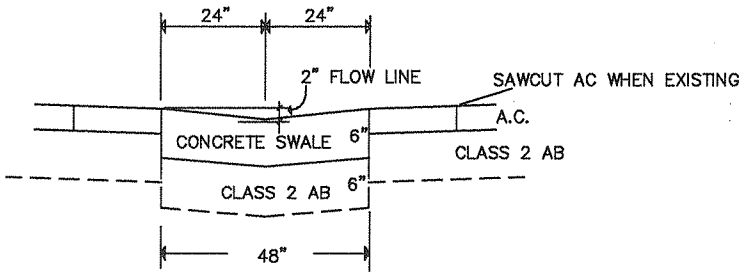
PARKING LAYOUT

REFER TO CITY CODE, CHAPTER 17.100, FIGURES 17.100.150 (A) & (B)
PROVIDE NET PLANTER AREAS PER CITY CODE, CHAPTER 17.96.040

NOTES

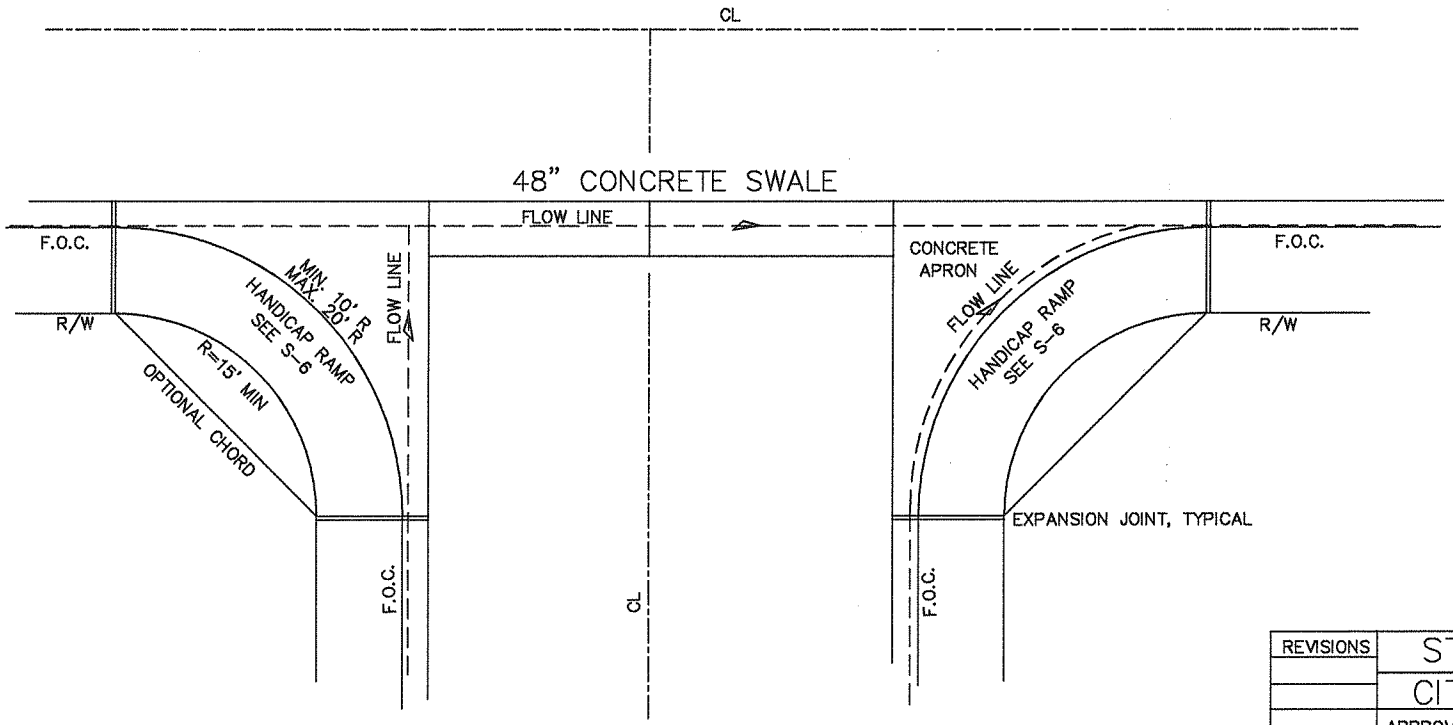
1. ASPHALT CONCRETE, AGGREGATE BASE AND COMPACTION SHALL CONFORM TO CITY STANDARD DETAIL S-4.
2. CONCRETE SHALL BE A 4000 psi, 7-day MIX DESIGN WITH A 5% AIR ENTRAINMENT AND SHALL HAVE A 2-4 INCH SLUMP.
3. CONCRETE JOINTS SHALL CONFORM TO CITY STANDARD DETAIL S-1 AND SHALL BE SPACED A MINIMUM OF 15' O.C. APPLY A LIGHT BROOM FINISH TO CONCRETE SURFACES. ALL EDGES SHALL HAVE A ½" RADIUS.
4. PARKING LOT LAYOUT PLANS SHALL BE SUBMITTED TO THE CITY FOR APPROVAL AND SHALL SHOW DRAINAGE, PARKING LOT DIMENSIONS, AND MATERIALS TO BE USED.
5. ALL PARKING LINES AND STRIPES SHALL BE 4" WIDE AND PAINTED WHITE. PARALLEL PARKING STRIPES SHALL CONFORM TO CITY STANDARD DETAIL S-7.
6. HANDICAP PARKING SHALL BE PROVIDED PER UBC STANDARDS.
7. LAYOUTS & DESIGN REQUIREMENTS ARE SET FORTH IN CITY CODE, CHAPTER 17.100.
8. LANDSCAPING STRIPS SHALL BE CREATED PUSUANT TO CITY CODE, CHAPTER 17.96.040, AND SHALL BE NET OF ANY VEHICLE OVERHANG.
9. PAVEMENT MOUNTED WHEEL STOPS NOT RECOMMENDED DUE TO SNOW PLOWING PROBLEMS. USE WIDENED WALKS OR PLANTERS.
10. DEPTHS OF STALLS AGAINST PLANTERS & SIDEWALKS MAY BE REDUCED UP TO 2 FEET IF ADDITIONAL NET REQUIRED SIDEWALK AND PLANTER WIDTHS ARE MAINTAINED TO COMPENSATE.

REVISIONS	ON SITE PARKING	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-9
	RESOLUTION 13-4932	

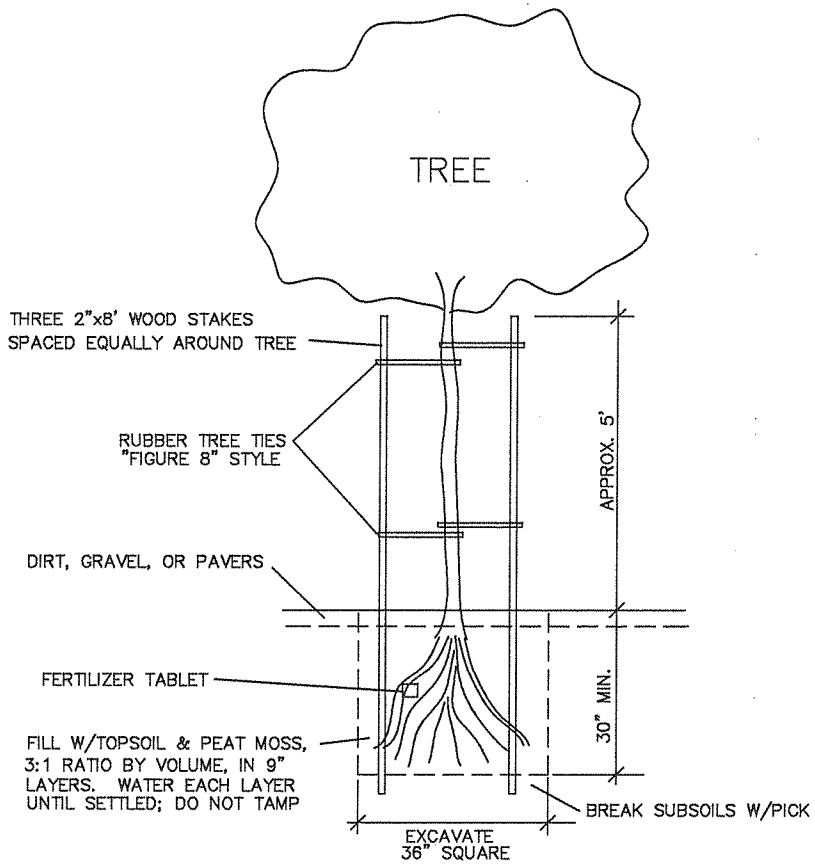


NOTES

1. USE CITY STANDARDS FOR ALL CONCRETE WORK.



REVISIONS	STREET INTERSECTION	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-10
	RESOLUTION 13-4932	



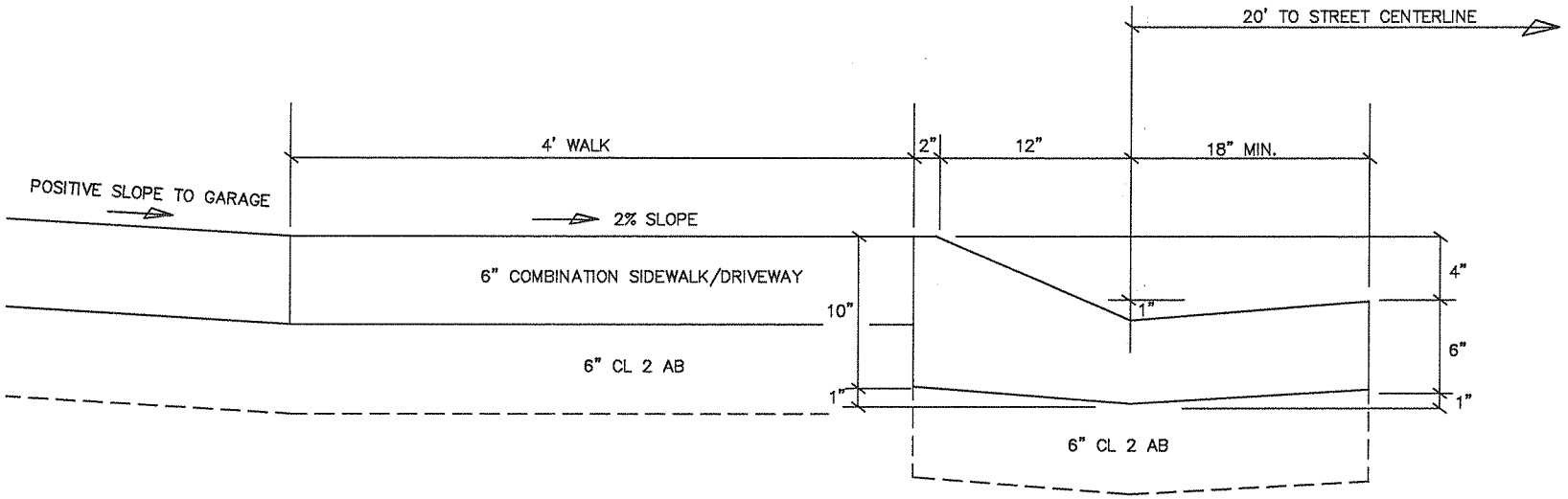
NOTES

1. IF TREE IS PLANTED ON A GRADE OF 8% OR GREATER, CONSTRUCT A BERM AROUND TREE, 36" MIN. DIAMETER, WITH A LEVEL RIDGE 4" OR MORE HIGHER THAN UPHILL SIDE OF PLANTER.
2. TREES SHALL BE PLACED A MINIMUM OF 30' APART.
3. TREE VARIETY SHALL BE SELECTED FROM THE CITY APPROVED SPECIES LIST
4. TREE SHALL BE AT LEAST 8 FT HIGH, AND SHALL BE AT LEAST 1 1/4" INCHES IN DIAMETER 6" ABOVE THE GROUND.

REVISIONS	TREE PLANTING	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-11
	RESOLUTION 13-4932	

NOTES

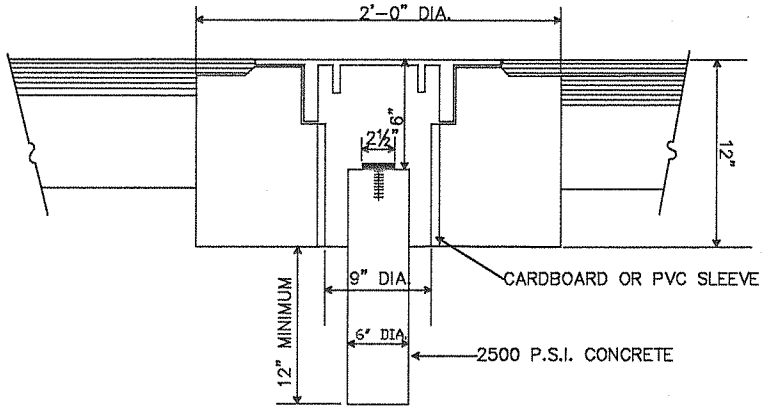
1. CONCRETE SHALL CONFORM TO CITY STANDARDS FOR STANDARD VERTICAL CURB & GUTTER. REFER TO DETAIL S-1.



SPECIAL APPLICATION ONLY, SUBJECT TO CITY APPROVAL

MINOR RESIDENTIAL STREETS ONLY

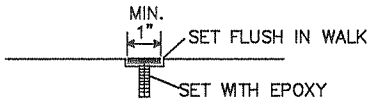
REVISIONS	V-GUTTER & WALK	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-12
	RESOLUTION 13-4932	



STREET MONUMENT CROSS SECTION

NOTES

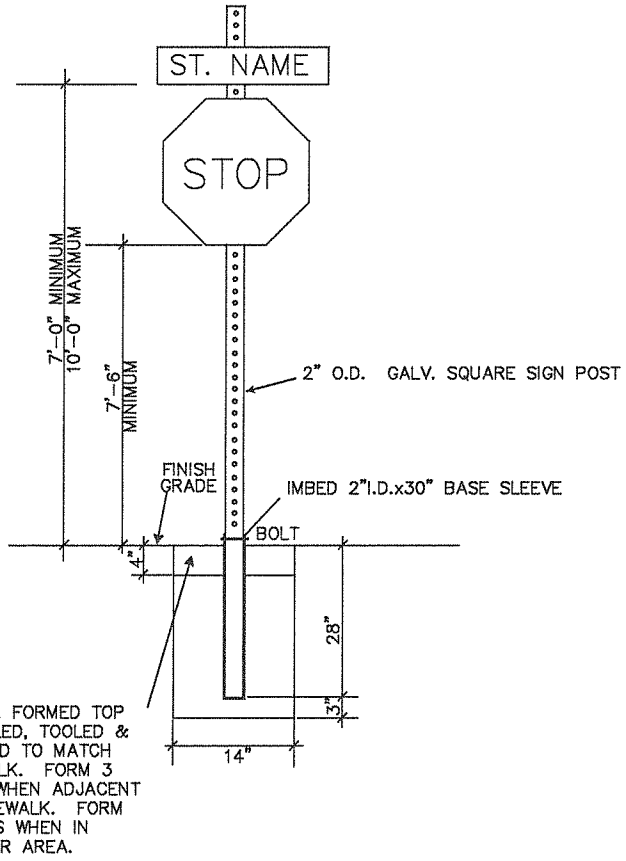
1. MONUMENT FRAME AND COVER SHALL BE CAST IRON TRAFFIC VALVE BOX OR APPROVED EQUAL.
2. SURVEY MARKER SHALL BE A 2½" BRASS DISC.
3. THE R.E. OR L.S. NUMBER MUST APPEAR ON MONUMENT MARKER.
4. MARK REFERENCE WITH A "+" OR "."
5. CONCRETE SHALL CONFORM TO CITY STANDARD DETAIL S-1.
6. PLACEMENT SHALL BE AS DIRECTED BY CITY ENGINEER AFTER CONSULTATION WITH SURVEYOR.

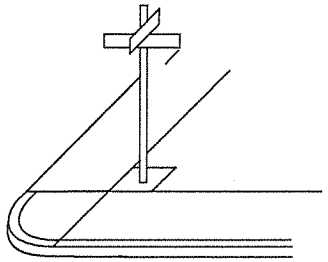


OPTIONAL SIDEWALK MONUMENT

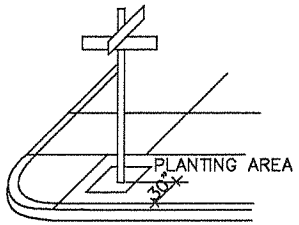
USE BERNSTEN BP-1 OR EQUAL: "SURVEY MARK"

REVISIONS	SURVEY MONUMENT	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-13
	RESOLUTION 13-4932	

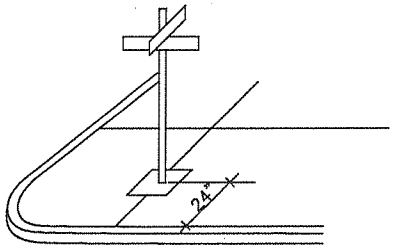




LOCATION BY 4.5' SIDEWALK



LOCATION IN PLANTING STRIP



LOCATION IN FULL WIDTH SIDEWALK

NOTES

1. SIGN LOCATION TO BE DETERMINED BY THE CITY.
2. NAME PLATE LETTERING SHALL CONFORM TO SECTION 2D-39 OF THE UNIFORM TRAFFIC CONTROL DEVICES.
3. STOP SIGNS SHALL CONFORM TO SECTION 2B-4 AND 2B-6 OF THE UNIFORM TRAFFIC CONTROL DEVICES. THE 30" X 30" STANDARD SIZE WILL BE USED IN ALL COMMERCIAL AND INDUSTRIAL AREAS AND ON ALL ARTERIAL STREETS. THE 24" X 24" SIZE MAY BE USED IN RESIDENTIAL AREAS WITH THE APPROVAL OF THE CITY.
4. AT MULTIPLE STOP INTERSECTIONS, A SUPPLEMENTARY PLATE CONFORMING TO R1-3 OR R1-4 OF THE UNIFORM TRAFFIC CONTROL DEVICES MAY BE REQUIRED.
5. CONCRETE SHALL BE SAWCUT IF INSTALLATION IS REQUIRED IN AN EXISTING SIDEWALK. CONCRETE SHALL CONFORM TO CITY STANDARD DETAIL S-1.
6. WHEN PLACED IN SIDEWALK, POLES SHALL BE SET PRIOR TO CONCRETE POUR.

REVISIONS	STREET SIGNS	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-14
	RESOLUTION 13-4932	

GENERAL EROSION CONTROL MEASURES TO BE APPLIED TO ALL PROJECTS NOT TO REPLACE SWPPP REQUIREMENTS FOR PROJECTS ONE ACRE AND ABOVE

NORTH LAHONTAN BASIN PROJECT GUIDELINES FOR EROSION CONTROL
(Revised August, 1988)

(a) Surplus or waste material should not be placed in drainage ways, or within the 100-year flood plain of any surface water.
(b) All loose piles of soil, silt, clay, sand, debris, or other earthen materials should be protected in a reasonable manner to prevent the discharge of these materials to waters of the State.
(c) After completion of a construction project, all surplus or waste earthen materials should be removed from the site and deposited in an approved disposal location or stabilized on site.
(d) De-watering should be done in a manner so as to eliminate the discharge of earthen materials from the site.
(e) All disturbed areas should be stabilized by appropriate soil stabilization measures by October 15th of each year.
(f) All worked performed between October 15th and May 1st of each year should be conducted in such a manner that the project can be winterized (all soils stabilized to prevent runoff) within 48 hours, if necessary.
(g) Where possible, existing drainage patterns should not be significantly modified.
(h) Drainage swales disturbed by construction activities should be stabilized by appropriate soil stabilization measures to prevent erosion.
(i) All non-construction areas should be protected by fencing, or other means, to prevent unnecessary disturbance.
(j) During construction, temporary gravel, hay bale, earthen, or sand bag dikes and/or non-woven filter fabric fences should be used, as necessary, to prevent discharge of earthen materials from the site during periods of precipitation or runoff.
(k) Impervious areas should be constructed with infiltration trenches along the down-gradient sides to infiltrate the increase in runoff resulting from the new impervious areas.
(l) Infiltration trenches, or similar protection facilities, should be constructed on the down-gradient side of all structural drip lines.
(m) Re-vegetated areas should be continually maintained in order to assure adequate growth and root development. Erosion control facilities should be installed with a routine maintenance and inspection program to provide continued integrity of erosion control facilities.
(n) Waste drainage waters in excess of that which can be adequately retained on the property should be collected before such waters hace a chance to degrade, and should be treated, if necessary, before discharge from the property.
(o) Where construction activities involve the crossing and/or alteration of a stream channel, such activities require a prior written agreement with the California Department of Fish and Game and should be timed to occur during the period in which stream flow is expected to be lowest for the year.

CITY ENGINEER'S CERTIFICATE FOR REVIEW OF PLANS BY OTHERS

MODIFY TO FIT SPECIFIC APPLICATION

I, THE UNDERSIGNED CITY ENGINEER, HERBY CERTIFY THAT I HAVE REVIEWED THESE PLANS FOR CONFORMANCE WITH ADOPTED CITY PUBLIC WORKS CONSTRUCTION STANDARDS AND PROJECT SPECIFIC CONDITIONS OF APPROVAL. NO GUARANTEE IS MADE AS TO THE COMPLETENESS OR ACCURACY OF THESE PLANS; THE BUILDER IS REQUIRED TO FOLLOW ALL APPLICABLE REGULATIONS AND TO PROVIDE A COMPLETED PROJECT IN CONFORMANCE WITH ALL CODES, STANDARDS AND CONDITIONS IN A WORKMANLIKE MANNER, WHETHER SPECIFICALLY SHOWN OR NOT. (As necessary add "THE FOLLOWING PORTIONS OF THESE PLANS HAVE NOT BEEN REVIEWED: Landscaping and irrigation plans past the point of connection with the domestic water system. Building construction plans within building envelope, typically within 5 feet of the foundation footprint. Etc.")

AC PAVING TESTING STANDARDS FOR STREETS AND PARKING AREAS PROPOSED TO BE DEDICATED TO AND ACCEPTED BY THE CITY OF SUSANVILLE

All testing expenses shall be borne by the contractor, developer, and/or owner of the work proposed for acceptance.

One coring for thickness and compaction testing shall be performed for each 5000 square feet or fraction thereof of paved area, with no less than two per day of placement.

Compaction testing of cores shall be based upon the standard, 50-blow, "Marshall Method" per ASTM D-6926.

Minimum compaction requirement for unconditional acceptance is 95% for all cores tested.

If any single core test falls below 95% but over 94.5%, the work may be acceptable if the placed thickness is at least 20% greater than the specified thickness, assuming all other paving parameters are satisfactory. Alternatively in this case, the City may accept the work upon receipt of a non-refundable penalty payment of $0.30 per square foot of the entire job, reflecting anticipated reduced pavement life, again assuming all other paving parameters are satisfactory. The City has sole discretion to either accept under these conditions, or to require further remediation as set forth below.

If any core test indicates less than the required thickness, or less than 94.5% compaction, the City shall require remediation. Remediation may include removal and replacement of some or all of the work, overlayment of some or all of the work, or any other measures which the City may require prior to acceptance.

REVISIONS	CERTIFICATES & NOTES	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-15
	RESOLUTION 13-4932	

GENERAL CONSTRUCTION PROCEDURES:

A preconstruction meeting shall be held prior to any construction activities, to be attended by the developer, engineer or architect of record, prime contractor and appropriate subcontractors, utility representatives (sewer, water, gas, power, phone, catv), and City Public Works staff. The meeting shall address construction scheduling, permitting, inspection, testing, and supervision issues.

Construction practices will be in accordance with California Department of Transportation (Caltrans) Standard Specifications for Construction of Local Streets and Roads, unless provided or allowed otherwise by City standards.

Contractor shall contact underground alert, 800–227–2600, prior to any excavation.

Contractors must obtain encroachment permits for all work within existing City streets, including payment of security deposits.

Posting on site of SWPPP for sites over one–acre (or compliance with City erosion/storm water requirements for sites under one–acre). Measures to be in place prior to construction. Appropriate dust control measures shall be in place.

Barricades and construction signing to protect public shall be in place.

Sanitary facilities shall be available.

Contractor is responsible for scheduling and coordinating all testing and inspections with City and other entities. Costs of all testing services will be borne by the developer and/or contractor.

Contractors are advised to obtain current copies of City standards (no charge) for work to be done in City streets, to be used in addition to project plans.

City inspection services are cursory in nature only; if final inspections reveal problems, omissions, or substandard work, the contractor shall be responsible for corrective measures regardless of previous City inspections. Contractors are advised to institute a quality control program from the beginning, and to work with City staff during construction to obtain both an approved project and a quality project. Testing performed after construction is completed is more costly, and consequences of bad results is even more costly.

When any unusual circumstances arise which may require modification of City standards or procedures, contractor shall contact City before proceeding. The City is open to new and better methodology.

Visual inspection is required after clearing, grubbing, and preparation for fills.

The City will be requiring certification of all engineered fills by a professional engineer or geologist prior to any final project approval. Certification reports shall address all aspects of filling operations: Clearing and grubbing, subgrade preparation, handling of large rock, and compaction methodology utilized. Compaction testing schedules shall be at the discretion of the professional in charge, but must be sufficient to prove the work was done properly.

Generally sewer is deepest and will be installed first. Contact Susanville Sanitary District, 530–257–5665, for construction inspection. City will require a written verification from SSD of tests and installation approval.

Water installation will be inspected by the City. Contractor shall notify City staff of work schedules to allow observation of all work. Disinfection and testing will be performed and approved prior to paving.

City will require verification from all other utilities of proper installation prior to paving.

Gas will be installed and tested by City, and will be the last utility to be installed.

Within streets to be accepted by City, the following inspection and testing will be required:

Subgrade prior to base rock: Visual inspection and compaction testing.
Base rock prior to paving: Visual inspection and thickness/compaction testing.
Paving: Visual and temperature inspection, and thickness/compaction testing; specific AC compaction and testing requirements will be provided by City prior to placement.

All concrete work will be in place before paving, unless unusual circumstances dictate otherwise in the opinion of the City. All concrete form work shall be inspected prior to pouring, including preparatory grading for slip–forming. Compaction testing will be required under sidewalk zones. City may require concrete testing (slump, strength), but will notify contractor in advance. City will require "water testing" of all questionable or low–slope gutters to detect ponding.

City will require material submittals of base rock, concrete and paving to insure compliance with City specifications.

Final acceptance of City streets and utilities may be achieved in one of three ways:

1. If all work is complete and approved, City will accept improvements and thereafter any use of streets by subsequent contractors will require encroachment permits with appropriate security deposits. Contractors will keep streets open and clean, and will be held responsible for damages by means of the security deposit.

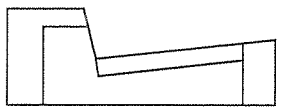
2. If all or portions of work are not complete, City may enter into an improvement agreement, backed by a security bond, in which case final acceptance will not occur until the terms of the agreement are met.

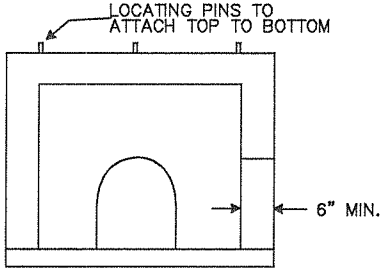
3. If all work is complete, and the contractor wishes to utilize the streets as a temporary "construction zone", the developer may wish to enter into an agreement with the City, backed by a security deposit, which will delay final acceptance until such time as construction activities within the street are not necessary.

Warranty bonds, if required, will normally be based a percentage (5% typ.) of the total construction value of City owned improvements, and will start at the time of final completion and acceptance.

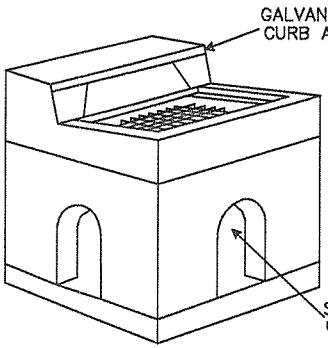
As–built plans will be required prior to final acceptance of work.

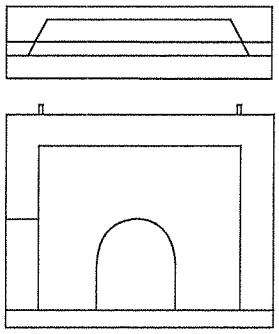
REVISIONS	CONSTRUCTION NOTES	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S–16
	RESOLUTION 13–4932	



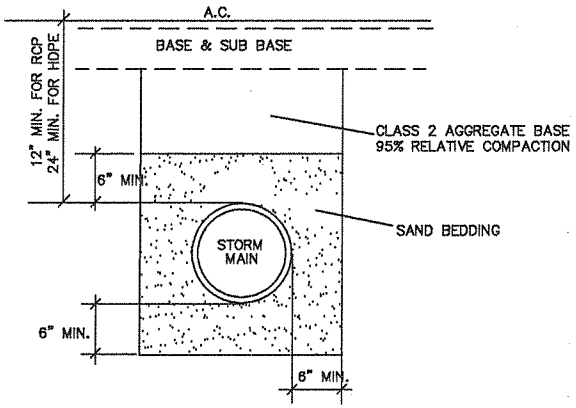


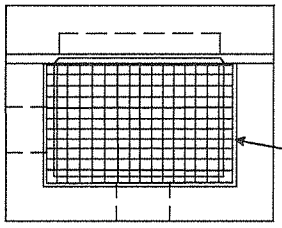
LEFT SIDE VIEW





FRONT VIEW



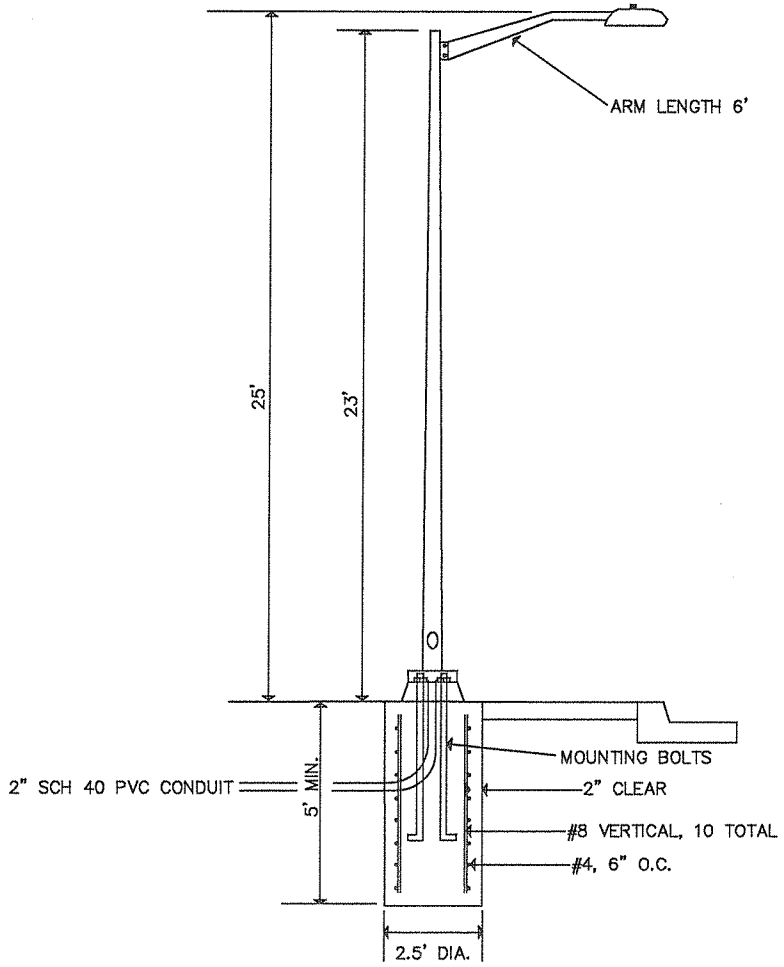


TOP VIEW

NOTES

1. DROP INLET SHALL BE CALTRANS TYPE "GO".
2. CONCRETE SHALL CONFORM TO CITY STANDARD DETAIL S-1.
3. FORMS SHALL BE INSPECTED BY THE CITY PRIOR TO BEING POURED.
4. STORM DRAIN SHALL BE CLASS 3 RCP
5. STORM DRAIN SYSTEMS LARGER THAN 36" WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS
6. TIGHTLY GROUT ALL GAPS AND AROUND ALL PIPES.

REVISIONS	DROP INLET	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-17
	RESOLUTION 13-4932	

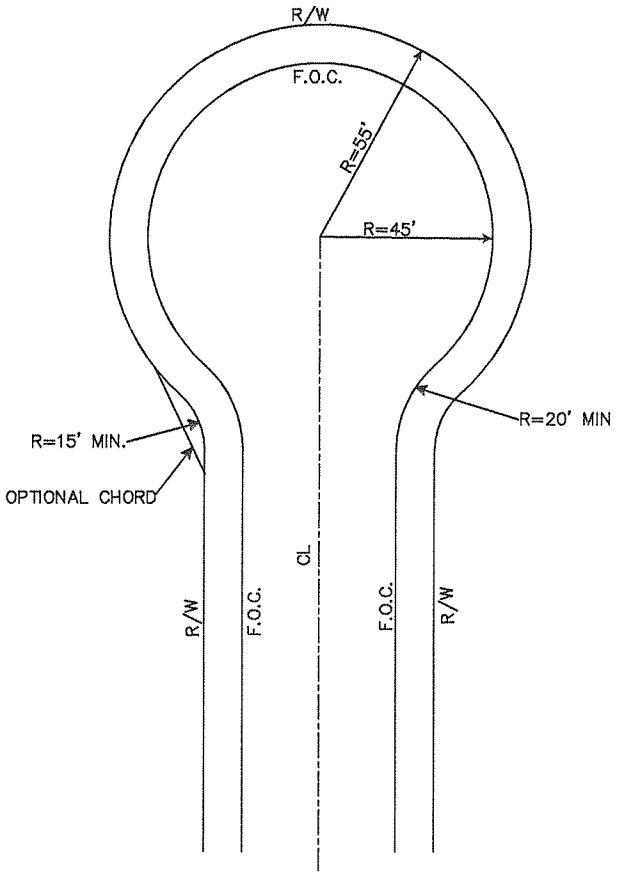


NOTES

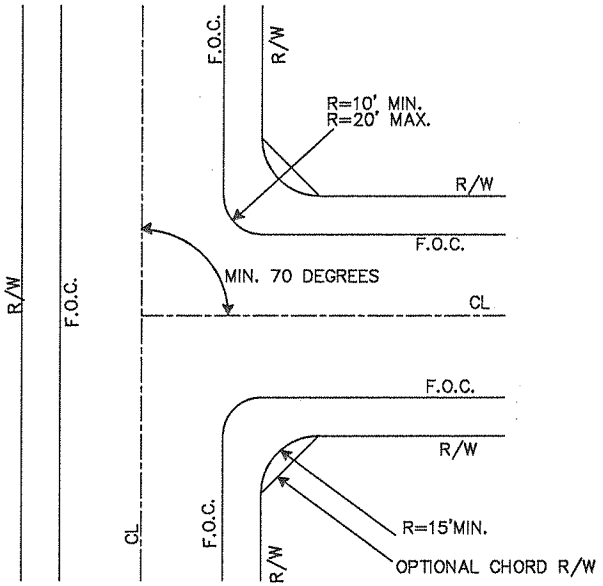
1. POLE SHALL BE TAPERED GALVANIZED STEEL 4" X 7".
2. LUMINAIRE SHALL BE 100 WATT MULTIVOLT, HPS, FULL CUTOFF.
3. MOUNTING BOLTS SHALL BE 1" X 36" X 4".
4. PHOTOCELL SHALL BE INSTALLED WITH SENSOR FACING NORTH.
5. SERVICE CONDUCTOR SHALL BE NO. 6 ALUMINUM 600 VOLT XLPE.
6. WIRE INSIDE POLE TO HAND HOLE SHALL BE NO. 10 OR NO.12 COPPER WIRE.
7. CONCRETE SHALL CONFORM TO CITY STANDARD DETAIL S-1.
8. WHEN INSTALLED AT AN INTERSECTION, POLE SHALL BE SET SO THAT POLE ARM IS AT A 45° ANGLE TO INTERSECTION.

RECOMMENDED SPACING: PLACE AT STREET INTERSECTIONS, MAJOR COMMERCIAL/INDUSTRIAL ENTRANCES (UNLESS PRIVATE LIGHTING INSTALLED; PREFERRED), AND APPROXIMATELY 500 ' INTERVALS BETWEEN INTERSECTIONS. PLACEMENT AT CRITICAL PUBLIC FACILITIES SHOULD BE CONSIDERED ALSO.

REVISIONS	STREET LIGHT	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-18
	RESOLUTION 13-4932	



CUL-DE-SAC



INTERSECTION

NOTES

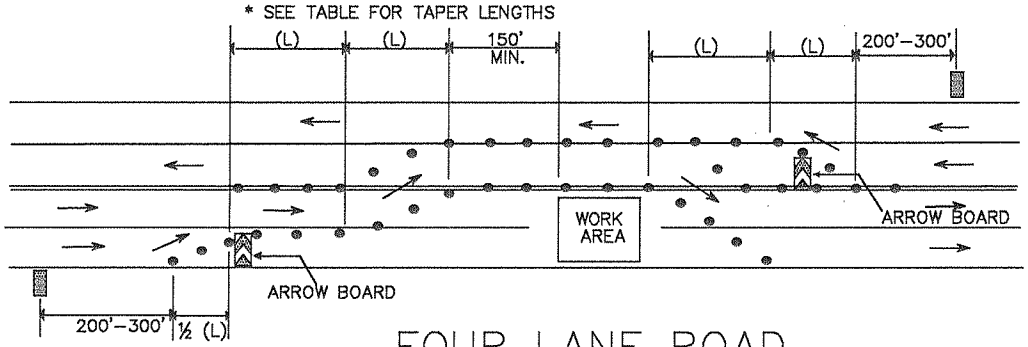
1. DISTANCE BETWEEN FACE OF CURB AND RIGHT OF WAY VARIES DEPENDING ON STREET CLASSIFICATION. SEE CITY STANDARD DETAIL S-4.
2. CURB, GUTTER AND SIDEWALK IMPROVEMENTS SHALL CONFORM TO CITY STANDARD DETAIL S-1.
3. MAXIMUM LENGTH FROM CENTERLINE OF CUL-DE-SAC TO CENTERLINE OF CONNECTING STREET IS 500 FEET, UNLESS STREET IS PLANNED FOR FUTURE EXTENSION AND LOOPING.
4. MINIMUM STREET CENTERLINE RADIUS IS 200 FEET (500 FEET ON DESIGNATED COLLECTORS AND ARTERIALS).

LEGEND

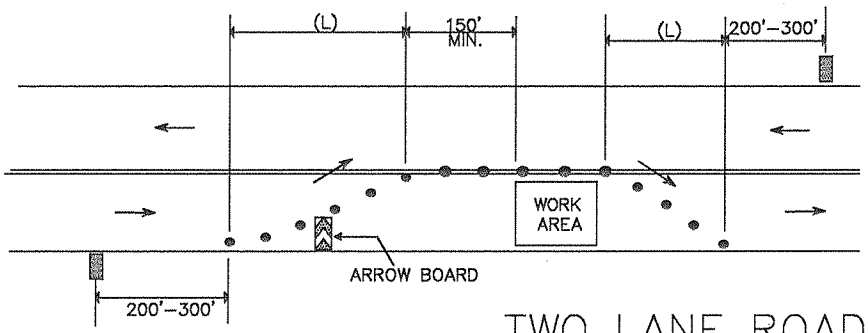
F.O.C.	FACE OF CURB
R/W	RIGHT OF WAY
CL	CENTERLINE
R	RADIUS

REVISIONS	INTERSECTION RADII	
8/24/05	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-19
	RESOLUTION 13-4932	

RECOMMEND USING LATEST METHODOLOGY FROM CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES



FOUR LANE ROAD



TWO LANE ROAD

TAPER TABLE

APPROACH SPEED (MPH)	TAPER LENGTH (L)	CONES PER TAPER	CONE SPACING (FEET)
0–25	125'	6	25
25–40	320'	9	40
45–50	600'	13	50

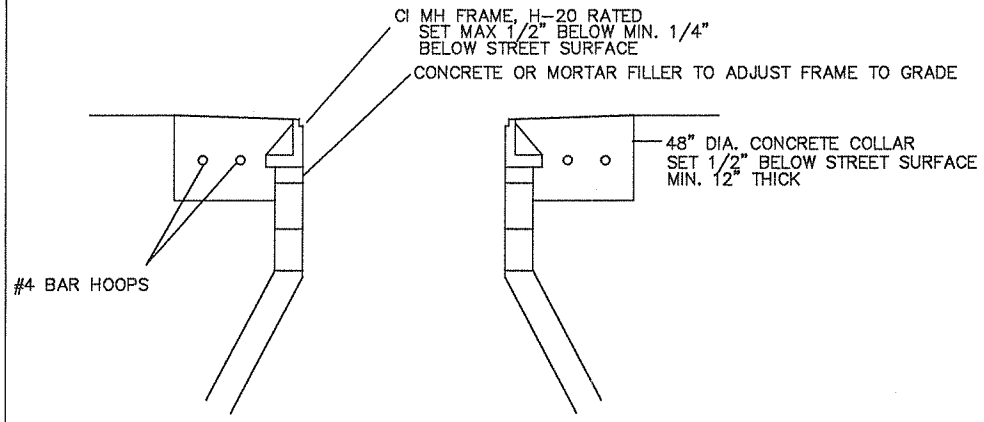
LEGEND

- WARNING SIGN
- TRAFFIC CONE
- DIRECTION OF TRAVEL

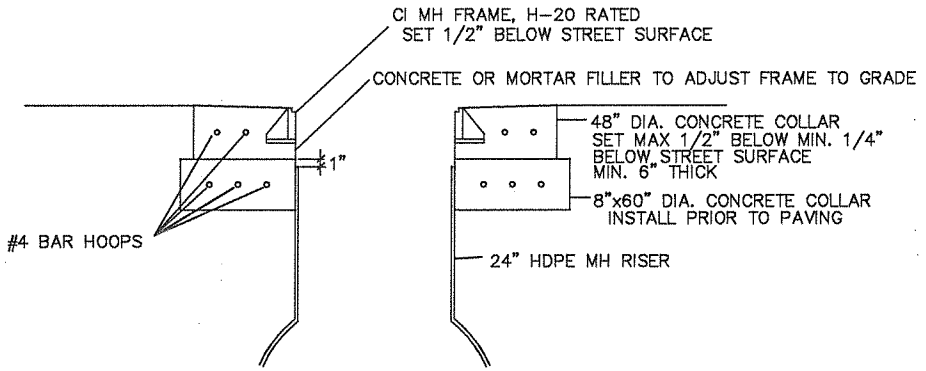
NOTES

1. ALL ADVANCED WARNING SIGNS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES.
2. PORTABLE DELINEATORS PLACED AT ONE–HALF (½) THE SPACING INDICATED FOR TRAFFIC CONES MAY BE USED IN–LIEU OF CONES FOR DAYTIME CLOSURES ONLY.
3. TRAVEL LANES SHALL BE A MINIMUM OF 10' WIDE.
4. WARNING SIGNS SHALL BE C23 "ROAD WORK AHEAD" OR C18 "ROAD CONSTRUCTION AHEAD".
5. FLAGGERS SHALL BE USED IF DEEMED NECESSARY BY THE CITY.

REVISIONS	TRAFFIC CONTROL	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S–20
	RESOLUTION 13–4932	

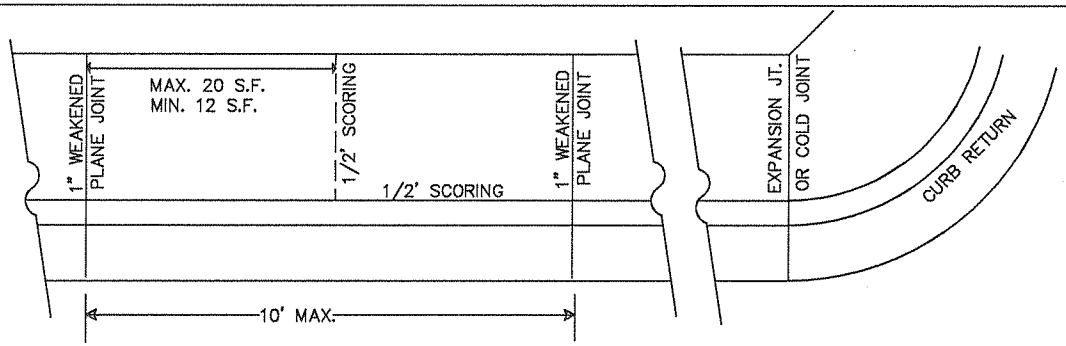


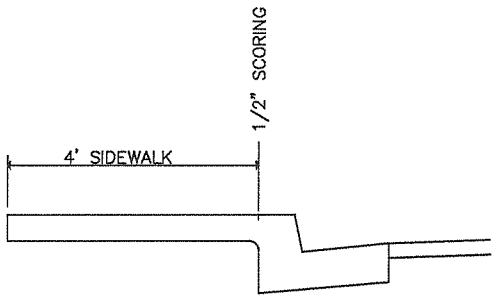
CONCRETE MANHOLE DETAIL



HDPE MANHOLE DETAIL

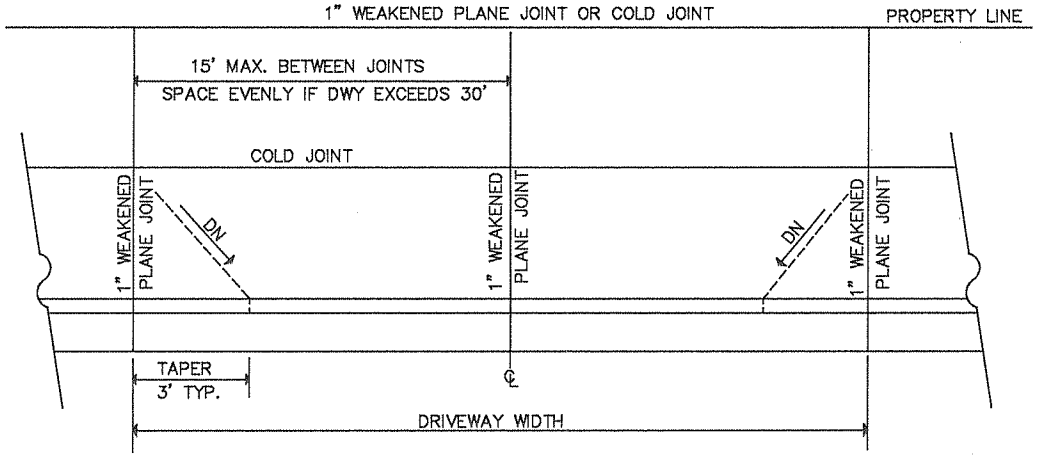
REVISIONS	SEWER MANHOLES	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	S-21
	RESOLUTION 13-4932	

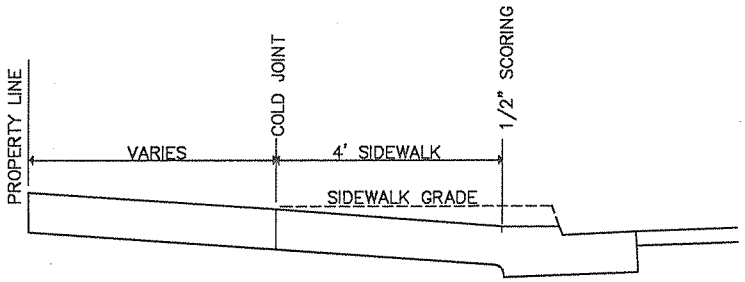




MONOLITHIC SIDEWALK, CURB, & GUTTER

USE ONLY WHEN PRE-APPROVED BY CITY



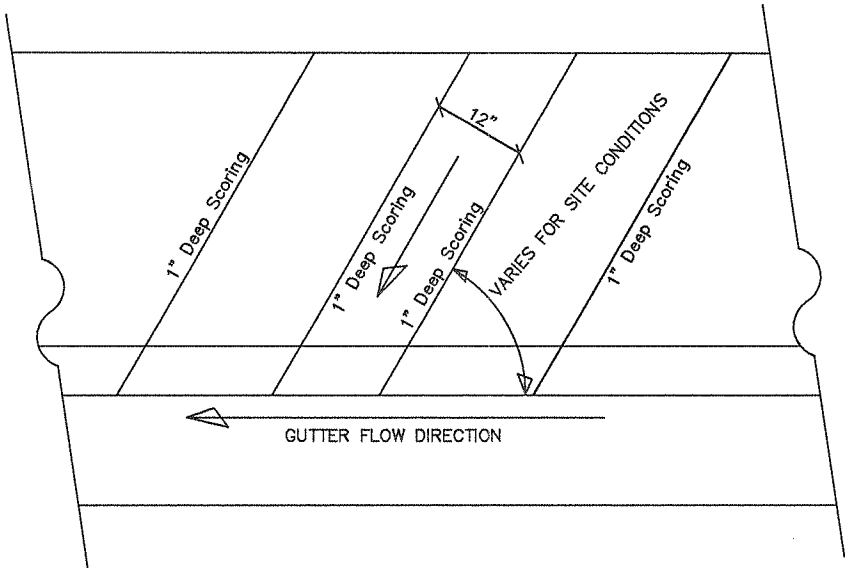


MONOLITHIC DRIVEWAY

USE ONLY WHEN PRE-APPROVED BY CITY

REVISIONS	MONOLITHIC OPTION
	CITY OF SUSANVILLE
	APPROVED MARCH 6, 2013
	RESOLUTION 13-4932

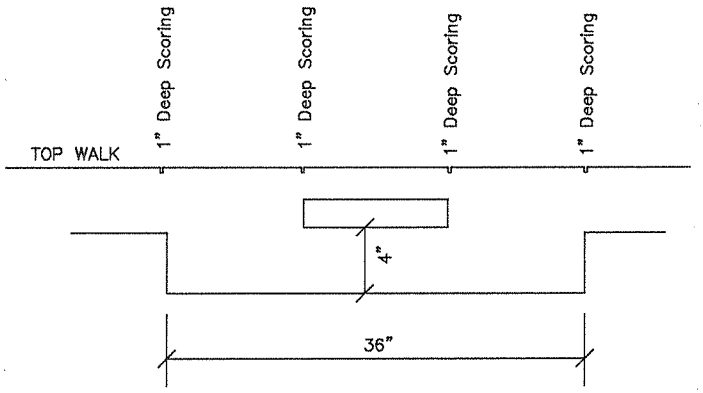
S-22



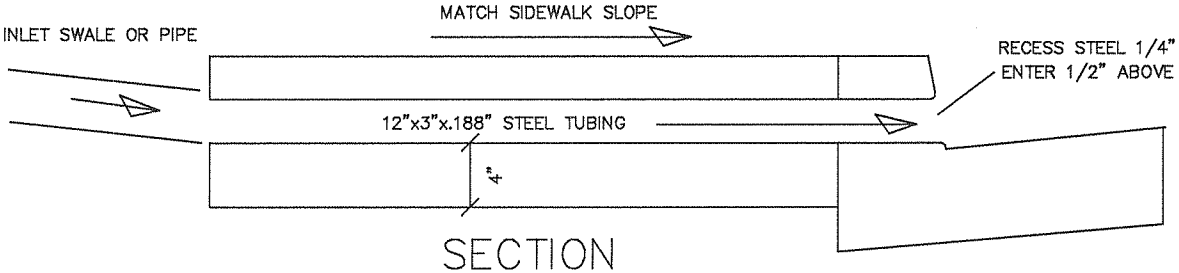
PLAN VIEW

NOTES

1. APPLICATION SUBJECT TO REVIEW AND APPROVAL BY CITY.
2. ONLY CLEAR WATER DISCHARGE TO CITY GUTTERS, NO HAZARDOUS WASTES



THRU–WALK VIEW

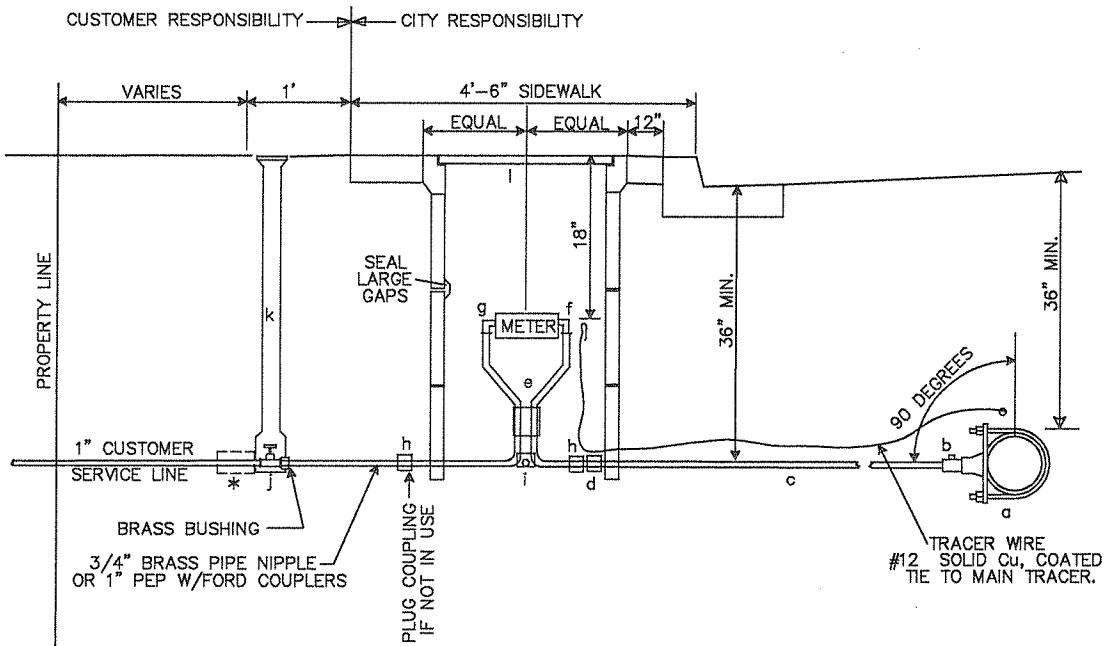


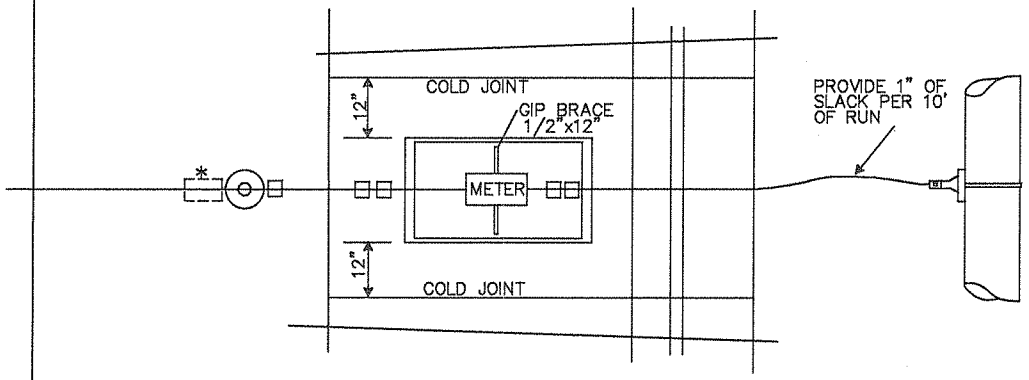
SECTION

PROPOSED DETAIL

REVISIONS	SIDEWALK & CURB DRAIN
	CITY OF SUSANVILLE
	APPROVED MARCH 6, 2013
	RESOLUTION 13–4932

S–23





* INSTALL DOUBLE CHECK VALVE, AWWA C510, BETWEEN METER AND CUSTOMER SHUT OFF VALVE ON ALL COMMERCIAL, INDUSTRIAL, AND MULTI-FAMILY SEE DETAIL W-9

NOTES

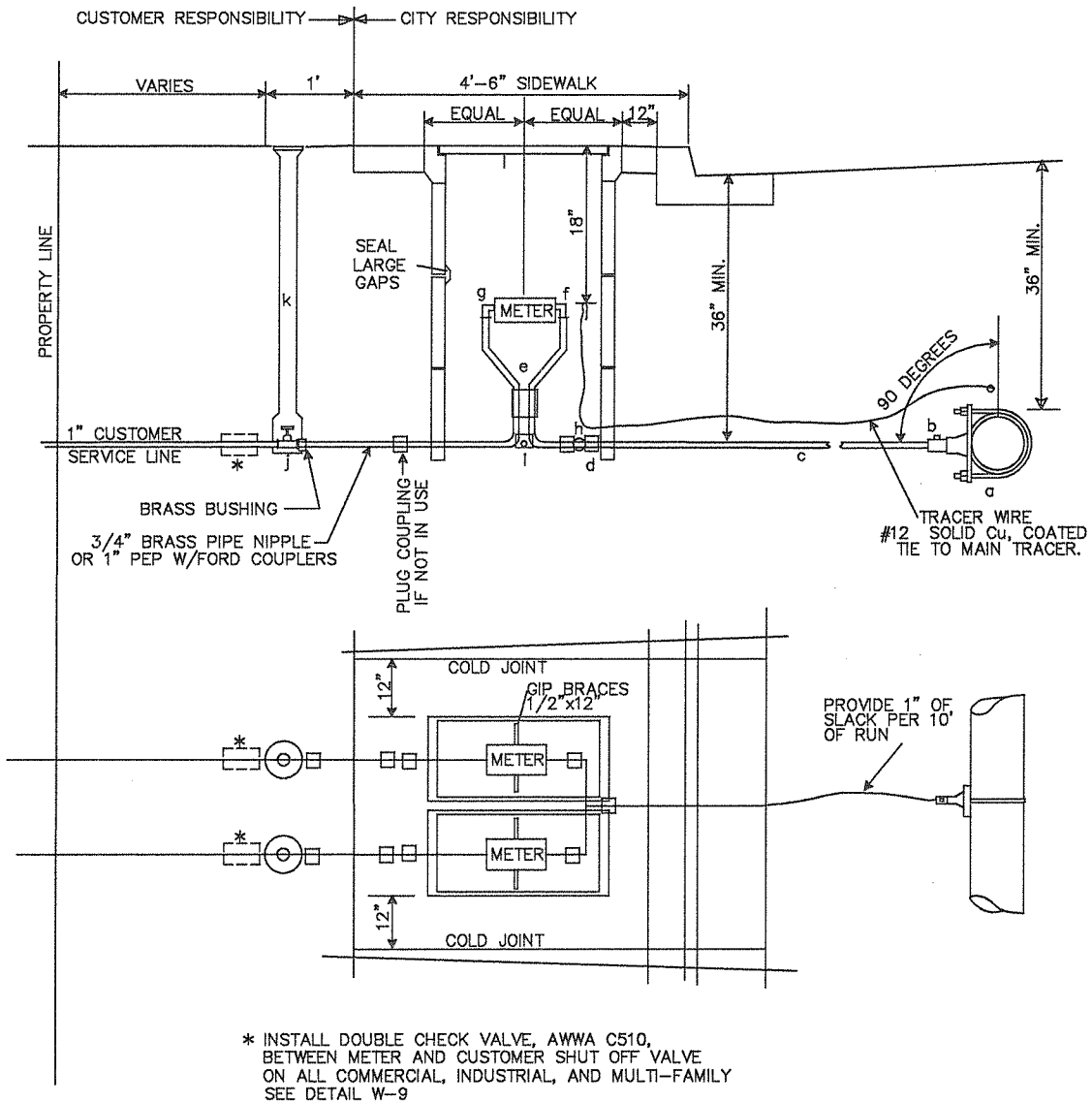
1. CONTRACTOR TO FURNISH AND INSTALL ALL ITEMS IN LEGEND.
2. DO NOT INSTALL WATER METER IN DRIVEWAY APPROACH OR WING.
3. WATER SERVICE WILL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. WATER METER, 5/8"x3/4", TO BE FURNISHED AND INSTALLED BY CITY AT OWNER'S EXPENSE.
5. ANY SUBSTITUTE ITEMS MUST BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION.
6. UPC 608.3 REQUIRES WATER HEATER EXPANSION TANKS WHENEVER CHECK VALVES ARE USED IN SERVICES.
7. CUSTOMER IS RECOMMENDED TO INSTALL A PRV IF MAIN PRESSURE EXCEEDS 80 PSI.

LEGEND

a. SADDLE – SMITH BLAIR MODEL 317, 1" FIP THREAD
b. CORPORATION STOP – FORD FB1101-4-Q-NL, 1" MIP x 1" PEP W/SS INSERT STIFFENER
c. 1" POLYETHYLENE PIPE, IPS (PEP, IRON PIPE SIZE), 200 PSI
d. 1" PEP x 3/4" MIP COUPLER, FORD C86-34-Q-NL, W/SS INSERT STIFFENER
e. FORD COPPERSETTER, VBHC92-18WD-11-33K-NL
f. BALL INLET VALVE WITH KEY
g. OUTLET DOUBLE CHECK VALVE WITH DRAIN
h. 3/4" DOUBLE PURPOSE UNION COUPLER
i. 1/2" x 12" GIP BRACE
j. 1" BALL VALVE CURB STOP, FORD B11-444-NL
k. TELESCOPING CURB BOX W/"WATER" LID. CP-TEST #253 W/SNAP LOCK BOTTOM.
l. METER BOX, RISER, AND TOP WITH READING LID, CHRISTY B16 WITH B16G LID (B16P LID FOR REMOTE METER). ADD EXTENSIONS AS NEEDED.

ALL PART NUMBER REFERENCES TO BE CONSIDERED "OR EQUAL" VERIFY ALL PART NUMBERS WITH SUPPLIER TO CONFIRM COMPATIBILITY AND/OR NEED FOR ADDITIONAL FITTINGS.

REVISIONS	3/4" SINGLE SERVICE	
12-1-08	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-1A
	RESOLUTION 13-4932	



* INSTALL DOUBLE CHECK VALVE, AWWA C510, BETWEEN METER AND CUSTOMER SHUT OFF VALVE ON ALL COMMERCIAL, INDUSTRIAL, AND MULTI-FAMILY SEE DETAIL W-9

NOTES

1. CONTRACTOR TO FURNISH AND INSTALL ALL ITEMS IN LEGEND.
2. DO NOT INSTALL WATER METER IN DRIVEWAY APPROACH OR WING.
3. WATER SERVICE WILL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. WATER METER, 5/8"x3/4", TO BE FURNISHED AND INSTALLED BY CITY AT OWNER'S EXPENSE.
5. ANY SUBSTITUTE ITEMS MUST BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION.
6. UPC 608.3 REQUIRES WATER HEATER EXPANSION TANKS WHENEVER CHECK VALVES ARE USED IN SERVICES.
7. CUSTOMER IS RECOMMENDED TO INSTALL A PRV IF MAIN PRESSURE EXCEEDS 80 PSI.

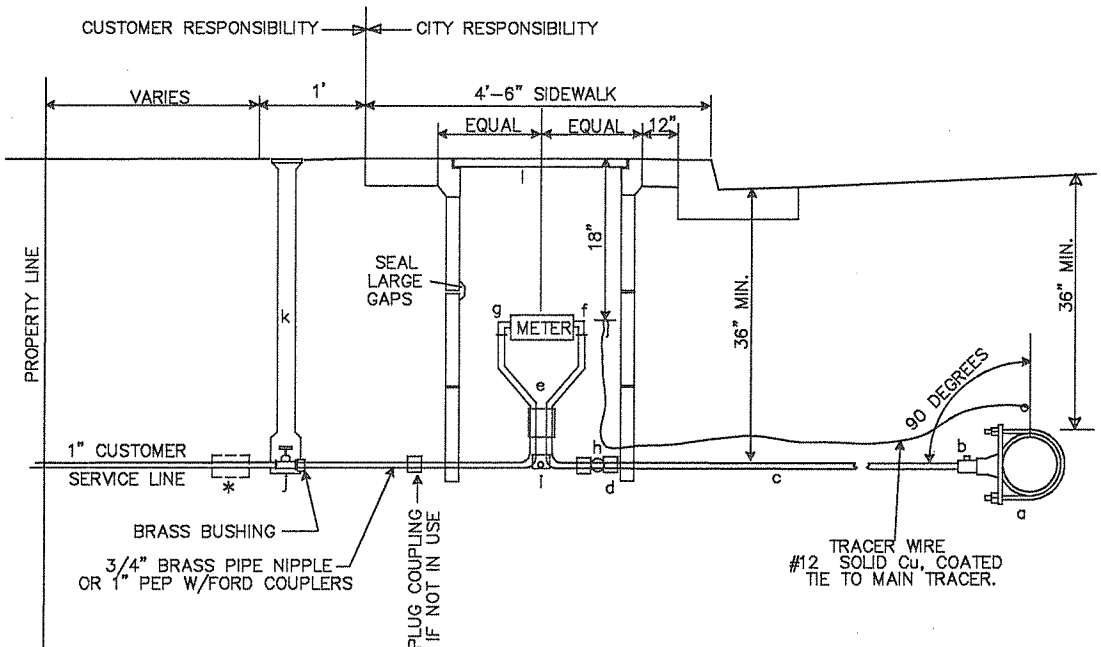
LEGEND

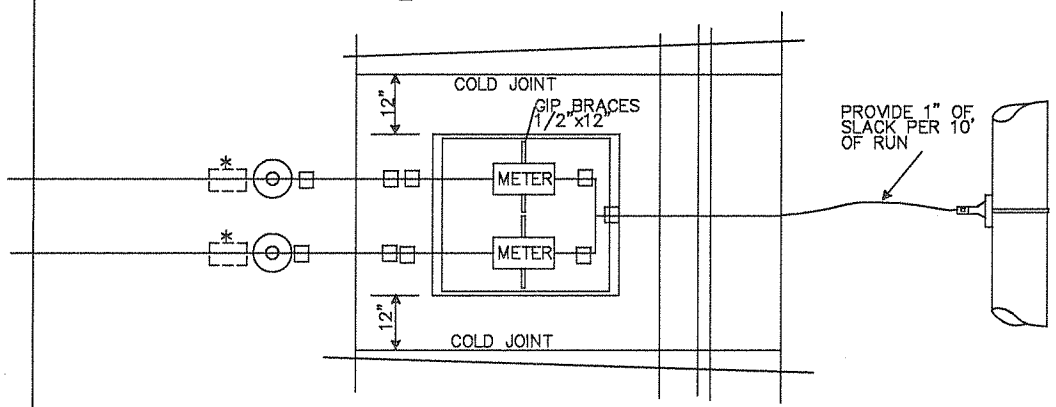
a. SADDLE - SMITH BLAIR MODEL 317, 1" FIP THREAD
b. CORPORATION STOP - FORD FB1101-4-Q-NL, 1" MIP x 1" PEP W/SS INSERT STIFFENER
c. 1" POLYETHYLENE PIPE, IPS (PEP, IRON PIPE SIZE), 200 PSI,
d. 1" PEP TO 1" MIP COUPLER, FORD C86-34-Q-NL, W/SS INSERT STIFFENER
e. FORD COPPERSETTERS, VBHC92-18WD-11-33K-NL
f. BALL INLET VALVES WITH KEY
g. OUTLET DOUBLE CHECK VALVES WITH DRAINS
h. U-BRANCH, FORD U88-43-7.5-NL
i. 1/2" x 12" GIP BRACES
j. 3/4" BALL VALVE CURB STOPS, FORD B11-444-NL
k. TELESCOPING CURB BOX W/"WATER" LID. CP-TEST #253 W/SNAP LOCK BOTTOM.
l. METER BOXES, RISERS, AND TOPS WITH READING LIDS, CHRISTY B16 WITH B16G LID (B16P LID FOR REMOTE METERS). ADD EXTENSIONS AS NEEDED.

ALL PART NUMBER REFERENCES TO BE CONSIDERED "OR EQUAL" VERIFY ALL PART NUMBERS WITH SUPPLIER TO CONFIRM COMPATIBILITY AND/OR NEED FOR ADDITIONAL FITTINGS.

REVISIONS	3/4" DOUBLE SERVICE
12-1-08	CITY OF SUSANVILLE
	APPROVED MARCH 6, 2013
	RESOLUTION 13-4932

W-2A





* INSTALL DOUBLE CHECK VALVE, AWWA C510, BETWEEN METER AND CUSTOMER SHUT OFF VALVE ON ALL COMMERCIAL, INDUSTRIAL, AND MULTI-FAMILY SEE DETAIL W-9

NOTES

1. CONTRACTOR TO FURNISH AND INSTALL ALL ITEMS IN LEGEND.
2. DO NOT INSTALL WATER METER IN DRIVEWAY APPROACH OR WING.
3. WATER SERVICE WILL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. WATER METER, 5/8"x3/4", TO BE FURNISHED AND INSTALLED BY CITY AT OWNER'S EXPENSE.
5. ANY SUBSTITUTE ITEMS MUST BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION.
6. UPC 608.3 REQUIRES WATER HEATER EXPANSION TANKS WHENEVER CHECK VALVES ARE USED IN SERVICES.
7. CUSTOMER IS RECOMMENDED TO INSTALL A PRV IF MAIN PRESSURE EXCEEDS 80 PSI.

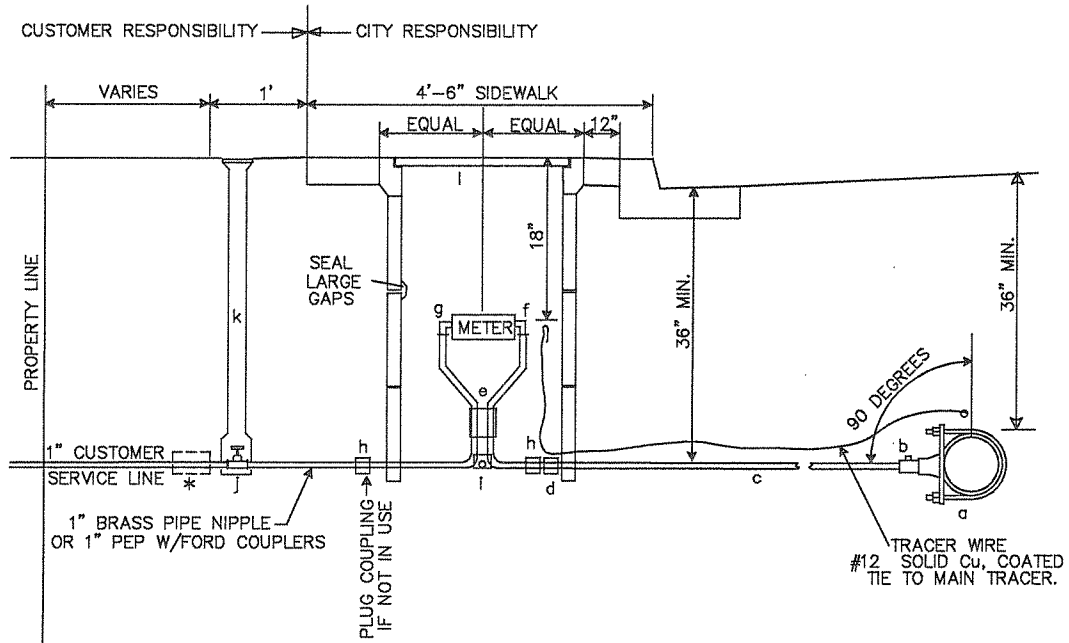
LEGEND

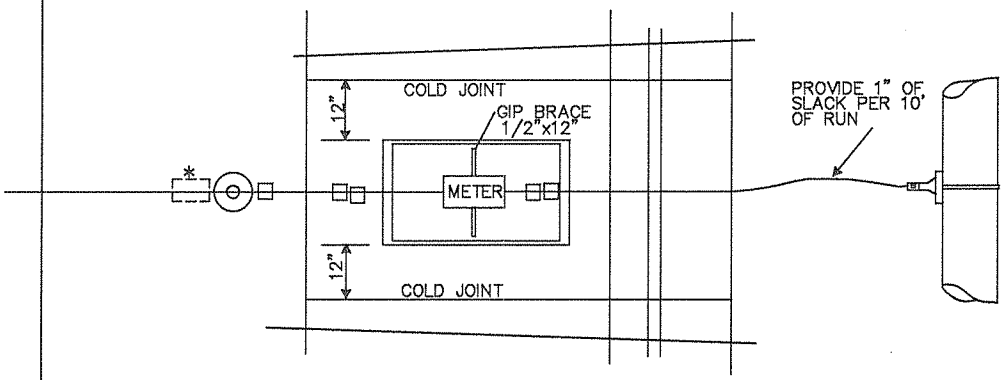
a. SADDLE – SMITH BLAIR MODEL 317, 1" FIP THREAD
b. CORPORATION STOP – FORD FB1101-4-Q-NL, 1" MIP x 1" PEP W/SS INSERT STIFFENER
c. 1" POLYETHYLENE PIPE, IPS (PEP, IRON PIPE SIZE, 200 PSI,
d. 1" PEP TO 1" MIP COUPLER, FORD C86-34-Q-NL, W/SS INSERT STIFFENER
e. FORD COPPERSETTERS, VBHC92-18WD-11-33K-NL
f. BALL INLET VALVES WITH KEY
g. OUTLET DOUBLE CHECK VALVES WITH DRAINS
h. U-BRANCH, FORD U88-43-7.5-NL
i. 1/2" x 12" GIP BRACES
j. 1" BALL VALVE CURB STOPS, FORD B11-444-NL
k. TELESCOPING CURB BOX W/"WATER" LID. CP-TEST #253 W/SNAP LOCK BOTTOM.
l. METER BOX, RISER, AND TOP WITH READING LID, CHRISTY B24 WITH B24G LID (B24P LID FOR REMOTE METERS). ADD EXTENSIONS AS NEEDED.

ALL PART NUMBER REFERENCES TO BE CONSIDERED "OR EQUAL" VERIFY ALL PART NUMBERS WITH SUPPLIER TO CONFIRM COMPATIBILITY AND/OR NEED FOR ADDITIONAL FITTINGS.

SINGLE BOX ALTERNATE

REVISIONS	3/4" DOUBLE SERVICE	
12-1-08	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-2B
	RESOLUTION 13-4932	





* INSTALL DOUBLE CHECK VALVE, AWWA C510, BETWEEN METER AND CUSTOMER SHUT OFF VALVE ON ALL COMMERCIAL, INDUSTRIAL, AND MULTI-FAMILY SEE DETAIL W-9

NOTES

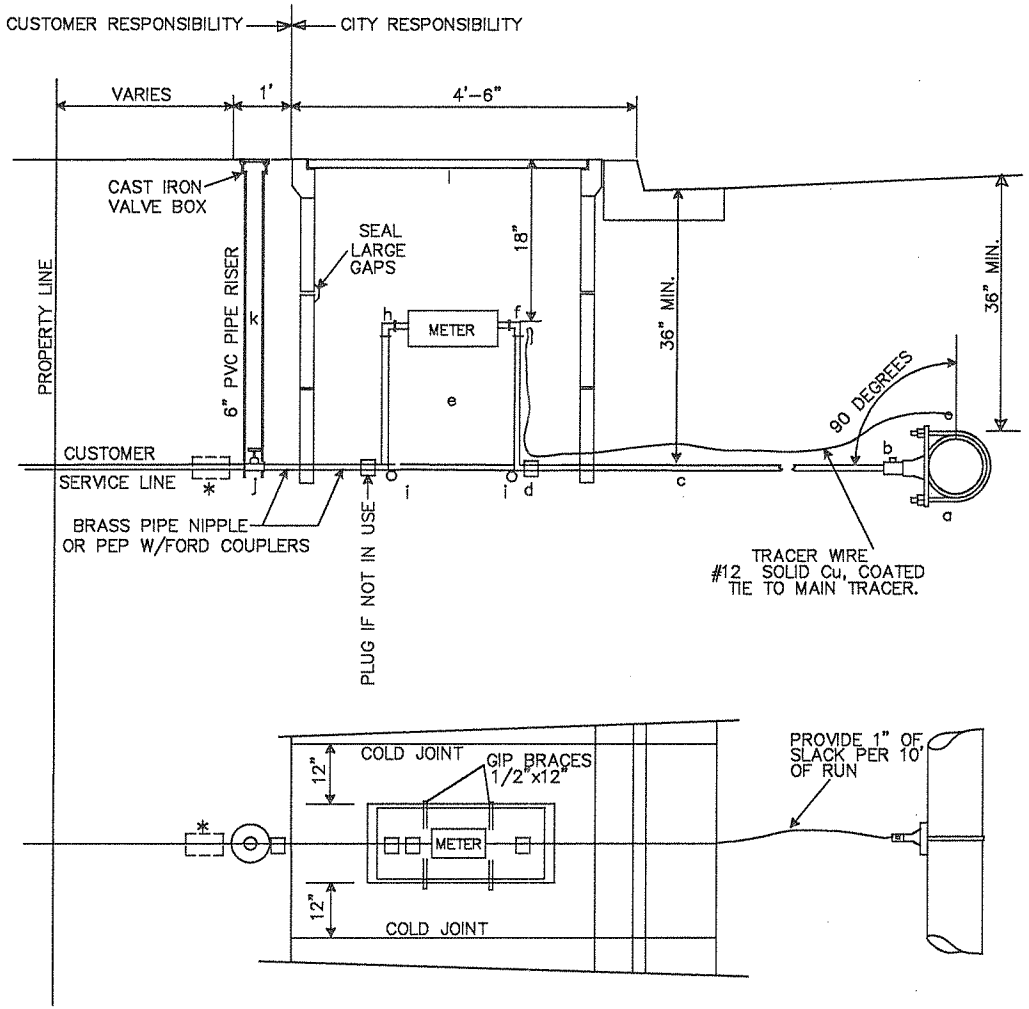
1. CONTRACTOR TO FURNISH AND INSTALL ALL ITEMS IN LEGEND.
2. DO NOT INSTALL WATER METER IN DRIVEWAY APPROACH OR WING.
3. WATER SERVICE WILL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. WATER METER, 1", TO BE FURNISHED AND INSTALLED BY CITY AT OWNER'S EXPENSE.
5. ANY SUBSTITUTE ITEMS MUST BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION.
6. UPC 608.3 REQUIRES WATER HEATER EXPANSION TANKS WHENEVER CHECK VALVES ARE USED IN SERVICES.
7. CUSTOMER IS RECOMMENDED TO INSTALL A PRV IF MAIN PRESSURE EXCEEDS 80 PSI.

LEGEND

a. SADDLE – SMITH BLAIR MODEL 317, 1" FIP THREAD
b. CORPORATION STOP – FORD FB1101-4-Q-NL, 1" MIP x 1" PEP W/SS INSERT STIFFENER
c. 1" POLYETHYLENE PIPE, IPS (PEP, IRON PIPE SIZE), 200 PSI,
d. 1" PEP x 1" MIP COUPLER, FORD C86-44-Q-NL W/SS INSERT STIFFENER
e. FORD COPPERSETTER, VBHC92-18WD-11-44K-NL
f. BALL INLET VALVE WITH KEY
g. OUTLET DOUBLE CHECK VALVE WITH DRAIN
h. 1" DOUBLE PURPOSE UNION COUPLER
i. 1/2" x 12" GIP BRACE
j. 1" BALL VALVE CURB STOP, FORD B11-444
k. TELESCOPING CURB BOX W/"WATER" LID. CP-TEST #253 W/SNAP LOCK BOTTOM.
l. METER BOX, RISER, AND TOP WITH READING LID, CHRISTY B16 WITH B16G LID (B16P LID FOR REMOTE METER). ADD EXTENSIONS AS NEEDED.

ALL PART NUMBER REFERENCES TO BE CONSIDERED "OR EQUAL" VERIFY ALL PART NUMBERS WITH SUPPLIER TO CONFIRM COMPATIBILITY AND/OR NEED FOR ADDITIONAL FITTINGS.

REVISIONS	1" SINGLE SERVICE	
12-1-08	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-3A
	RESOLUTION 13-4932	



* INSTALL DOUBLE CHECK VALVE, AWWA C510, BETWEEN METER AND CUSTOMER SHUT OFF VALVE ON ALL COMMERCIAL, INDUSTRIAL, AND MULTI-FAMILY SEE DETAIL W-9

NOTES

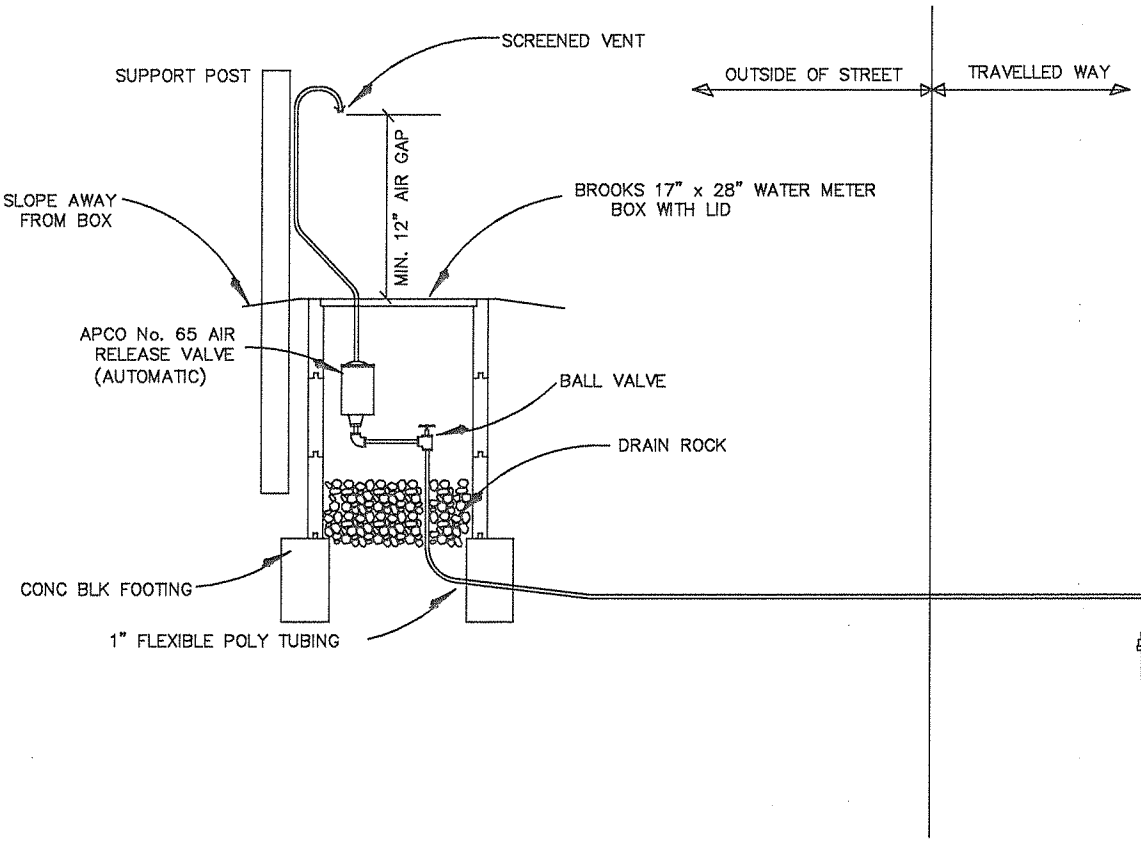
1. CONTRACTOR TO FURNISH AND INSTALL ALL ITEMS IN LEGEND.
2. DO NOT INSTALL WATER METER IN DRIVEWAY APPROACH OR WING.
3. WATER SERVICE WILL BE INSPECTED AND APPROVED BY CITY PRIOR TO SIDEWALK INSTALLATION.
4. WATER METER TO BE FURNISHED AND INSTALLED BY CITY AT OWNER'S EXPENSE.
5. ANY SUBSTITUTE ITEMS MUST BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION.
6. UPC 608.3 REQUIRES WATER HEATER EXPANSION TANKS WHENEVER CHECK VALVES ARE USED IN SERVICES.
7. CUSTOMER IS RECOMMENDED TO INSTALL A PRV IF MAIN PRESSURE EXCEEDS 80 PSI.

LEGEND

a. SADDLE – SMITH BLAIR MODEL 317, 1½"–2" FIP THREAD
b. CORPORATION STOP – FORD FB1101–7–IDR7–NL/FB1101–6–IDR7–NL, MIP x PEP W/SS INSERT STIFFENER
c. 1½"–2" POLYETHYLENE PIPE, IPS (PEP, IRON PIPE SIZE), 200 PSI,
d. PEP x MIP COUPLER, FORD C86–66–IDR7–NL W/SS INSERT STIFFENER
e. FORD COPPERSETTER, VBHC92–18WD–11–66K–NL, W/DRAIN
f. BALL ANGLE VALVE
h. OUTLET DOUBLE CHECK VALVE W/DRAIN
i. 1/2" x 12" GIP BRACES
j. 1½"–2" BALL VALVE CURB STOP, FORD FB1101–6–IDR7–NL/FB1101–7–IDR7–NL.
k. TELESCOPING CURB BOX W/"WATER" LID.
l. METER BOX, RISER, AND TOP BOX WITH READING LID CHRISTY B–44 WITH B44E2 LID. ADD EXTENSIONS AS NEEDED.

ALL PART NUMBER REFERENCES TO BE CONSIDERED "OR EQUAL" VERIFY ALL PART NUMBERS WITH SUPPLIER TO CONFIRM COMPATIBILITY AND/OR NEED FOR ADDITIONAL FITTINGS.

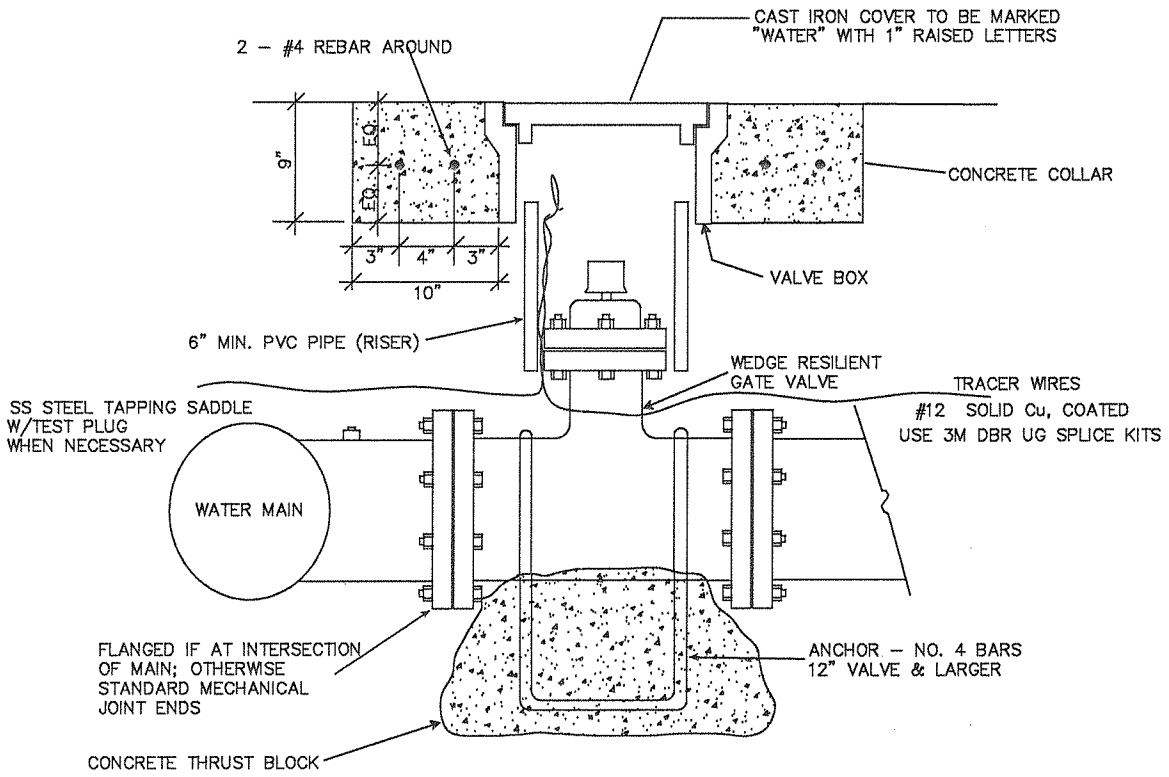
REVISIONS	1½" & 2" METER DETAIL	
12–1–08	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W–4A
	RESOLUTION 13–4932	



NOTES

1. VALVE MAY BE OMITTED IN LOCATIONS WHERE LATERALS CAN ACHIEVE SAME PURPOSE.
2. AIR RELEASE VALVE TO BE LOCATED IN RIGHT OF WAY & BEHIND SIDEWALK, TYPICALLY.
3. AIR RELEASE VALVE MAY BE MOUNTED DIRECTLY ON TOP OF MAIN WHEN OUTSIDE STREET AND WELL-DRAINED.

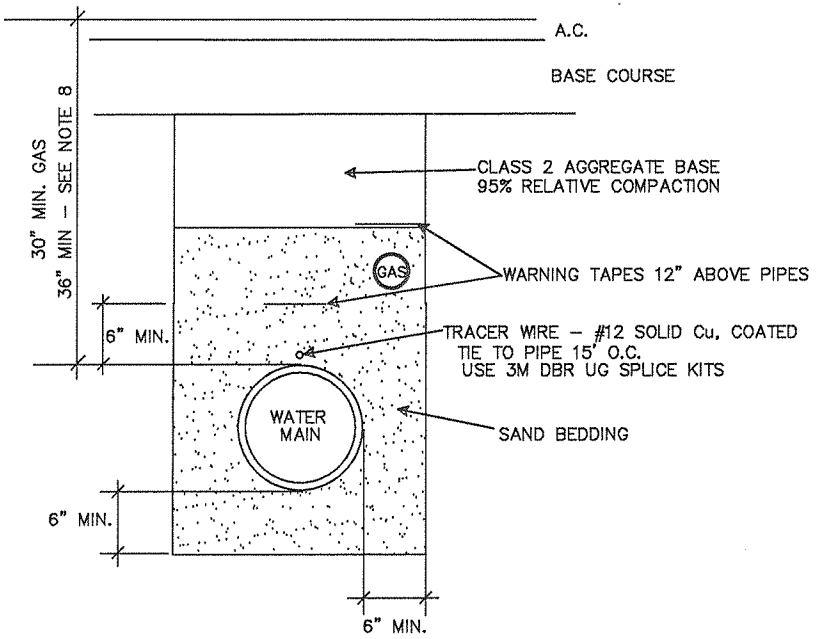
REVISIONS	AIR RELEASE VALVE	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-5
	RESOLUTION 13-4932	



NOTES

1. VALVE SHALL BE MUELLER RESILIENT WEDGE AWWA C–509–01 OR CITY APPROVED EQUAL. ALL INTERIOR PARTS, INCLUDING DISCS, SHALL BE CONSTRUCTED OF BRONZE. GATE VALVES SHALL BE NON–RISING STEM AND FURNISHED WITH "O" RING SEALS.
2. VALVE BOX SHALL BE COOKS NO. C12 OR CITY APPROVED EQUAL.
3. MECHANICAL JOINT END DIMENSIONS SHALL CONFORM TO CLASS 150 CAST IRON O.D. PIPE; AWWA TABLE 2, C–510–98.
4. FLANGE DIMENSIONS AND DRILLING SHALL COMPLY TO ANSI B16.1, CLASS 150 FOR FLANGED ENDS.
5. GATE VALVE SHALL REMAIN CLOSED UNTIL INSTALLATION IS COMPLETE.
6. VALVES SHALL BE PLACED ALL SIDES OF TEES AND CROSSES.
7. AFTER INSTALLATION & BEFORE PRESSURIZATION, AN INSPECTION SHALL BE PERFORMED BY THE CITY.
8. VALVE EXCAVATION AREA SHALL NOT BE BACKFILLED UNTIL AFTER PRESSURE TESTS HAVE BEEN MADE.
9. ANY SUBSTITUTIONS SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION OR USE.
10. CONCRETE COLLAR SHALL BE A 6 SACK MIX WITH 4 ½ – 6% AIR ENTRAINMENT.
11. IF MORE THAN ONE VALVE IS ENCLOSED BY CONCRETE COLLAR, ENTIRE DEPTH OF COLLAR SHALL BE 9" AND COLLAR CORNERS SHALL HAVE MINIMUM RADII OF 16".
12. TAPPING SADDLES, WHEN NECESSARY, SHALL BE ROMAC SST 304 WITH TEST PLUG, OR APPROVED EQUAL.
13. MAXIMUM VALVE SPACING IS 1000 FEET.

REVISIONS	VALVES & BOXES	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W–6
	RESOLUTION 13–4932	



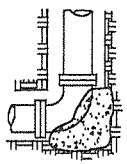
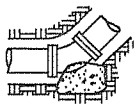
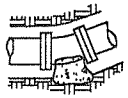
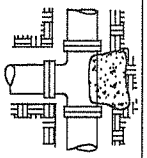
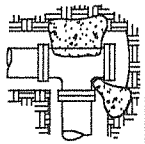
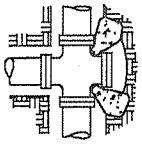
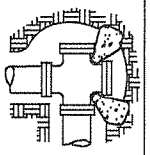
NOTES

1. SAND SHALL BE FREE FROM CLAY AND/OR ORGANIC MATERIAL, SUITABLE FOR THE PURPOSE INTENDED, AND AS APPROVED BY THE CITY. SAND SHALL BE OF SUCH SIZE THAT NINETY (90) PERCENT TO ONE HUNDRED (100) PERCENT SHALL PASS A NO. 4 SIEVE, AND NOT MORE THAN FIVE (5) PERCENT WILL PASS A NO. 200 SIEVE.
2. AGGREGATE BASE MATERIAL SHALL CONFORM TO SECTION 26 OF THE CALIFORNIA STANDARD SPECIFICATIONS. THE BASE SHALL BE 1" MAXIMUM GRADING. BASE MATERIAL SHALL BE BROUGHT UP IN MOISTENED LAYERS NOT TO EXCEED 6" AND COMPACTED BY MECHANICAL MEANS TO 95% RELATIVE MAXIMUM DENSITY.
3. WATER PIPE SHALL BE C-900, C-905 UNLESS OTHERWISE REQUIRED OR ALLOWED BY CITY. INSTALLATION SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTRUCTIONS.
4. LANE CLOSURES SHALL CONFORM TO CITY STANDARD DETAIL S-20.
5. INSPECTION IS REQUIRED AT TIME PIPE IS LAID AND PRIOR TO INSTALLATION OF ASPHALT. A FINAL INSPECTION SHALL BE PERFORMED AFTER PLACEMENT OF ASPHALT.
6. PROVIDE 12" MINIMUM SEPARATION W/CROSSING SANITARY SEWERS; SS JOINTS TO BE 10' FROM CROSSING POINT.
7. DISINFECTION: USE MINIMUM OF 2 CHLORINE TABLETS PER 20' LENGTH; GLUE WITH PERMETEX 800-11 SEALANT.
8. DEPTHS FOR JOINT TRENCH INSTALLATIONS MAY NEED TO INCREASE. LAYOUT OF JOINT TRENCHES MUST BE APPROVED BY CITY.
9. WATER MAINS SHALL BE SEPARATED A MINIMUM OF 10 FEET HORIZONTALLY WHEN RUN PARALLEL (SIDE OF PIPE TO SIDE OF PIPE). FOR CROSSINGS, WATER MAINS SHALL BE A MINIMUM OF 1-FOOT ABOVE SEWER MAINS. IF SITUATION DICTATES, ALTERNATE CRITERIA AS APPROVED BY THE STATE DHS SHALL BE USED.

FOR TRENCH CUTS IN EXISTING STREETS USE DETAIL S-8

REVISIONS	UTILITY TRENCH DETAIL	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-7
	RESOLUTION 13-4932	

BEARING AREA – TOTAL SQUARE FEET

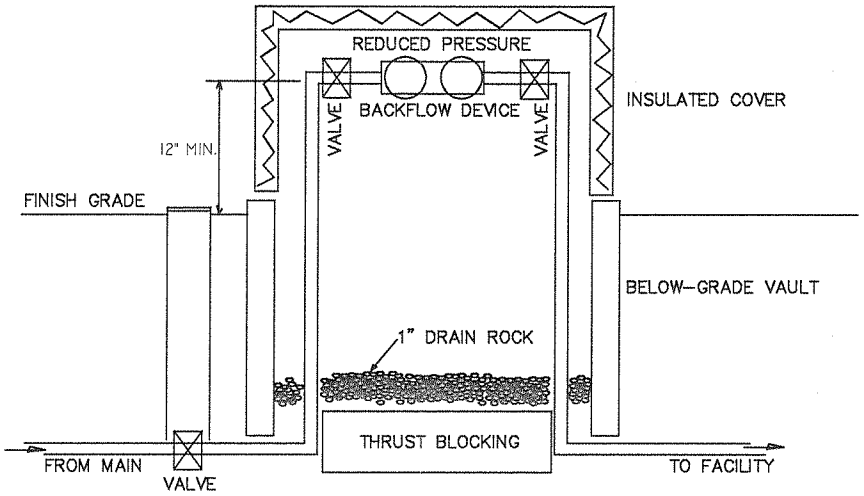
TYPE OF FITTING		90° BEND	45° BEND	11¼° OR 22½° BEND	TEE OR DEAD END	TEE	CROSS	CROSS
						SEE STUB OUT DETAIL		
TYPICAL INSTALLATION								
SIZE OF PIPE	4"	2	1	1	2	2	2	2
	6"	4	2	1	3	4	4	4
	8"	7	4	2	5	7	7	7
	10"	12	6	3	8	12	12	12
	12"	16	10	5	12	16	16	16
	14"	20	12	7	15	20	20	20

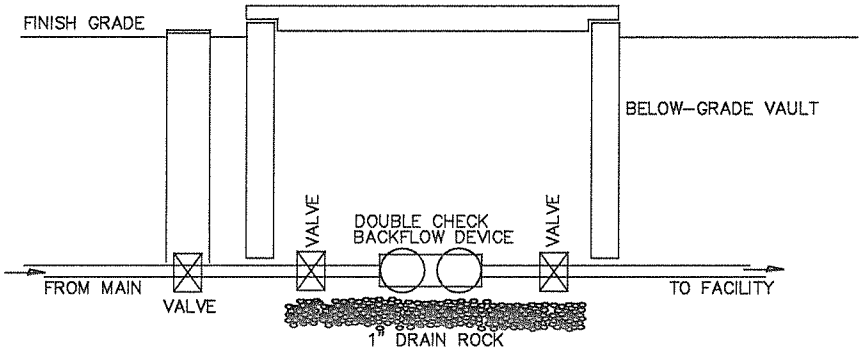
NOTES

1. THRUST BLOCKS TO BE CONSTRUCTED OF 2000 PSI, 28–DAY CONCRETE.
2. AREAS GIVEN ARE FOR CLASS 150 PIPE AT TEST PRESSURE OF 150 P.S.I.
   IN SOILS WITH 2,000 P.S.F. BEARING CAPACITY (FIRM SANDS & GRAVELS).
   IN WEAKER SOILS (SOFT SILTS & CLAYS), CONSULT SOILS ENGINEER.
3. BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
4. JOINTS TO BE KEPT CLEAR OF CONCRETE.
5. BLOCKS SHALL BE A MINIMUM OF 6" THICK.
6. CASES FOR VERTICAL UPLIFT TO BE ENGINEERED.

REVISIONS	THRUST BLOCK SCHEDULE
	CITY OF SUSANVILLE
	APPROVED MARCH 6, 2013
	RESOLUTION 13–4932

W–8





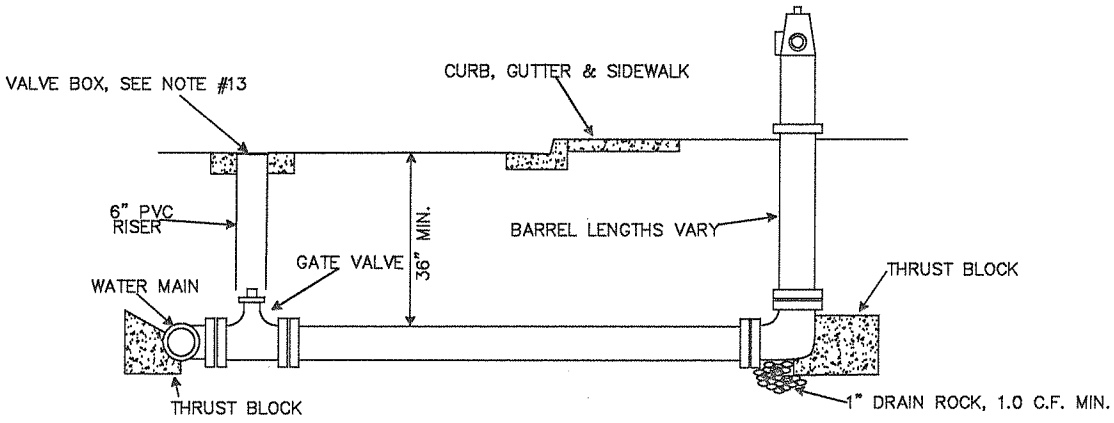
NOTES

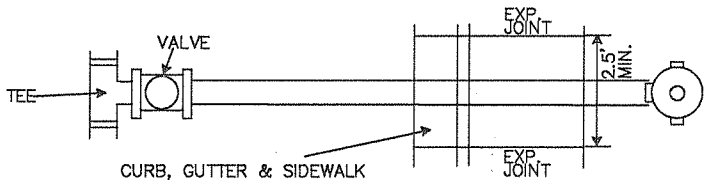
1. SCHEMATIC DRAWING ONLY SHOWN; CONTRACTOR TO PROVIDE SHOP DRAWING PRIOR TO INSTALLATION.
2. BACKFLOW DEVICE SIZE & TYPE TO BE SPECIFIED BY CITY TO FIT SITUATION. VERIFY BEFORE PURCHASING. USE UPC AND TITLE 22 RULES FOR APPLICATION.
3. RECOMMEND TO INSTALL RP's WITHIN BUILDING MECHANICAL ROOMS WHEN PRACTICAL TO PROTECT AGAINST FREEZING AND TO BE ACCESSIBLE DURING WINTER.
4. REDUCED PRESSURE TYPES TO MEET AWWA C511 STANDARDS.
5. DOUBLE CHECK TYPES TO MEET AWWA C510 STANDARDS.

REVISIONS	BACKFLOW DEVICE	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-9
	RESOLUTION 13-4932	

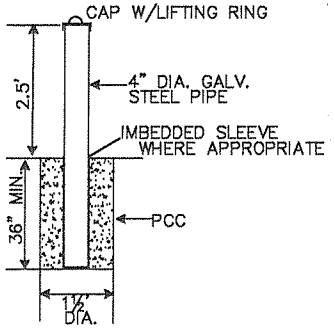
NOTES

1. HYDRANT SHALL COMPLY WITH LATEST AWWA STANDARDS. WORKING PRESSURE SHALL BE 150 PSI. HYDROSTATIC PRESSURE SHALL BE 300 PSI. HYDRANTS WILL BE COMPRESSION TYPE WITH MAIN VALVE OPENING AGAINST THE PRESSURE AND CLOSING WITH THE PRESSURE.
2. HYDRANT SHALL BE OPENED BY TURNING TO THE LEFT AND SHALL HAVE A 1½" POINT TO FLAT BRONZE OPERATING NUT.
3. HYDRANTS WILL BE DRY TOP DESIGN. HYDRANTS WITH OPERATING THREADS LOCATED IN THE WATERWAY WILL NOT BE ACCEPTED.
4. PACKING GLAND IN BONNET SHALL BE SOLID BRONZE WITH DOUBLE "O" RING SEALS.
5. HYDRANTS WILL HAVE TWO 2½" N.S.T. HOSE NOZZLES AND ONE 4½" STEAMER NOZZLE WITH HOSE AND STEAMER CAPS CHAINED INDIVIDUALLY TO THE HYDRANT.
6. THE MAIN VALVE FACING SHALL BE MADE OF RUBBER WITH THE MAIN VALVE OPENING NOT LESS THAN 4½" DIAMETER.
7. HYDRANTS WILL BE OF THE DRY BARREL TYPE WITH TWO POSITIVE ACTING NON-CORRODIBLE DRAIN VALVES THAT SHALL DRAIN THE HYDRANT COMPLETELY BY OPENING AS SOON AS MAIN VALVE IS CLOSED AND CLOSE WHEN THE MAIN VALVE IS OPEN. SPRING OR GRAVITY FLOW DRAIN VALVES ARE NOT ACCEPTABLE.
8. THE MAIN VALVE SEAT WILL BE BRONZE WITH A CAP NUT ON BOTTOM STEM THREADS TO PREVENT CORROSION.
9. HYDRANTS SHALL HAVE A SIX INCH INLET.
10. CITY CREWS SHALL TAP MAIN, IF NECESSARY.
11. INSTALLATION SHALL BE APPROVED BY THE CITY BEFORE BACKFILL.
12. HYDRANTS SHALL CONFORM TO AWWA C-502 AND SHALL BE MUELLER A423 OR CITY APPROVED EQUAL.
13. VALVE BOX SHALL CONFORM TO CITY STANDARD DETAIL W-6.
14. HYDRANTS SHALL HAVE A MINIMUM OF 3' RADIUS CLEAR SPACE.



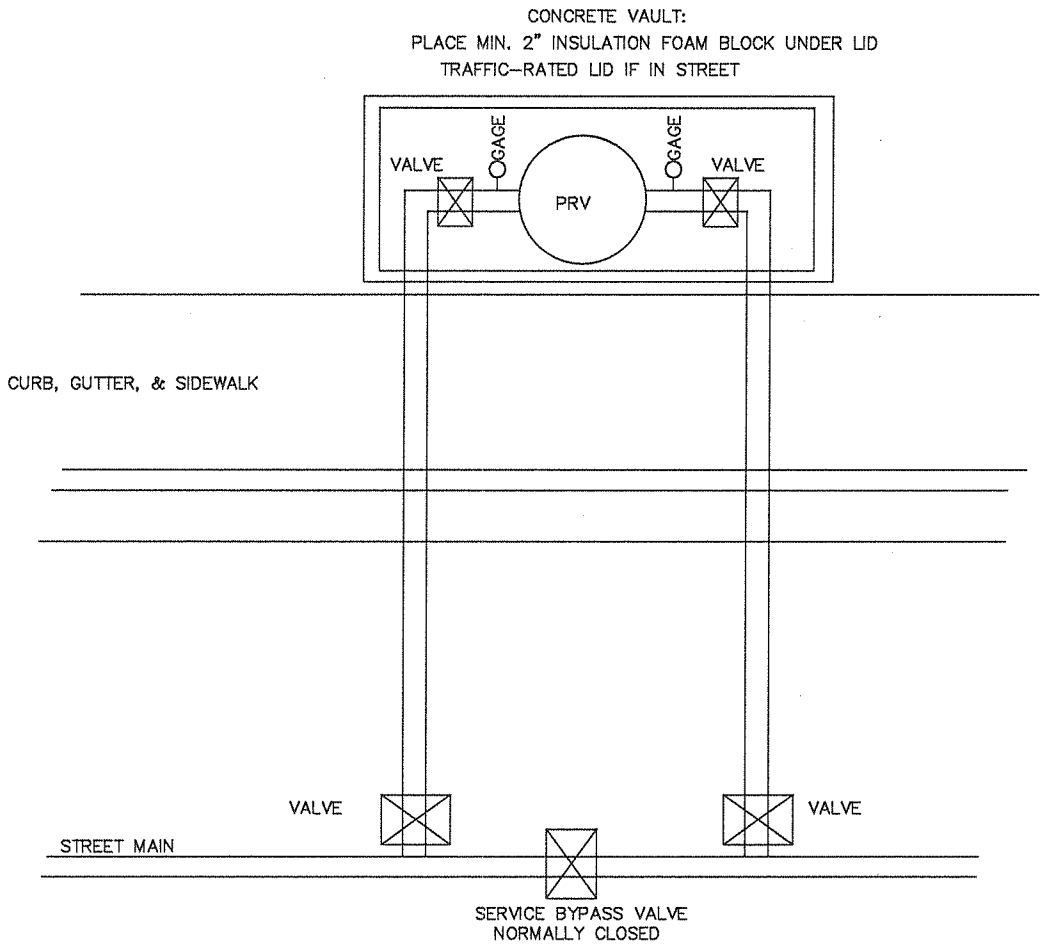


BOLLARD GUARD POSTS
(IF REQUIRED BY FIRE CHIEF)



15. HYDRANTS WILL BE PROVIDED IN THE COLOR OF YELLOW FROM MANUFACTURER OR FIELD PAINTED RUSTOLEUM OIL BASE "SAFETY YELLOW" OR EQUAL. HYDRANTS ON PRIVATE PROPERTY SHALL BE PAINTED RED.
16. SPACING AND LOCATIONS TO BE DETERMINED BY FIRE DEPARTMENT, TYPICALLY 300' SPACING.
17. HYDRANTS IN LOCATIONS OUTSIDE OF CITY STREETS SHALL HAVE SHUTOFF VALVES INSTALLED WITHIN 10 FEET OF HYDRANT

REVISIONS	FIRE HYDRANT	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-10
	RESOLUTION 13-4932	

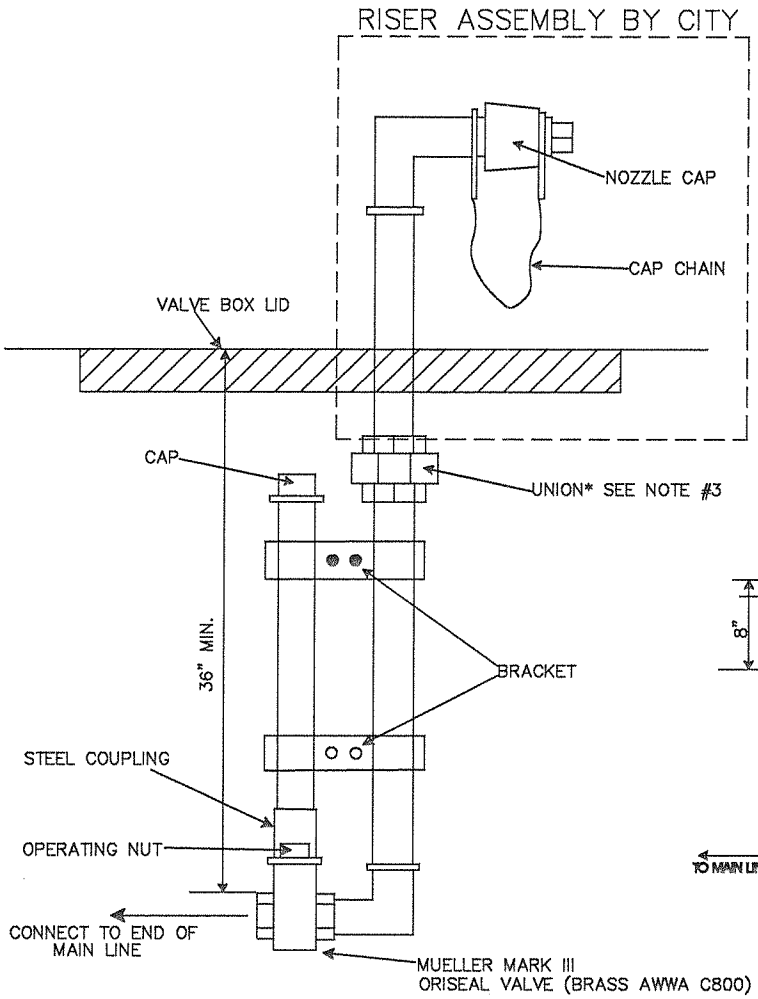


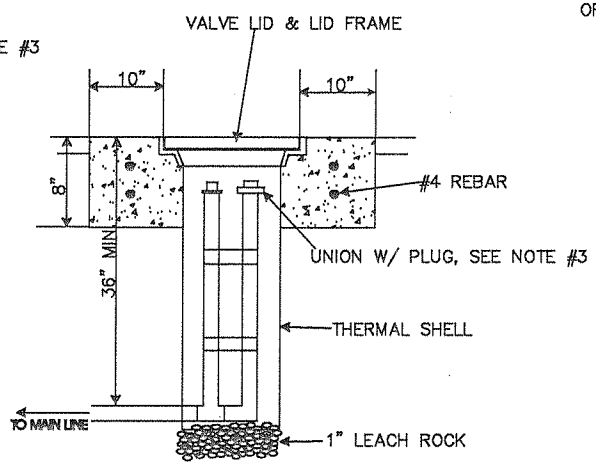
PLAN VIEW

NOTES

1. PREFERRED LOCATION IS OUSIDE OF STREEET TRAVELLED WAY AS SHOWN, IF POSSIBLE; IN-STREET VAULTS ARE ALLOWED IF CIRCUMSTANCES DICTATE.
2. SCHEMATIC DRAWING ONLY SHOWN; CONTRACTOR TO PROVIDE SHOP DRAWING PRIOR TO INSTALLATION, FOR REVIEW AND APPROVAL BY CITY.
3. PRESSURE REDUCER SIZE & TYPE TO BE SPECIFIED BY CITY TO FIT SITUATION.
4. PROVIDE UPSTREAM AND DOWNSTREAM VALVES AND PRESSURE GAUGES.

REVISIONS	PRESSURE REDUCER	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-11
	RESOLUTION 13-4932	





VALVE BOX DETAIL

NOTES

1. PIPE SIZE FOR BLOW OFF SHALL BE 2" MINIMUM.
2. BLOW OFF SHALL BE SET INSIDE VALVE BOW. VALVE BOX SHALL CONFORM TO CITY STANDARD W-6.
3. PLUG SHALL BE INSTALLED AT UNION AFTER USE OF BLOW OFF.
4. BLOW OFF SHALL BE MUELLER FABRICATED POST TYPE FLUSHING HYDRANT A-408 OR CITY APPROVED EQUAL.
5. VALVE BOX LID SHALL BE A MUELLER LID NO. 282924 OR APPROVED EQUAL. LID FRAME SHALL BE MUELLER NO. 700097 OR APPROVED EQUAL. THERMAL SHELL SHALL BE MUELLER SV1530 OR APPROVED EQUAL. SHELL EXTENSION (IF NEEDED) SHALL BE MUELLER NO. SE1506 OR APPROVED EQUAL.

MAY NEED BOTTOM FLUSHING DETAIL FOR SPECIAL CASES

REVISIONS	BLOW OFF DETAIL	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-12
	RESOLUTION 13-4932	

GENERAL PROCEDURES

THE CITY WATER DEPARTMENT SHALL BE CONTACTED TO VERIFY PROCEDURES APPLICABLE TO SPECIFIC SITUATION.
ISOLATED NEW LINE INSTALLATIONS ARE TREATED DIFFERENTLY THAN SYSTEM REPAIRS OR LINE REPLACEMENTS.
NO LINE OR FACILITY MAY BE CONNECTED TO THE CITY WATER SYSTEM OR PLACED IN SERVICE PRIOR TO CITY APPROVAL.
INSTALLATION OF ALL MATERIALS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SUPPLIED INSTRUCTIONS.
CONTRACTOR SHALL OBTAIN A COPY OF PIPE MANUFACTURER INSTALLATION GUIDE AND MAINTAIN THE COPY ON-SITE.

WATER LINE DISINFECTION – AWWA C651, TABLET METHOD

LINES SHALL BE FILLED SLOWLY SO AS NOT TO DISLODGE TABLETS, & PURGED OF ALL AIR.
PRESSURES SHALL BE MAINTAINED LOWER THAN CHARGING SOURCE DURING DISINFECTION PROCESS.
INITIAL CHLORINE RESIDUAL SHALL BE A MINIMUM OF 25 PPM THROUGHOUT THE LINES.
AFTER A MINIMUM OF 24 HOURS, CHLORINE RESIDUAL SHALL BE A MINIMUM OF 10 PPM.
LINES SHALL BE FLUSHED VIGOROUSLY UNTIL DISCHARGE IS CLEAN AND RESIDUAL IS BELOW 1 PPM.
THE CITY SHALL VERIFY ALL CHLORINE RESIDUALS.
BACTERIAL SAMPLES SHALL THEN BE DRAWN AND SENT TO A CITY-APPROVED LABORATORY FOR TESTING.
IF SAMPLE DOES NOT PASS, REPEAT PROCEDURE.
IF SAMPLE PASSES TO SATISFACTION OF CITY, PRESSURE AND LEAKAGE TESTING MAY PROCEED.
OTHER DISINFECTION METHODS MAY BE USED IF APPROVED BY THE CITY.
CITY SHALL DESIGNATE NUMBERS & LOCATIONS OF ALL TESTS, AS JOB CONDITIONS DICTATE.

WATER LINE PRESSURE\STRENGTH TESTING

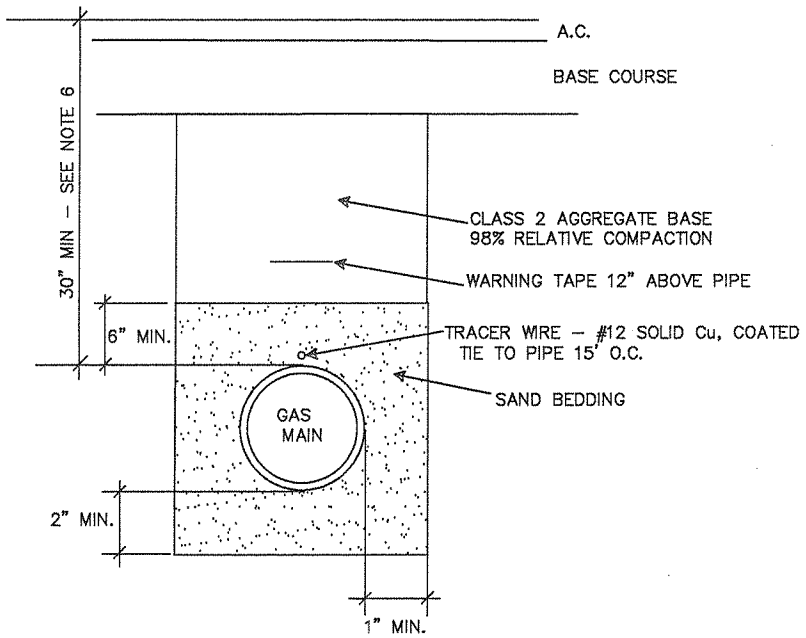
INSTALLER SHALL PROVIDE ALL NECESSARY PUMPS AND TESTING EQUIPMENT.
ALL PRESSURE TESTING PROCEDURES SHALL BE OBSERVED BY THE CITY.
LINE MUST MAINTAIN A PRESSURE OF 150 PSI FOR TWO HOURS, UNLESS OTHERWISE SPECIFIED BY CITY.

WATER LINE LEAKAGE TESTING

LEAKAGE TESTING MAY BE WAIVED BY CITY IF PRSSURE TEST INDICATES NEGLIGIBLE LOSS IN PRESSURE.
IF REQUIRED, LEAKAGE TESTING SHALL BE PERFORMED AT APPROXIMATE NORMAL OPERATING PRESSURE.
TEST SHALL BE A MINIMUM OF TWO HOURS IN DURATION.
ALLOWABLE LEAKAGE RATE SHALL BE AS RECOMMENDED BY THE PIPE SUPPLIER.
TYPICALLY FOR C900 PVC, ALLOWABLE LEAKAGE PER 50 JOINTS AT 100 PSI WOULD BE:

- 0.27 GALLONS PER HOUR FOR 4" PIPE
- 0.41 GALLONS PER HOUR FOR 6" PIPE
- 0.54 GALLONS PER HOUR FOR 8" PIPE
- 0.68 GALLONS PER HOUR FOR 10" PIPE
- 0.81 GALLONS PER HOUR FOR 12" PIPE

REVISIONS	DISINFECTION & TESTING	
12-1-08	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W-13
	RESOLUTION 13-4932	



NOTES

1. SAND SHALL BE FREE FROM CLAY AND/OR ORGANIC MATERIAL, SUITABLE FOR THE PURPOSE INTENDED, AND AS APPROVED BY THE CITY. SAND SHALL BE OF SUCH SIZE THAT NINETY (90) PERCENT TO ONE HUNDRED (100) PERCENT SHALL PASS A NO. 4 SIEVE, AND NOT MORE THAN FIVE (5) PERCENT WILL PASS A NO. 200 SIEVE.

2. AGGREGATE BASE MATERIAL SHALL CONFORM TO SECTION 26 OF THE CALIFORNIA STANDARD SPECIFICATIONS. THE BASE SHALL BE 3/4" MAXIMUM GRADING. BASE MATERIAL SHALL BE BROUGHT UP IN MOISTENED LAYERS NOT TO EXCEED 6" AND COMPACTED BY MECHANICAL MEANS TO 98% RELATIVE MAXIMUM DENSITY.

3. EXISTING ASPHALT CONCRETE SHALL BE SAW CUT AND REMOVED. REPLACEMENT SHALL CONFORM TO CITY STANDARD DETAIL S–4.

4. LANE CLOSURES SHALL CONFORM TO CITY STANDARD DETAIL S–20.

5. INSPECTION IS REQUIRED AT TIME PIPE IS LAID AND PRIOR TO INSTALLATION OF ASPHALT. A FINAL INSPECTION SHALL BE PERFORMED AFTER PLACEMENT OF ASPHALT.

6. DEPTHS FOR JOINT TRENCH INSTALLATIONS MAY NEED TO INCREASE. LAYOUT OF JOINT TRENCHES MUST BE APPROVED BY CITY. REFER TO DETAIL W–7.

REVISIONS	GAS TRENCH	
	CITY OF SUSANVILLE	
	APPROVED MARCH 6, 2013	W–14
	RESOLUTION 13–4932	