

PUBLIC IMPROVEMENT QUANTITIES

SECTION 2		
1.	Lot Enhancement Grading for Phase IIC-2	Lump Sum
2.	Constr. Layout & Staking	Lump Sum

DEVELOPER INFORMATION

UTILITY PROVIDERS



ICINITY MAP



AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535

A circular professional engineer seal for Rick S. Hammond, State of Idaho. The seal contains the text: "PROFESSIONAL ENGINEER", "REGISTERED", "#2102", "STATE OF IDAHO", and "RICK S. HAMMOND". A blue ink signature "Rick S. Hammond" is written across the seal, and the date "10/26/21" is written below it.

C0.1	CITY INSPECTION CHECKLIST
C1	GENERAL NOTES & DETAILS
C2	EXISTING CONDITIONS PLAN
C3	SITE DEVELOPMENT PLAN
C4	SITE GRADING AND CONSTRUCTION EROSION & SEDIMENT CONTROL PLAN
C5	FRANCHISE UTILITIES PLAN - AVISTA
C6	INTERSECTION DETAILS
C7	18TH STREET PLAN & PROFILE
C8	CANYON CREST WAY PLAN & PROFILE
C9	CANYON CREST WAY X-SECTIONS
C10	STANDARD DRAWINGS
C11	STANDARD DRAWINGS
C12	STANDARD DRAWINGS
C13	STANDARD DRAWINGS
C14	STANDARD DRAWINGS
C15	18TH STREET RETAINING WALL
C16	LOT GRADING PLAN
C17	LOT GRADING X-SECTIONS

AS-CONSTRUCTED SET

**ESTATES AT CANYON CREST
PHASE IIIC-1
RPL DEVELOPMENT, LLC
LEWISTON, IDAHO**



HAMMOND ENGINEERING & DEVELOPMENT CO.
23020 Penny Lane, Juliaetta, Idaho 83535
(208) 942-2993

C0.0

CITY INSPECTION CHECKLIST

NOTE: The City of Lewiston reserves the right for 3rd party verification, inspection, and/or testing prior to infrastructure acceptance. Payment for the services of 3rd party will be the responsibility of the City of Lewiston unless items verified, inspected, and/or tested indicate non-conformance, will be the responsibility of developer/contractor.					
ITEM	MATERIAL	TEST / STANDARD	ACCEPTANCE	TEST FREQUENCY	INSPECTOR/CO.
1. ALL UTILITY TRENCHES & STRUCTURES					
TRENCH SUBGRADE	Native (6" to 8" Lifts Max.)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	90% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].	ALLWEST
PIPE BEDDING	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOTM41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].	ALLWEST
1st FOOT [12"] OF FILL OVER PIPE	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOTM41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].	ALLWEST
TRENCH BACKFILL UNDER PROPOSED ROAD & SIDEWALK	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOTM41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].	ALLWEST
STRUCTURAL FILLS	As Spec'd by Engineer	As Spec'd by Engineer		As Spec'd by Engineer	ALLWEST
2. STORM DRAIN MAINS					
GASKETED PE Storm Sewer Pipe	Polyethylene, ADS N-12 or Equal		Certified & Visual by City		Certified & Visual by City
ALIGNMENT AND GRADE	N/A	Per Manufacturer's Instructions		Per Plan	
JOINTS (Deflection/Proper Pipe Embedment)	N/A	Per Manufacturer's Instructions		Each Joint	
PRESSURE TEST	N/A	4 PSI for 15 Minutes, 1/2 PSI Drop	If required by City Engineer	Between Access Holes	
MANHOLES	Concrete	City Standard		N/A	Certified & Visual by City
VIDEO INSPECTION	N/A		Public Works Policy No 2012-2		
3. WATER MAINS					
DUCTILE IRON or PVC WATER MAIN	AWWA C-151, C-900, C-905 (Class as Req'd)		Certified & Visual by City		L.O.I.D.
ALIGNMENT AND GRADE	N/A	AWWA C-600, AWWA C-605		Per Plan	
JOINTS (Deflection/Proper Pipe Embedment)	N/A	AWWA C-600, AWWA C-605		Each Joint	
THRUST BLOCKS	Concrete, 2500 PSI Mix	Per Approved Planter City Sid Dwg #4-4.		Each Joint	
HYDROSTATIC PRESSURE	N/A	2 Hrs, NTE Allowable Leakage Per AWWA C-600, AWWA C-605		150% Working Pressure	L.O.I.D.
CHLORINATION/BACTERIA	N/A	AWWA C-651		OR 15 times the Working Pressure in the Water System Bacterial Testing: two negative testing samples 24 hours apart	L.O.I.D.
4. WASTEWATER MAINS					
PVC WASTEWATER MAIN	PVC, SDR 35	ASTM 3034		N/A	Certified & Visual by City
ALIGNMENT AND GRADE	N/A			Per Plan	Certified & Visual by City
JOINTS (Deflection/Proper Pipe Embedment)	N/A	Per Manufacturer's Instructions		Each Joint	Certified & Visual by City
MANHOLES	Concrete	Hydrostatic Test		Each Joint	Certified & Visual by City
PRESSURE TEST	N/A	4 PSI for 15 Minutes, 1/2 PSI Drop		Between Access Holes	Certified & Visual by City
VIDEO INSPECTION	N/A	No Perforations, Dents or Dimples, No Bellies > 0.02'	Public Works Policy No 2012-2	Between Access Holes	CONTRACTOR
Sections 5 thru 11 on Page 2 of 2					
Date Last Revised December 2017					

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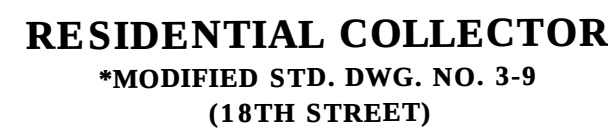
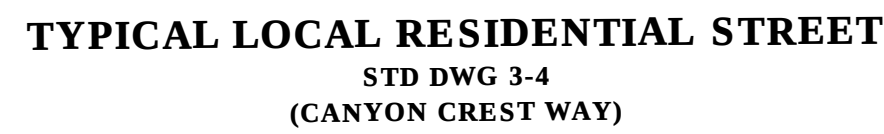
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AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535



 HAMMOND ENGINEERING & DEVELOPMENT CO. 23020 Penny Lane, Shalimar, Idaho 83355 (208) 590-5555	THE ESTATES AT CANYON CREST PHASE III-C-1 RPL DEVELOPMENT, LLC LEWISTON, IDAHO										ENGINEER LAND SURVEYOR REGISTERED #2102 03-26-21 2/2/21 PROFESSIONAL 2/2/21									
	SCALE		SHEET SIZE		D		REV		DATE		LTR		CHECKED		APPRO.					
	DRAWN BY		CHECKED BY		DATE		JOB #													
	MEE				03-26-21		2022													
	SHEET		C0.1																	
	DRAWING #		2022-C0.1																	



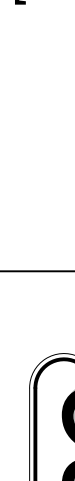
- ## NOTES:
1. ALL EARTHWORK SHALL BE COMPACTED TO 95% OF AASHTO 1.99 PROCTOR VALUE.
 2. ALL POTABLE WATER LINES RUNNING FROM MAIN TO METERS WILL BE 1" AND METERS WILL BE 3/4" TYP.
 3. SANITARY SEWERS SHALL HAVE 3.0' MIN. COVER & SERVICE LATERALS SHALL HAVE 2.0' MIN. GRADE. STORM DRAINS SHALL HAVE 2.0' MIN. COVER
 6. ALL WORK DONE WITHIN CITY RIGHT OF WAY TO BE DONE IN ACCORDANCE WITH CITY STANDARDS.
 7. WATER MAIN PIPING, VALVES, FIRE HYDRANTS AND WATER METERS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH L.O.I.D. STANDARDS.
 8. SANITARY SEWER PIPING AND MANHOLES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH CITY OF LEWISTON STANDARDS.
 9. CITY OF LEWISTON IS RESPONSIBLE FOR SANITARY SEWER INSPECTION.
 10. ALL AVISTA CONDUITS WILL BE SCHEDULE 40 GRAY ELECTRICAL CONDUIT (LARGE SWEEPS, LONG COUPLERS)
 11. A RIGHT-OF-WAY PERMIT SHALL BE OBTAINED THROUGH THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY WORK WITHIN PUBLIC RIGHT-OF-WAY.
 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UNDERGROUND UTILITIES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGES AT NO ADDITIONAL COST TO THE OWNER. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE PROJECT DRAWINGS ARE APPROXIMATE AND BASED ON RECORDS AND FIELD SURVEYS. THE NUMBER AND LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. FOR YOUR SAFETY, STATE LAW REQUIRES THAT THE CONTRACTOR SHALL CALL 811 "CALL BEFORE YOU DIG" FOR UTILITY FIELD LOCATIONS PRIOR TO COMMENCING EXCAVATION ON SITE. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE RELEVANT UTILITY COMPANIES
 13. SITE DISTANCES FOR ABUTTING PROPERTIES, DRIVEWAYS AND INTERSECTIONS SHALL BE MAINTAINED.
 14. ALL CONSTRUCTION NOT SPECIFICALLY MENTIONED OR SHOWN SHALL CONFORM TO CITY ORDINANCES AND STANDARDS AND L.O.I.D. STANDARD DRAWINGS & TECHNICAL SPECS.
 15. A SWPPP & NOI IS REQUIRED FOR THIS PROJECT. THE CONTRACTOR SHALL REFERENCE THE STORMWATER POLLUTION PREVENTION MANUAL (SWPPP) FOR ALL EROSION CONTROL, PROCEDURES ON SITE.
 16. L.O.I.D. IS RESPONSIBLE FOR WATERMAIN INSPECTION.
 17. ALL UNDERGROUND UTILITIES MUST BE CONSTRUCTED AND APPROVED PER EACH UTILITY PROVIDER (INCLUDING VIDEO IF REQUIRED) PRIOR TO PAVING.
 18. ALL PAVING BASE MATERIAL MUST BE INSPECTED AND APPROVED AT LEAST 24 HOURS IN ADVANCE OF PAVING. INCLUDING DENSITY TESTING AND GRADE CHECKS.
 19. CITY INSPECTION REQUIRES 24 HOUR NOTICE.

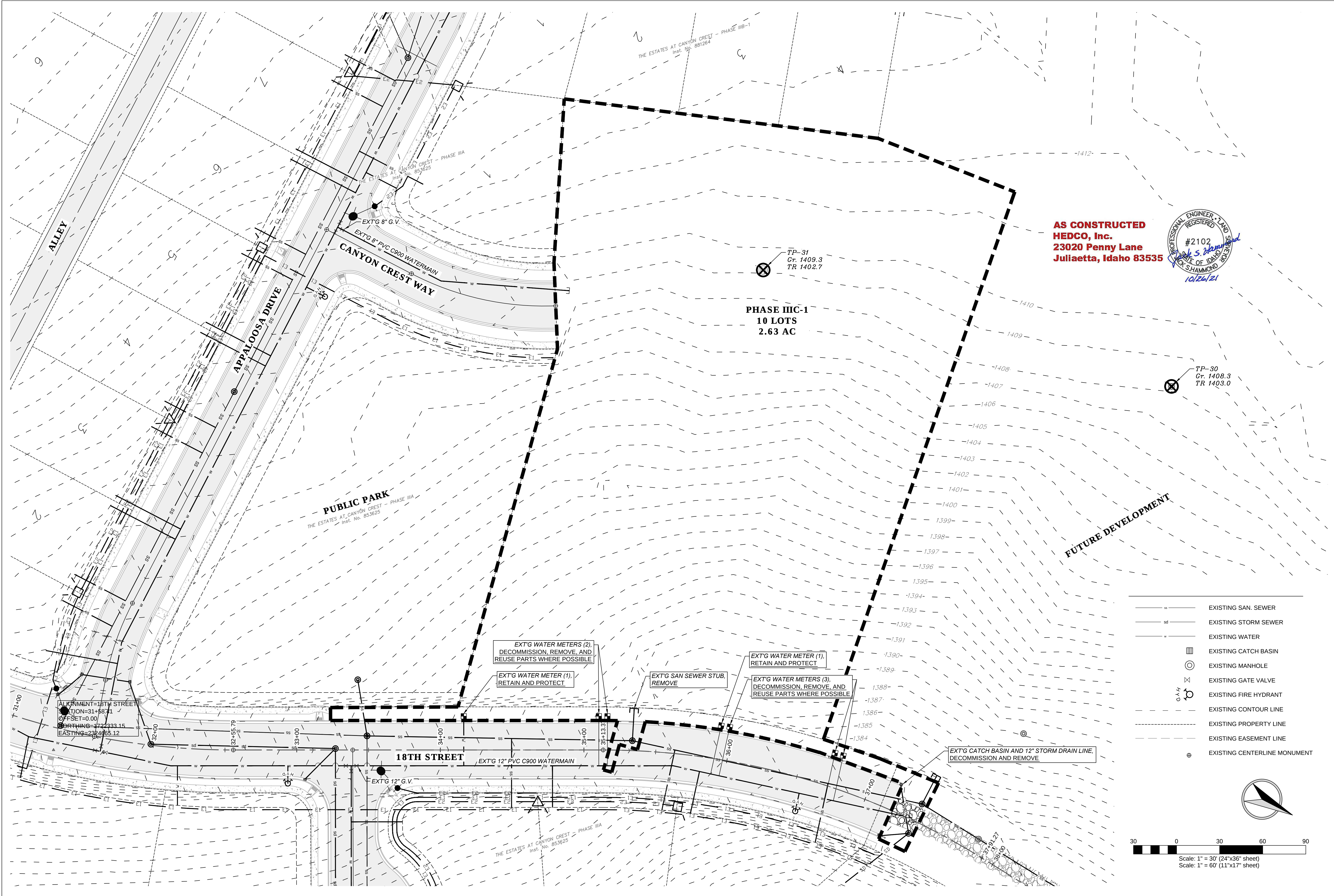
The diagram illustrates a vertical cross-section of a well casing. At the top, a horizontal line is labeled "GROUND SURFACE". Below this, the casing is divided into four horizontal sections labeled "ZONE 1", "ZONE 2", "ZONE 3", and "ZONE 4" from top to bottom. A horizontal line labeled "POTABLE LINE" is positioned between Zone 1 and Zone 2. Another horizontal line labeled "NON-POTABLE LINE" is positioned between Zone 2 and Zone 3. Two vertical arrows, each labeled "18\"", indicate the height of Zone 2 above the Non-Potable Line and the height of Zone 3 below the Non-Potable Line. A small circle is shown in Zone 1, and a small square is shown in Zone 2.

Sewage Force Mains shall have at least eighteen inches of clearance from Potable Water mains and Zones 2 and 3 placements are prohibited. Separation requirements also apply to Potable and Non-Potable service lines controlled by the system owner and extending to the property line, service meter, or cleanout. Refer to IDAPA 58.1.08.542.07: Idaho Rules for Public Drinking Water Systems and IDAPA 58.01.16.430.0: Idaho Wastewater Rules.

The diagram illustrates a water distribution system with two vertical main lines: a 'POTABLE LINE' on the left and a 'NON-POTABLE LINE' on the right. A horizontal line connects them, divided into four segments labeled 'ZONE 1', 'ZONE 2', 'ZONE 3', and 'ZONE 1' from left to right. A double-headed arrow below the 'ZONE 2' and 'ZONE 3' segments indicates a '10' MIN.' isolation time. The 'POTABLE LINE' has a valve symbol at the top, and the 'NON-POTABLE LINE' has a valve symbol at the top.

* For Mains and Services, Design Engineer to submit data to Department for review and approval that this intallation will protect public health and environment and non-potable line constructed with potable water class pipe.

 HAMMOND ENGINEERING & DEVELOPMENT CO. 23020 Penny Lane, Juliaetta, Idaho 83535 (208) 643-9903		THE ESTATES AT CANYON CREST PHASE III-C-1 NOTES & DETAILS RPL DEVELOPMENT, LLC LEWISTON, IDAHO				SCALE DRAWN BY MEE DATE 03-26-21	SHEET SIZE D CHECKED BY JSH JOB # 2022		REV DATE DESCRIPTION REVISION	CHECKED APPD.	
SHEET		C1									



AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535



THE ESTATES AT CANYON CREST
PHASE III-C-1
EXISTING SITE PLAN
RPL DEVELOPMENT, LLC
LEWISTON, IDAHO

HAMMOND ENGINEERING & DEVELOPMENT CO.
23020 Penny Lane, Juliaetta, Idaho 83535
(208) 943-5025

SCALE
1"=30'
DRAWN BY
MEE
DATE
02-02-21
SHEET
C2
DRAWING #
2022-C2

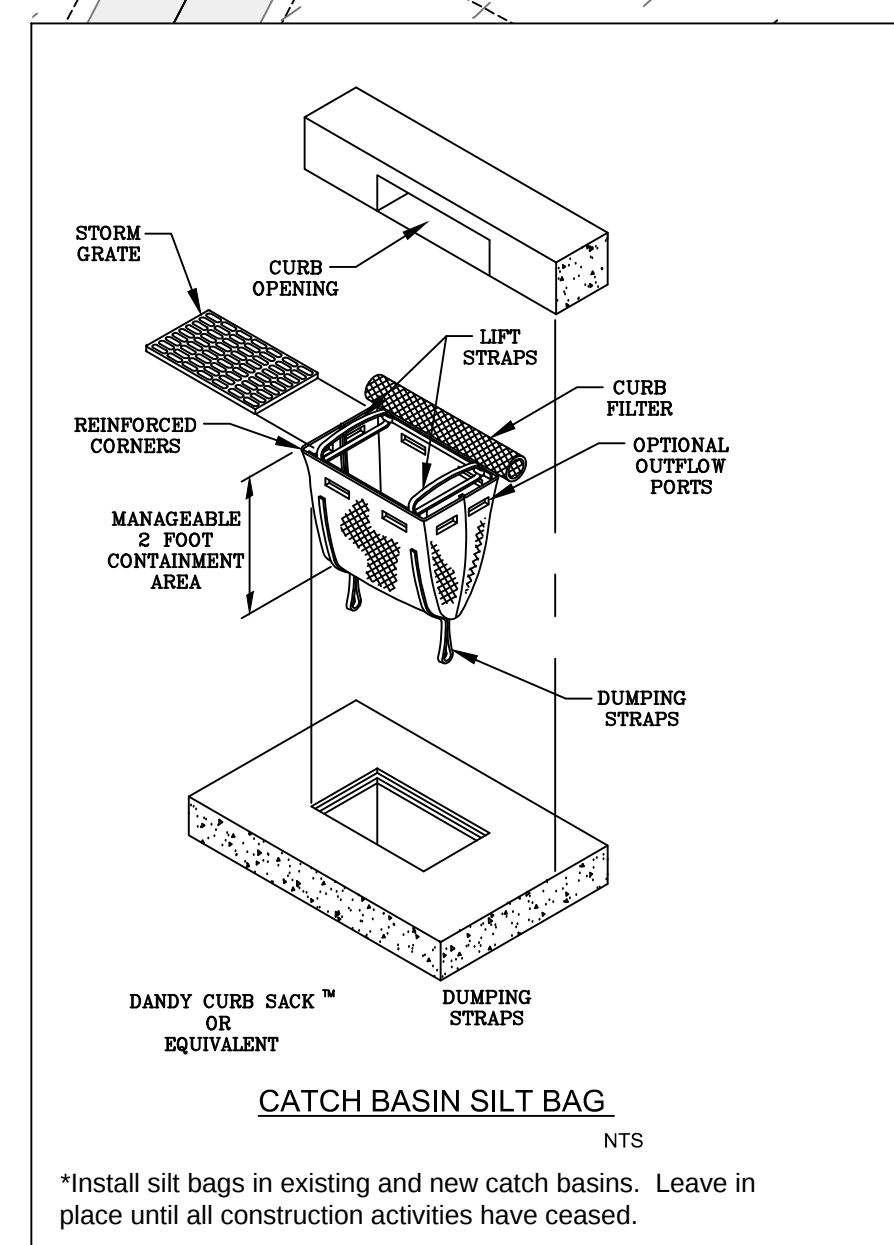
PROFESSIONAL ENGINEER, LAND SURVEYOR
REGISTERED
#2102
MARK S. HAMMOND
STATE OF IDAHO
10/26/21

PROFESSIONAL ENGINEER, LAND SURVEYOR
REGISTERED
#2102
MARK S. HAMMOND
STATE OF IDAHO
10/26/21

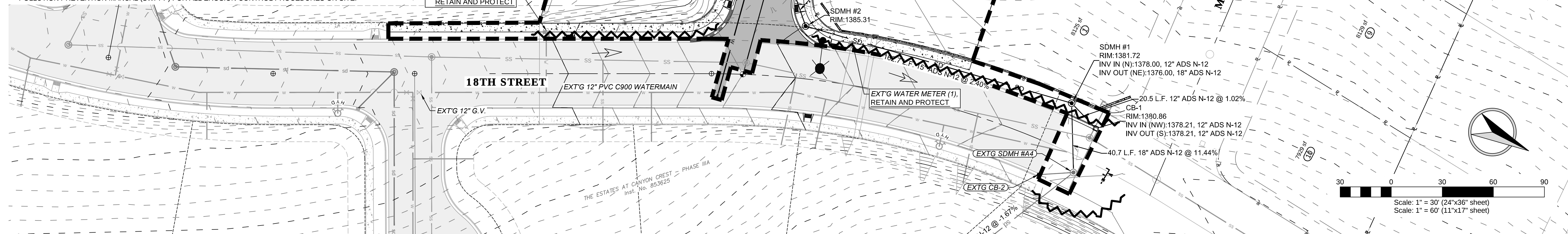
REVISION
DESCRIPTION
DATE
LTR

APPD

C2



1. SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE INSPECTED BY QUALIFIED PERSONNEL. INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY 14-CALENDAR DAYS AND WITHIN 24 HOURS AFTER A STORM EVENT OF 0.5 INCHES OR GREATER. AN INSPECTION REPORT SHALL BE COMPLETED FOR EACH INSPECTION. ALL INSPECTIONS AND THE INSPECTION REPORT SHALL BE IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN.
2. EROSION AND DUST CONTROL MEASURES MUST BE USED DURING CONSTRUCTION TO REDUCE OR ELIMINATE BLOWING DUST, EXCESSIVE RUNOFF AND SOIL EROSION ACROSS PROPERTY LINES AND INTO STREETS AND RIGHT-OF-WAY, AND TO ELIMINATE TRACKING OF SOIL AND MUD ONTO STREETS FROM CONSTRUCTION EQUIPMENT AND VEHICLES. THE CONTRACTOR IS RESPONSIBLE FOR STREET CLEANUP AT THE END OF EACH SHIFT.
3. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL GUIDELINES
4. A SWPPP & NOI IS REQUIRED FOR THIS PROJECT. THE CONTRACTOR SHALL REFERENCE THE STORMWATER POLLUTION PREVENTION MANUAL (SWPPP) FOR ALL EROSION CONTROL PROCEDURES ON SITE.



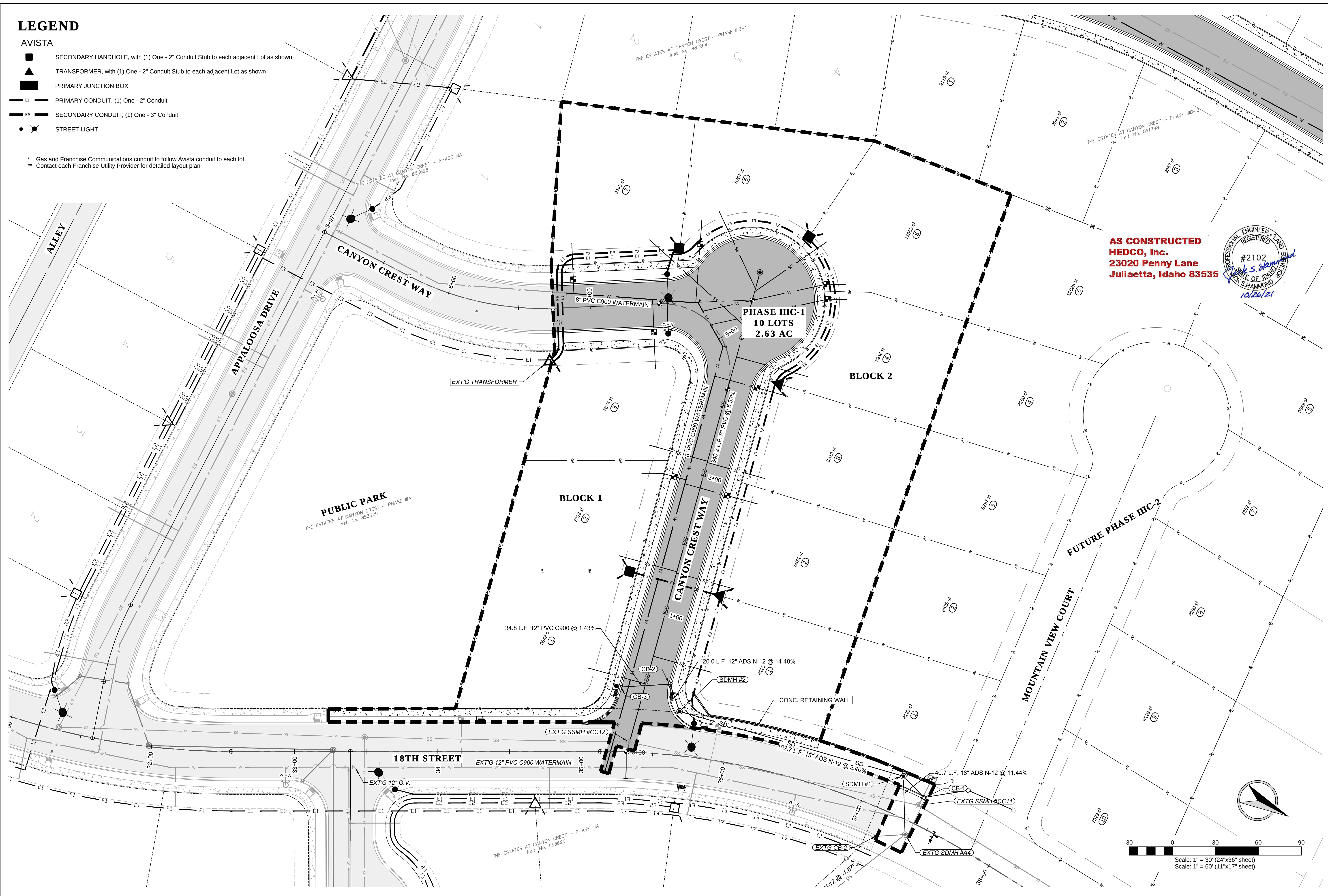
AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535

[illegible]

AVISTA

	SECONDARY HANDHOLE, with (1) One - 2" Conduit Stub to each adjacent Lot as shown
	TRANSFORMER, with (1) One - 2" Conduit Stub to each adjacent Lot as shown
	PRIMARY JUNCTION BOX
	PRIMARY CONDUIT, (1) One - 2" Conduit
	SECONDARY CONDUIT, (1) One - 3" Conduit
	STREET LIGHT

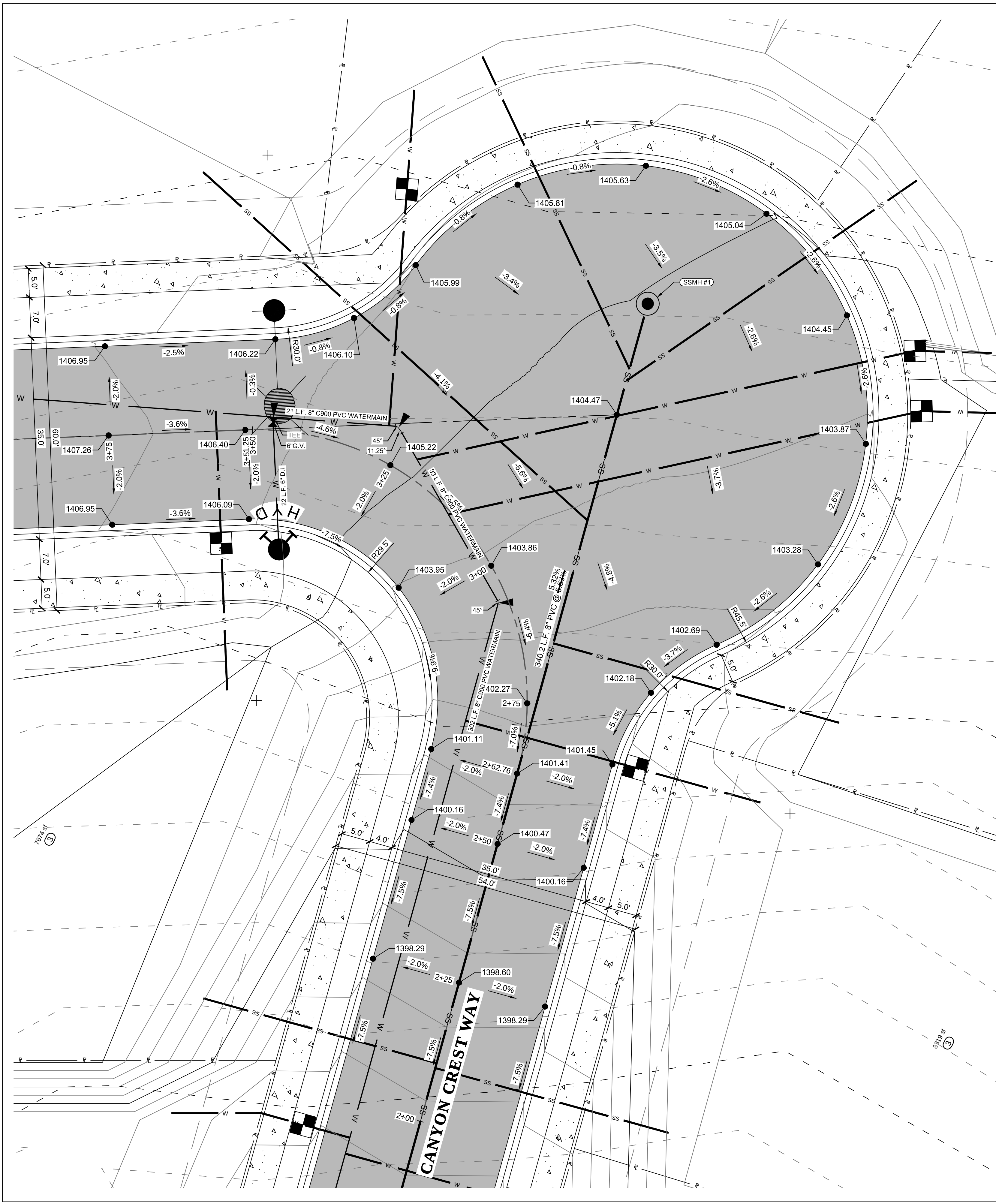
* Gas and Franchise Communications conduit to follow Avista conduit to each lot
** Contact each Franchise Utility Provider for detailed layout plan



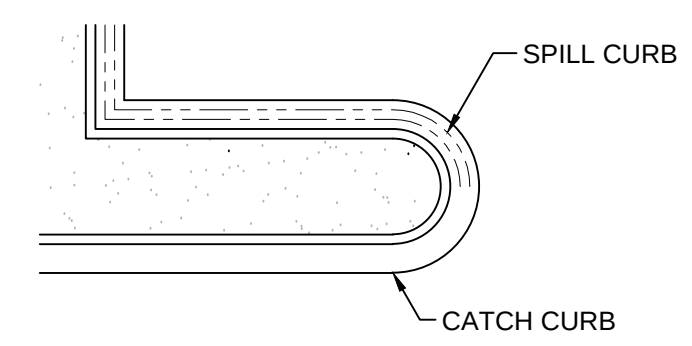
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Juliaetta, Idaho 83535



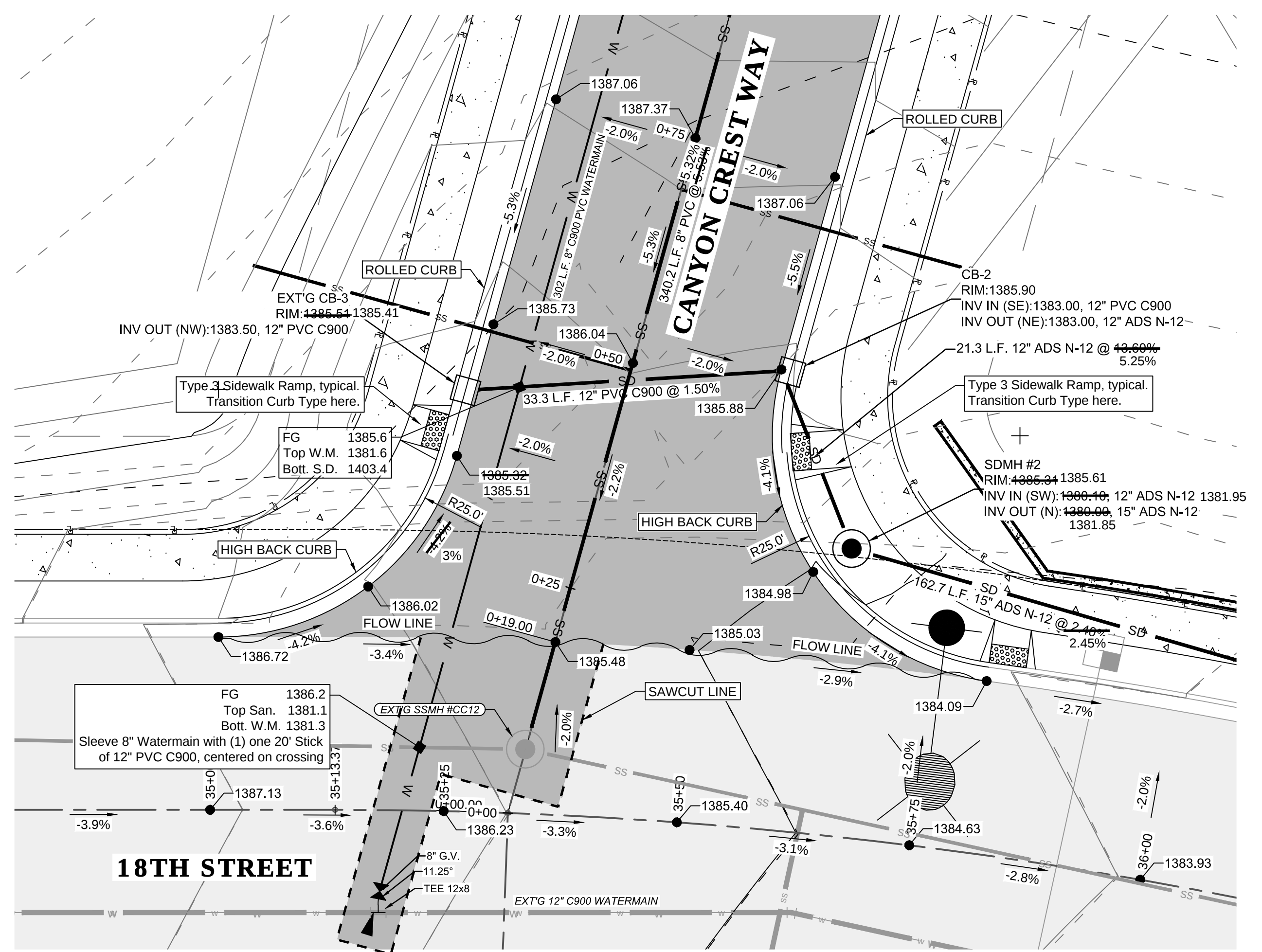
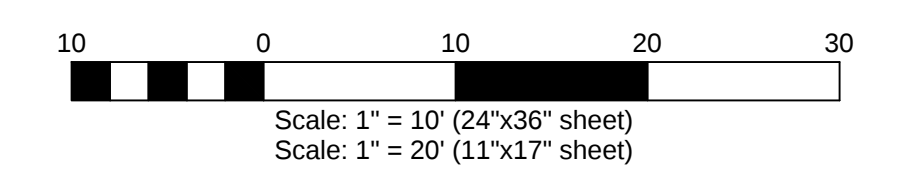
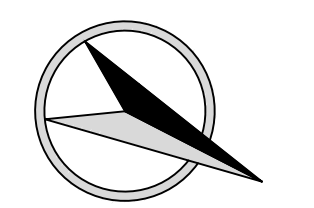
	THE ESTATES AT CANYON CREST PHASE IIC-1 FRANCHISE UTILITIES PLAN - AVISTA RPL DEVELOPMENT, LLC LEWISTON, IDAHO										SCALE 1"=30' DRAWN BY JSH CHECKED BY MEE DATE 03-26-21 SHEET C5 DRAWING # 2022-C5		PROFESSIONAL ENGINEER, LAND SURVEYOR REGISTERED #2102 State of Idaho 2/2/21		REVISION DESCRIPTION REV DATE B 04-12-21 Rev. Cont. Resurfacing Wall, Added Drain Line to Retaining Wall, Moved Wall to Retain ROW Line		CHECKED	APPD
	SHEET												C5					



- NOTES:
1. ALL SIGNING AND STRIPING SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) AND BE AT THE DIRECTION OF THE CITY OF LEWISTON, PUBLIC WORKS DEPARTMENT
 2. OPEN FACE (SPILL CURB) GUTTER SHALL BE CONSTRUCTED WHERE DRAINAGE IS DIRECTED AWAY FROM CURB.
 3. TRANSITIONS FROM OPEN FACE TO STANDARD CURB AND GUTTER ARE TO BE SMOOTH, HAND FORM THESE AREAS IF NECESSARY.
 4. OPEN FACE GUTTER LOCATIONS ARE INDICATED BY SHADING AND NOTES ON THE GRADING PLAN.



AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535



REVISION		DATE	DESCRIPTION	CHECKED	APPD.
A	02-28-21		Revised as per IDEQ review comments dated 2-26-2021.		
B	04-12-21		Rev. Conc. Retaining Wall, Added Drain Line to Retaining Wall.		
			Moved Wall to behind ROW Line		

ENGINEER	LAND SURVEYOR	PROFESSIONAL
REGISTERED	REGISTERED	REGISTERED
#2102	#2102	#2102
DAVID S. HAMMOND	DAVID S. HAMMOND	DAVID S. HAMMOND
STATE OF IDAHO	STATE OF IDAHO	STATE OF IDAHO
10/26/21	3/7/21	3/7/21

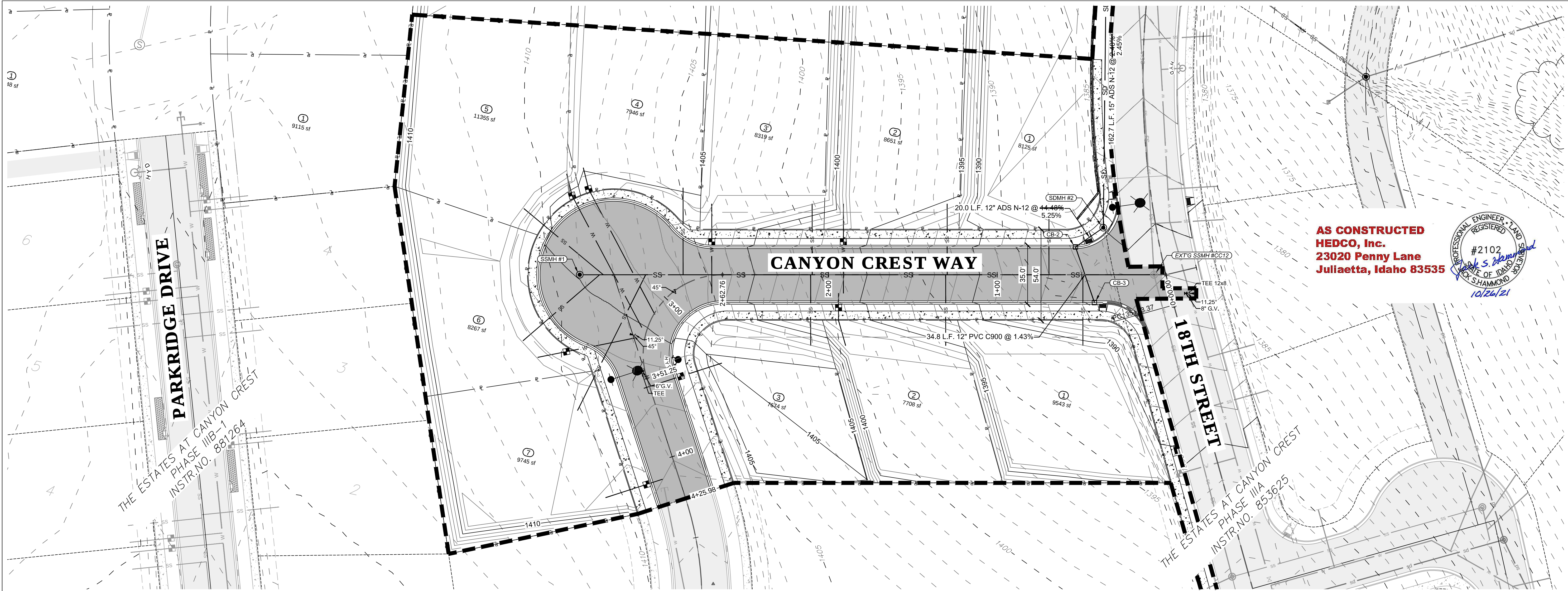
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SCALE	1"=10'	2022-C6
DRAWN BY	MEE	
CHECKED BY	JSH	
DATE	02-02-21	
SHEET	C6	
DRAWING #		

HEDCO

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23020 Penny Lane, Juliaetta, Idaho 83535
(208) 942-5023

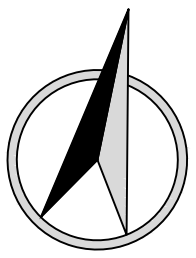
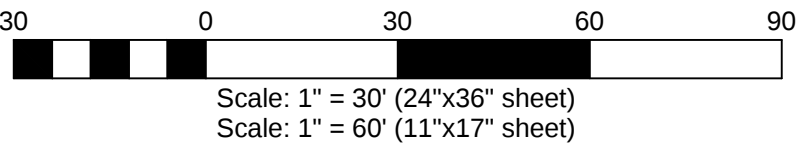
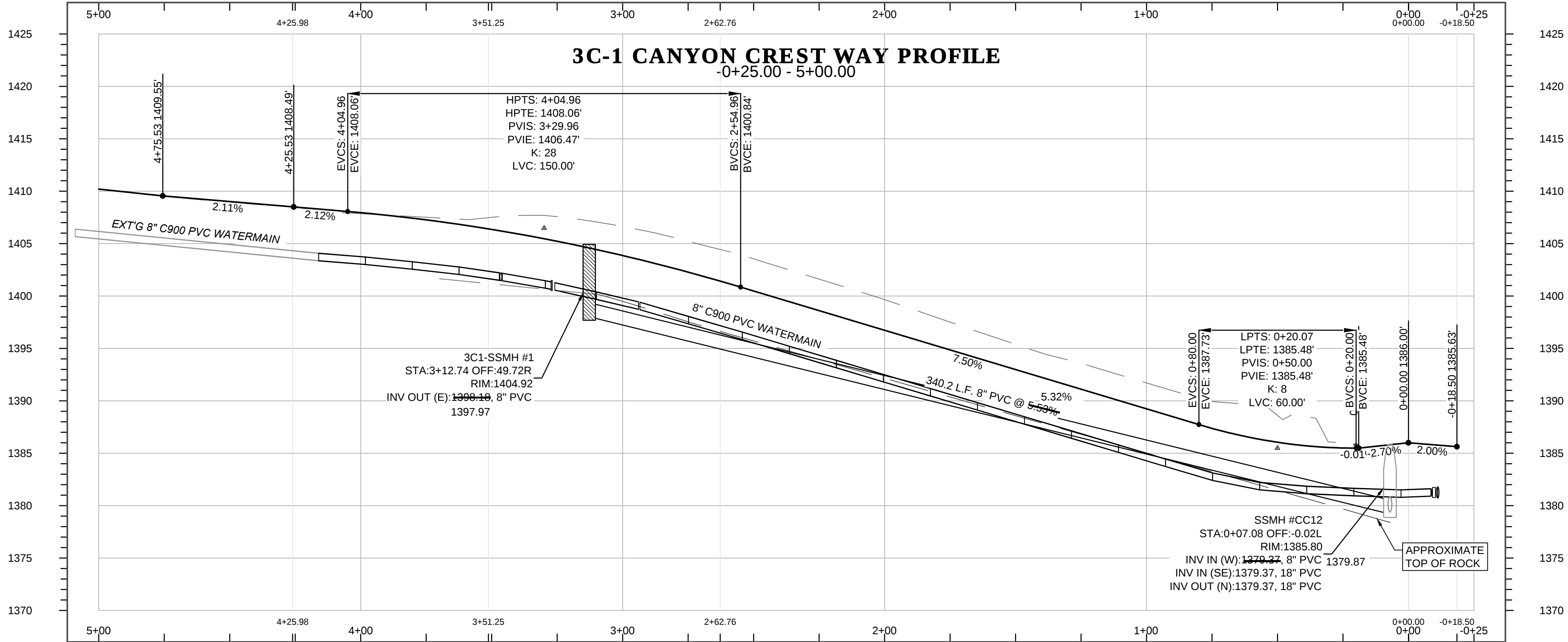
THE ESTATES AT CANYON CREST - PHASE III-C-1
SINTERSECTION DETAILS
RPL DEVELOPMENT, LLC
LEWISTON, IDAHO

C6



AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535

PROFESSIONAL ENGINEER - LAND SURVEYOR
#2102
J. S. HAMMOND
STATE OF IDAHO
10/26/21



REVISION		DATE	DESCRIPTION	CHECKED	APPD.
A		03-26-21	Revised as per IDEQ review comments dated 3-26-2021		
B		04-12-21	Rev. Conc. Retaining Wall. Added Drain Line to Retaining Wall.		
			Moved Wall to behind ROW Line		

ENGINEER - LAND SURVEYOR	REGISTERED	#2102	J. S. HAMMOND	STATE OF IDAHO	3/7/21
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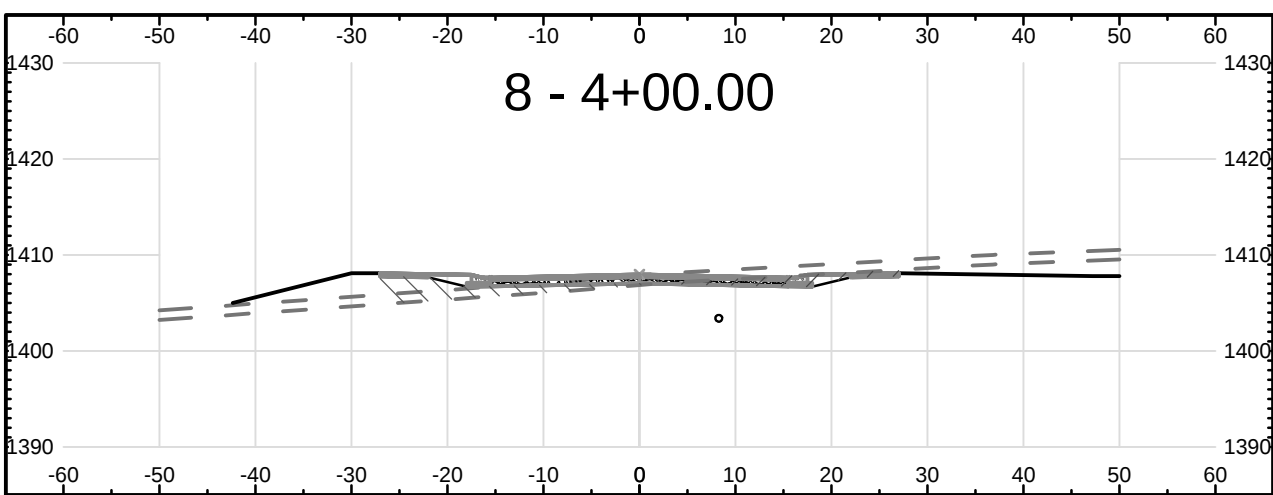
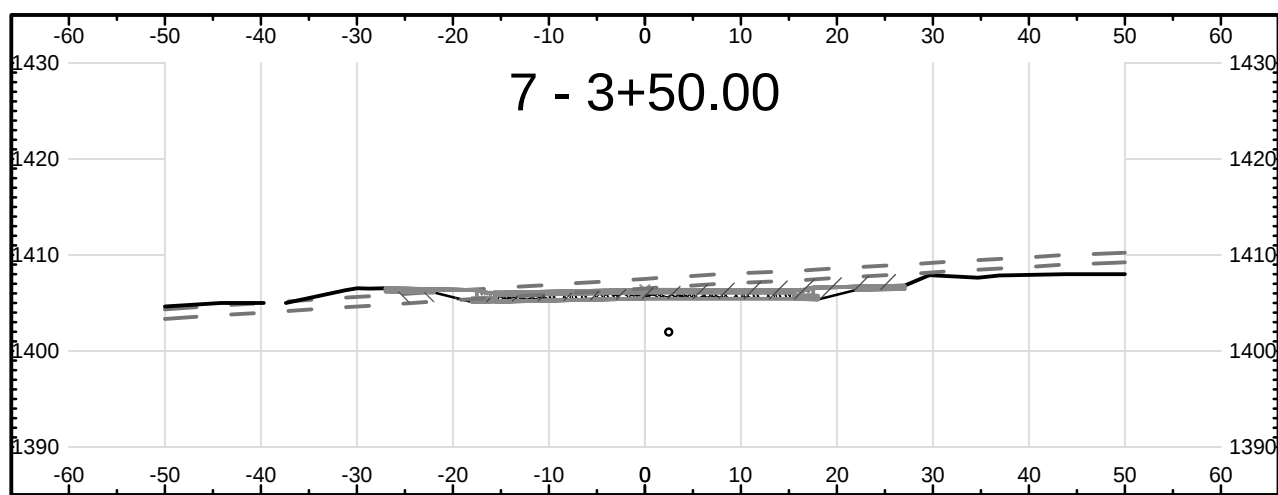
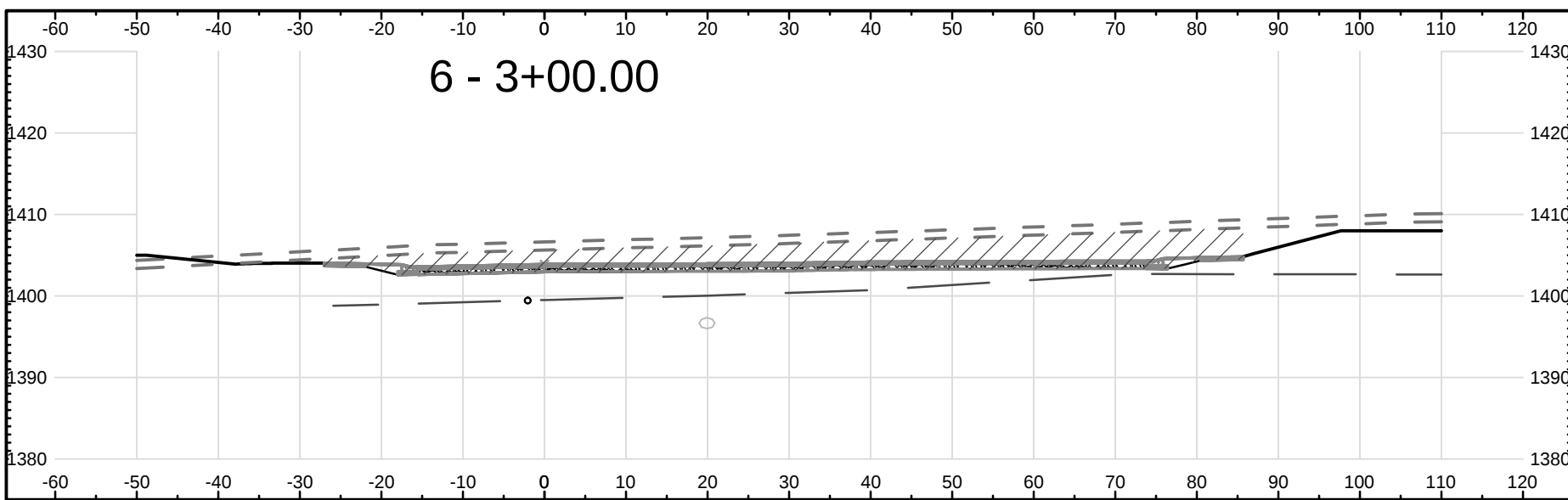
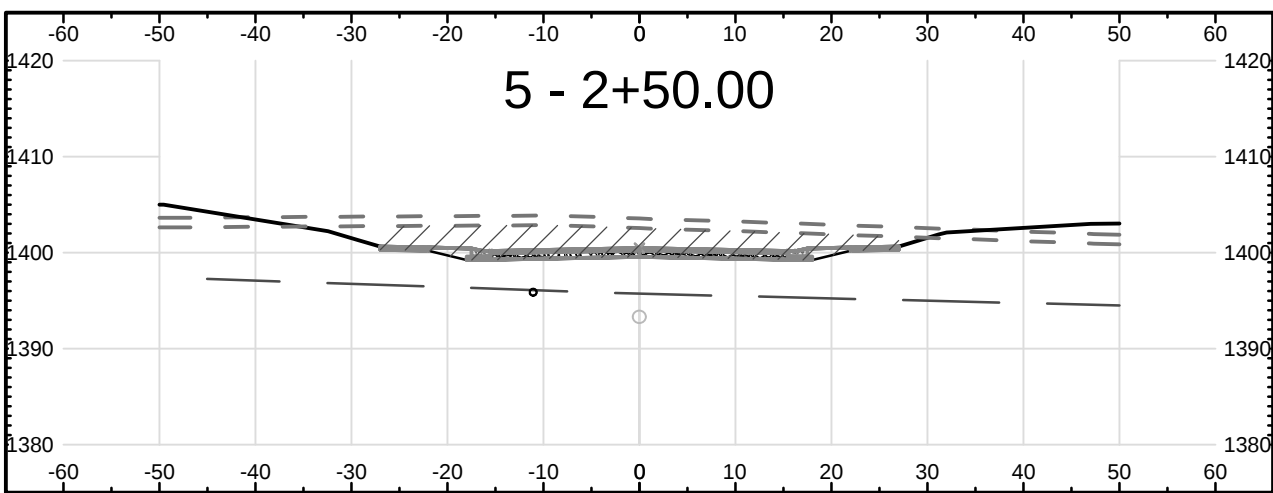
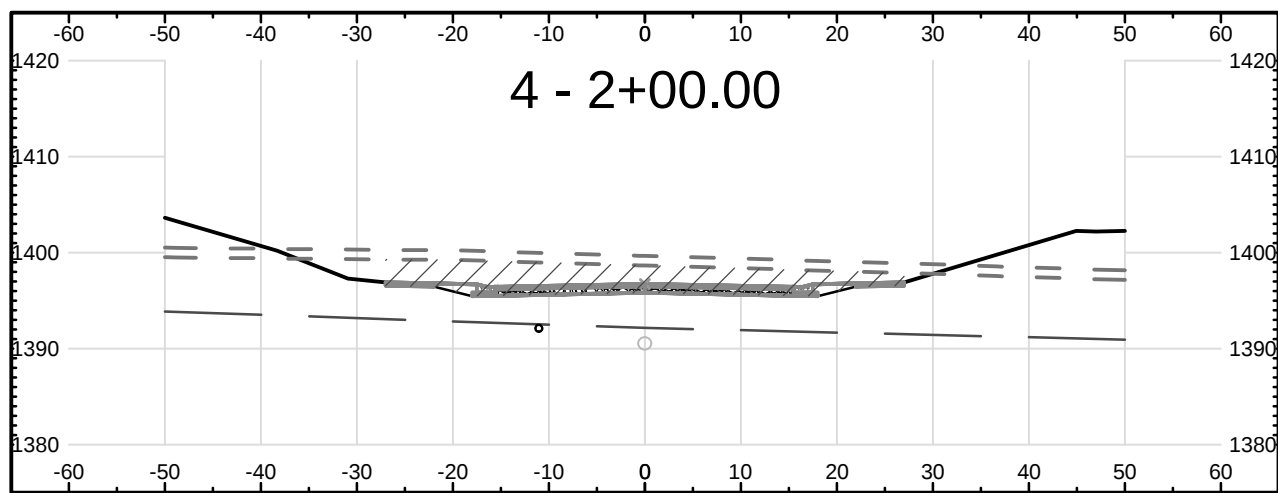
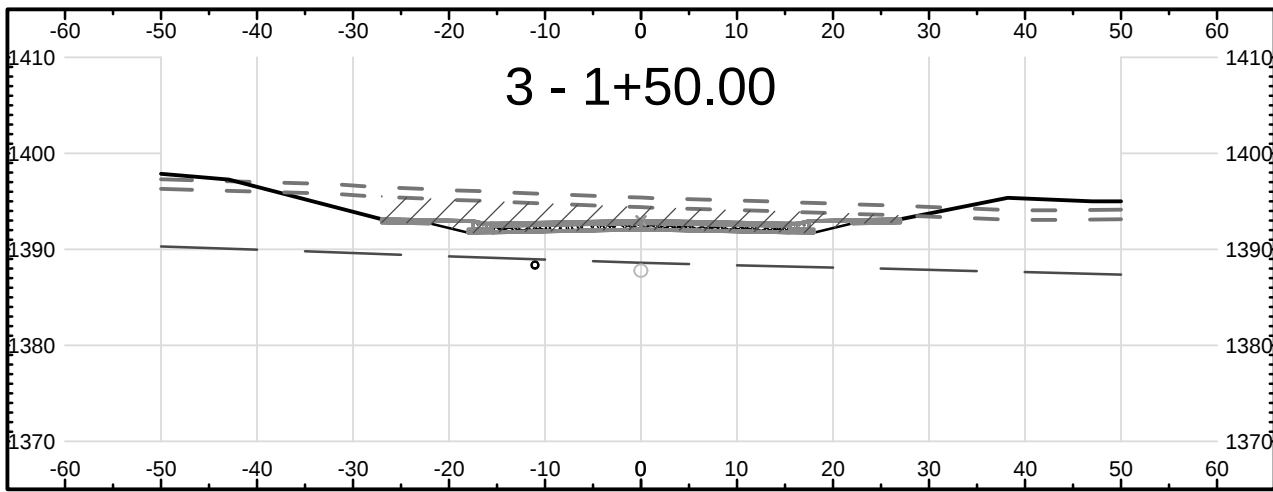
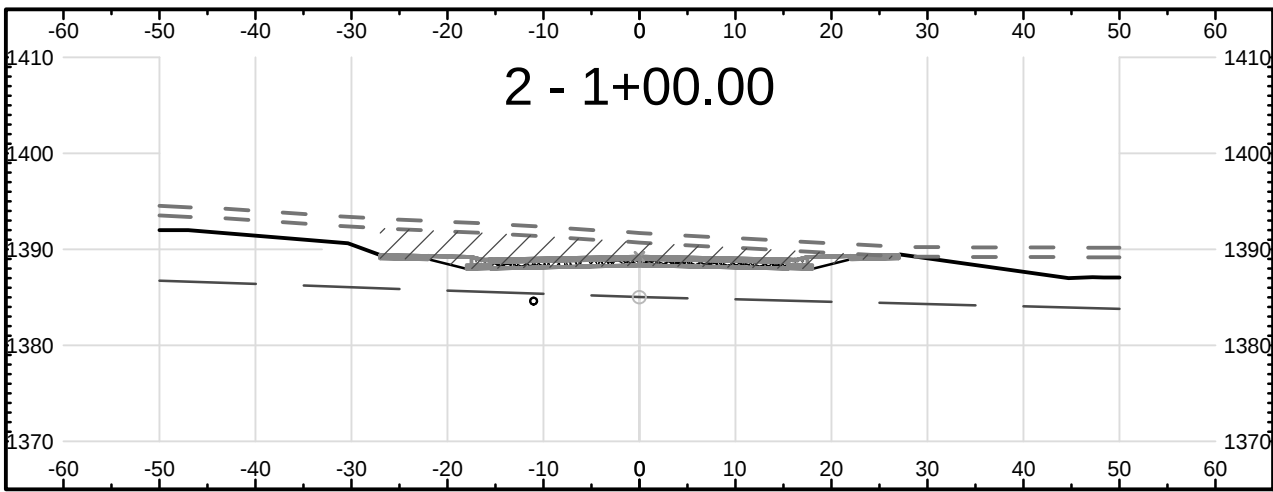
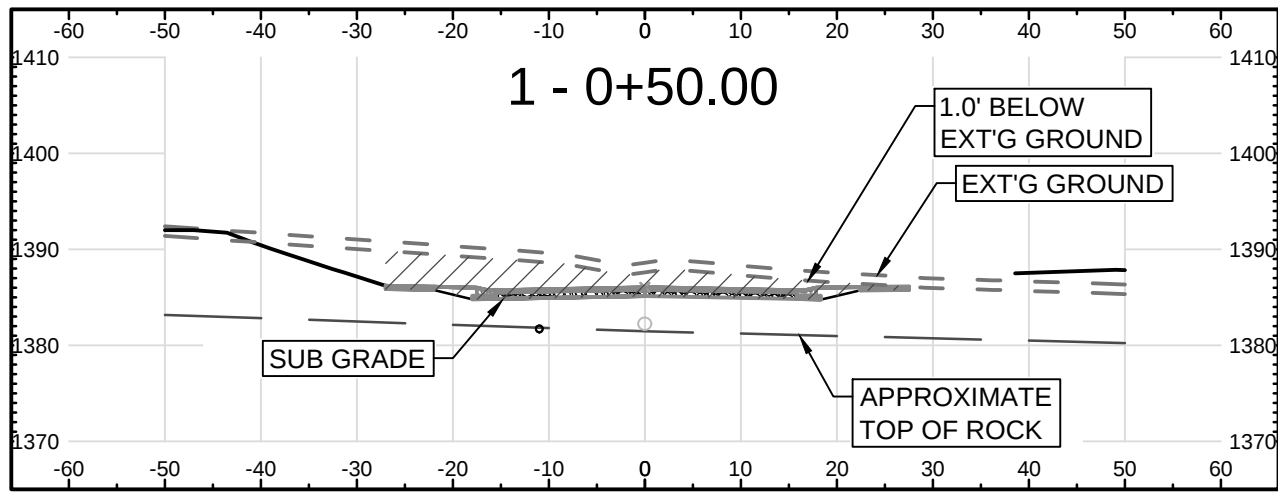
HEDCO

HAMMOND ENGINEERING & DEVELOPMENT CO.
23020 Penny Lane, Juliaetta, Idaho 83535
(208) 943-5003

THE ESTATES AT CANYON CREST PHASE IIC-1
CANYON CREST WAY PLAN & PROFILE
RPL DEVELOPMENT, LLC
LEWISTON, IDAHO

SHEET

C8



AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535

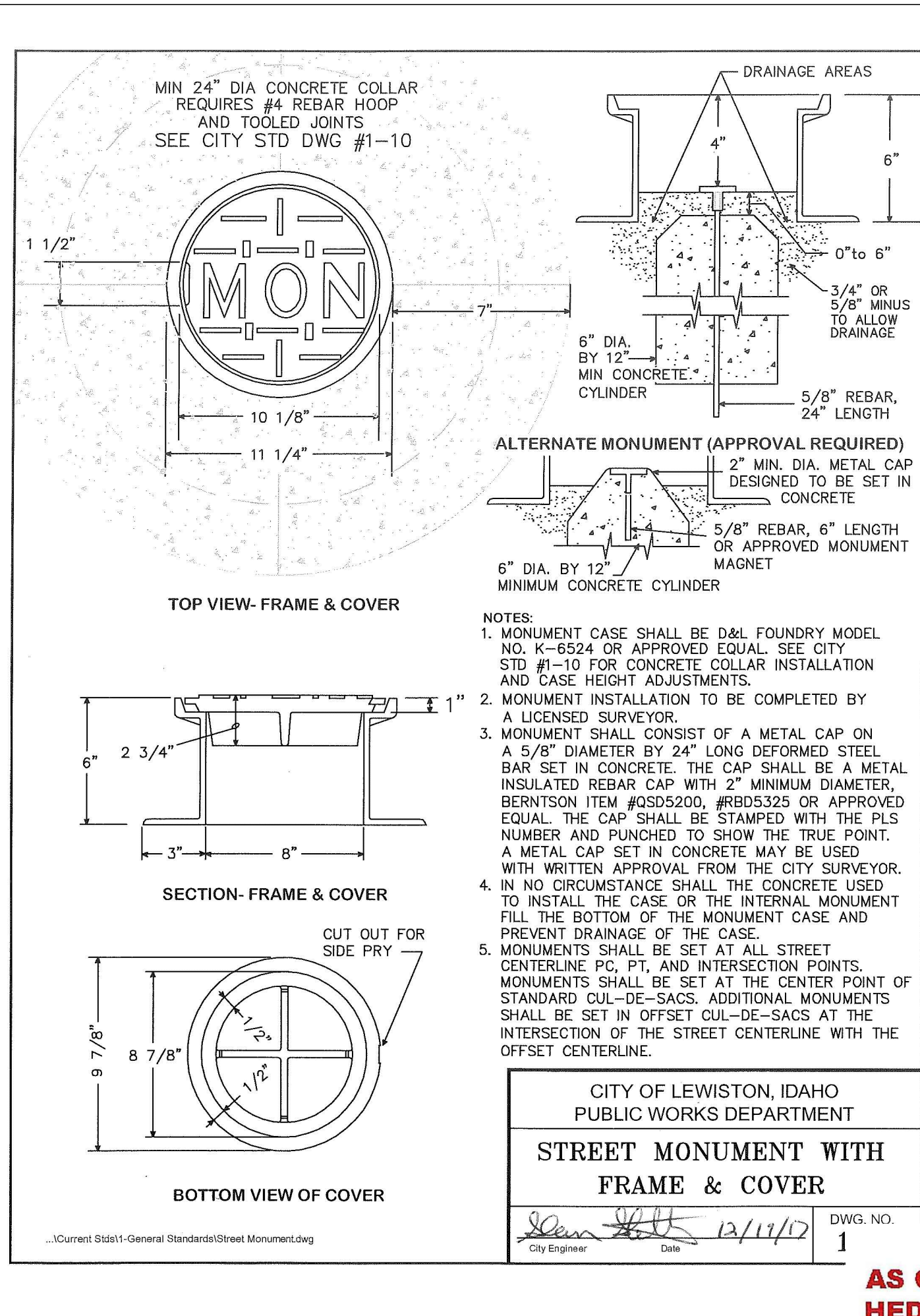
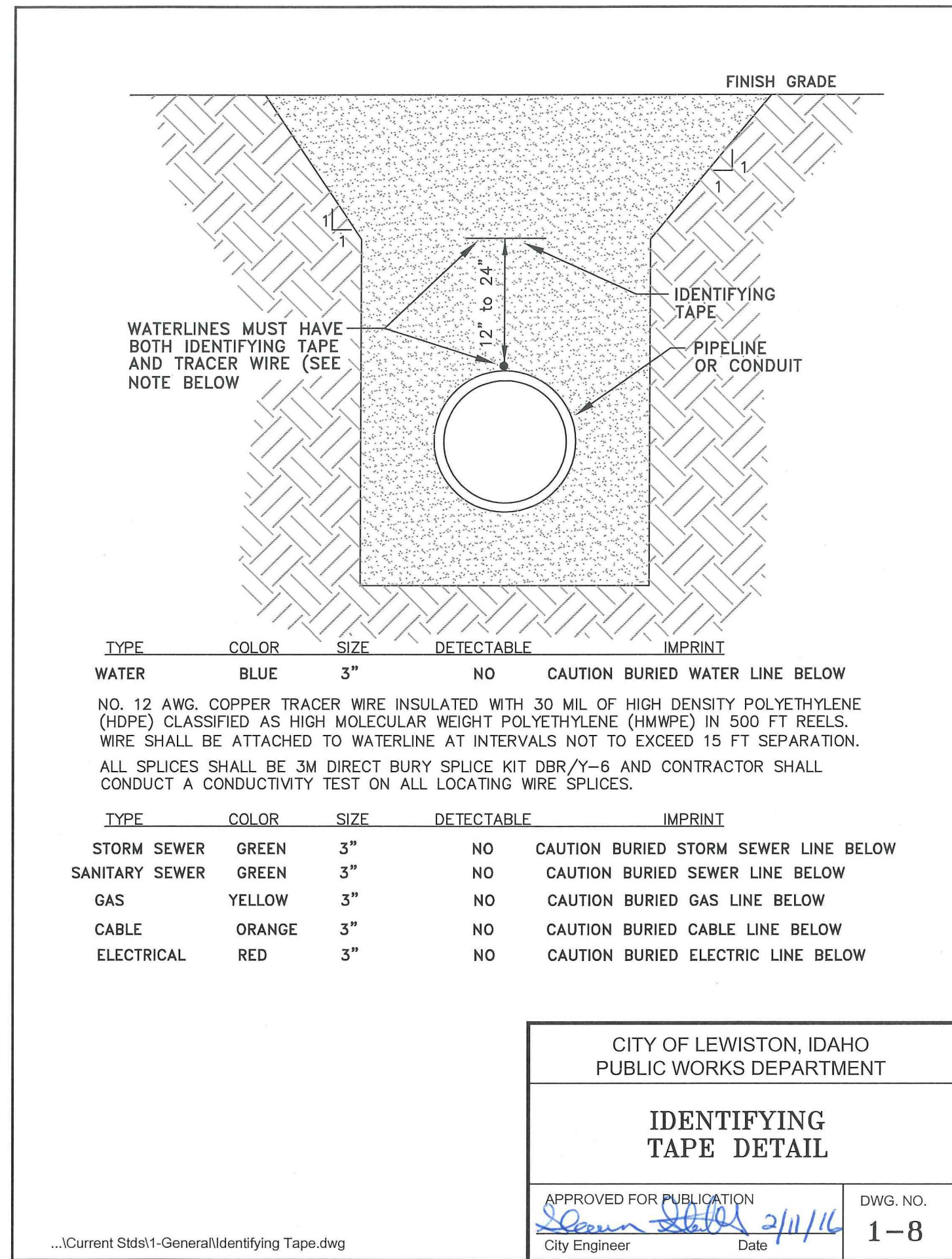
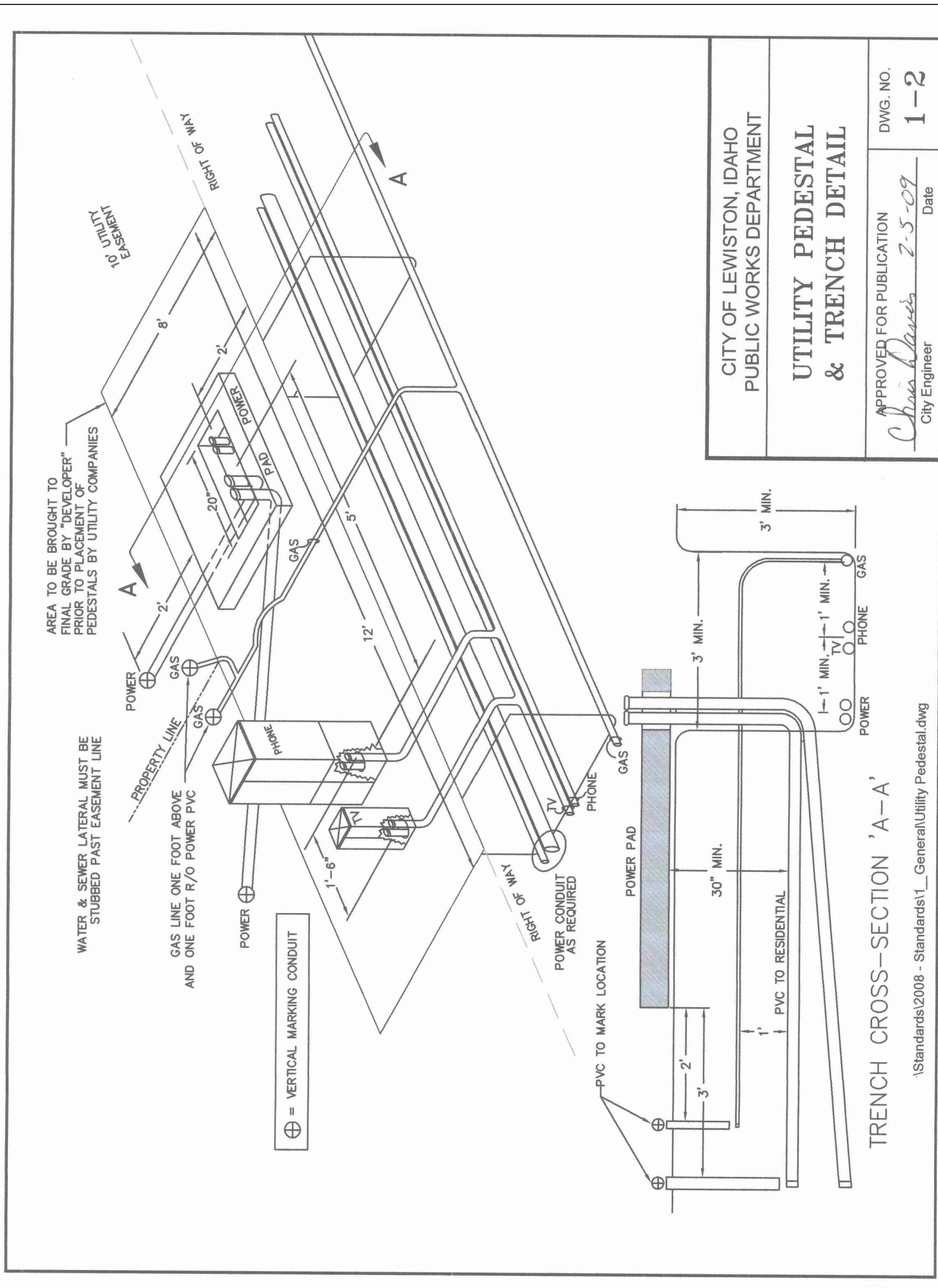
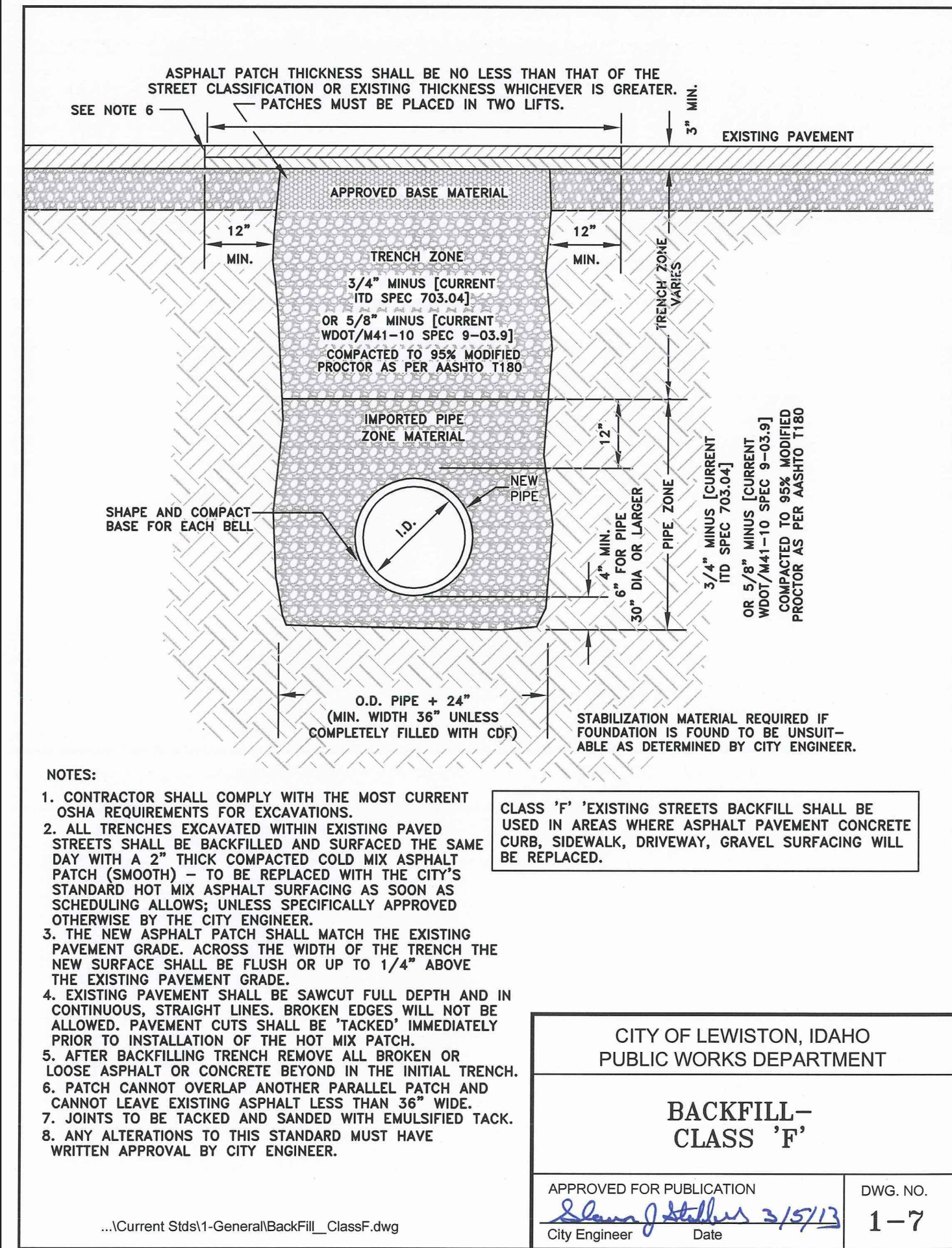
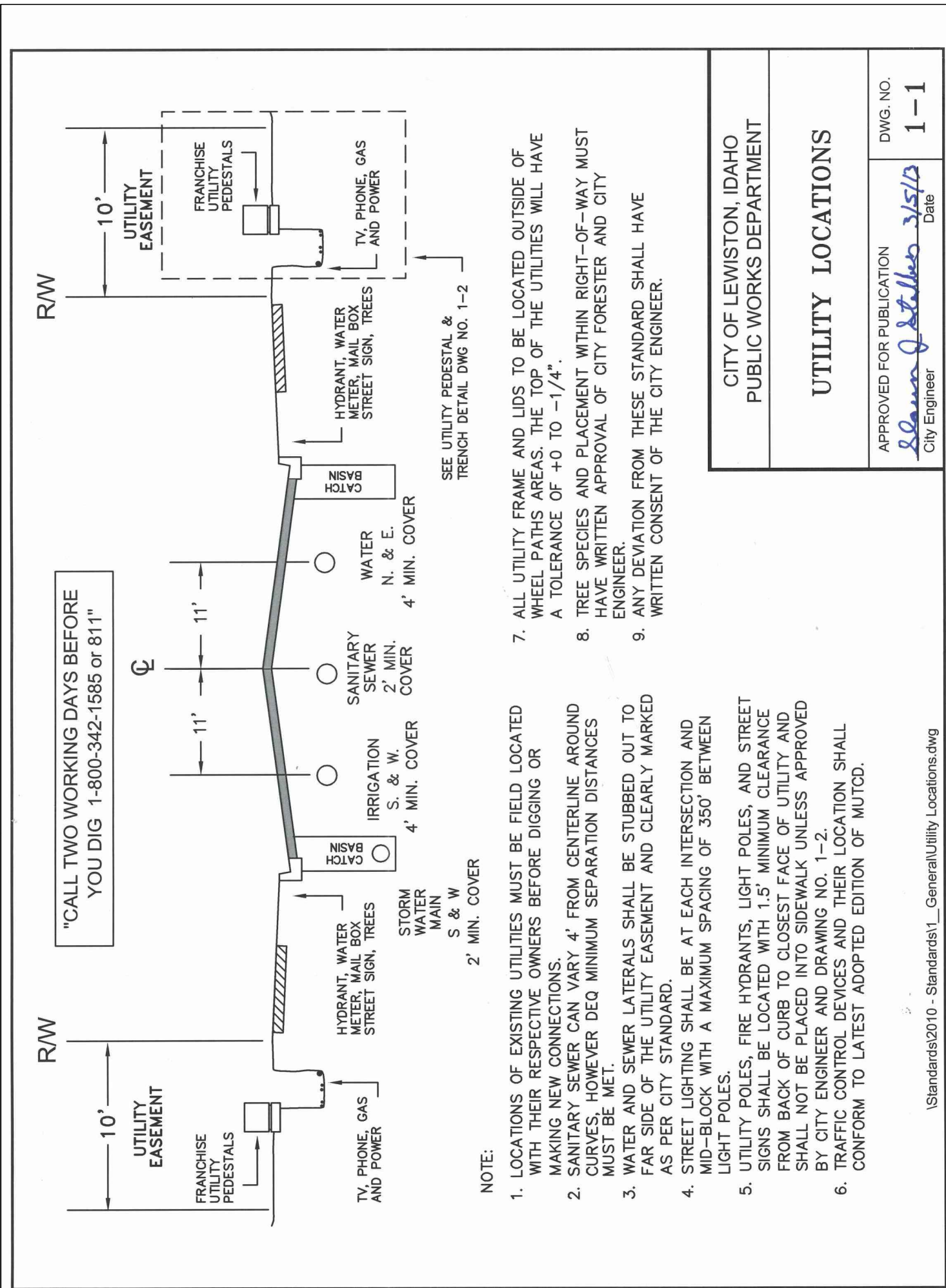


Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
0+50.00	0.00	148.02	0.00	0.00	0.00	0.00
1+00.00	0.00	129.05	0.00	256.54	0.00	256.54
1+50.00	0.00	126.45	0.00	236.58	0.00	493.12
2+00.00	0.00	151.25	0.00	257.13	0.00	750.25
2+50.00	0.00	153.94	0.00	282.59	0.00	1032.84
3+00.00	0.00	370.53	0.00	682.05	0.00	1714.89
3+50.00	7.14	55.08	3.25	673.88	3.25	2388.77
4+00.00	33.98	16.51	37.68	66.67	40.93	2455.44

SHEET	C9	DRAWING #	2022-C9	SHEET	C9	DATE	02-02-21	CHECKED BY	JSH	SHEET	C9	REVISION	DESCRIPTION	CHECKED	APPD.

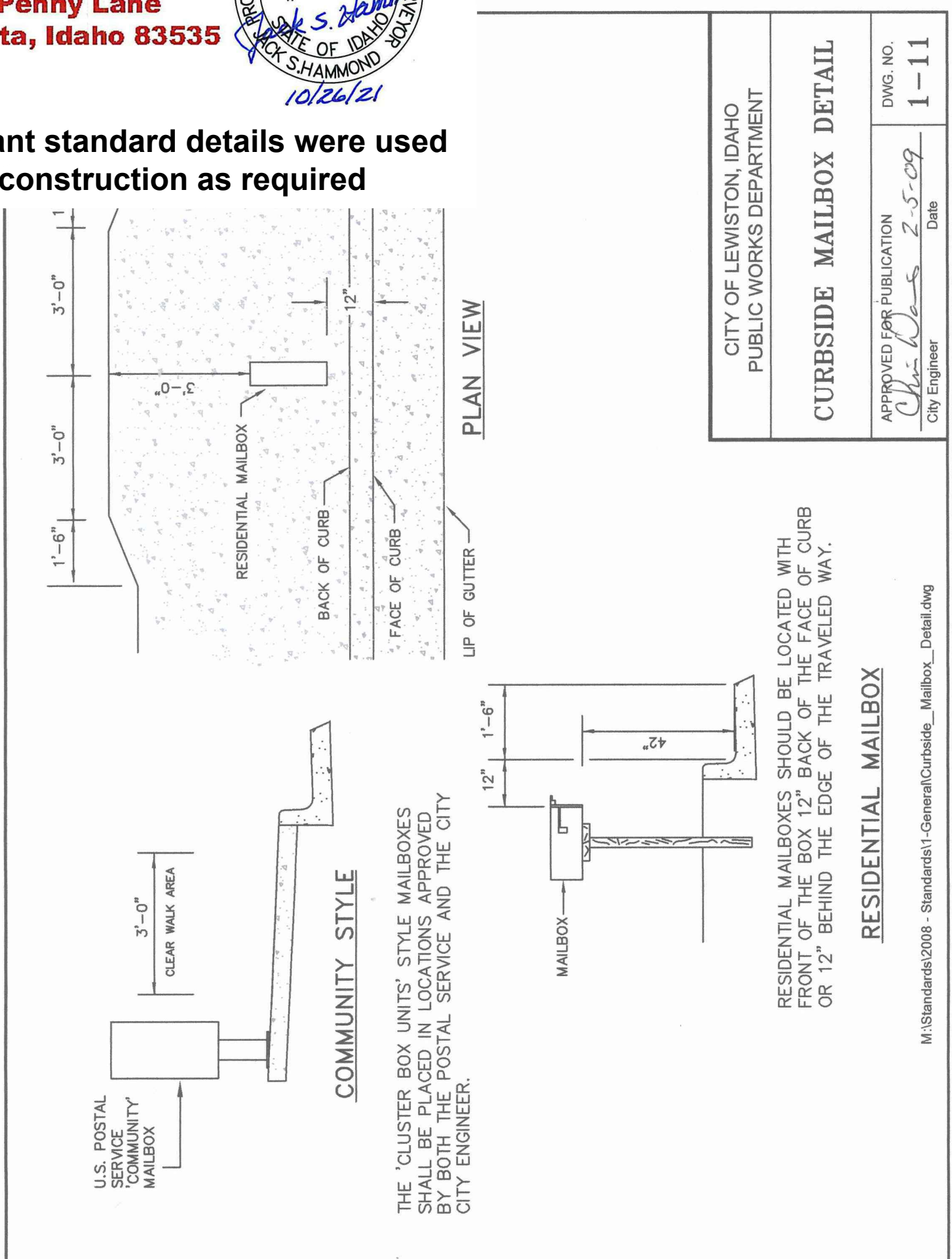
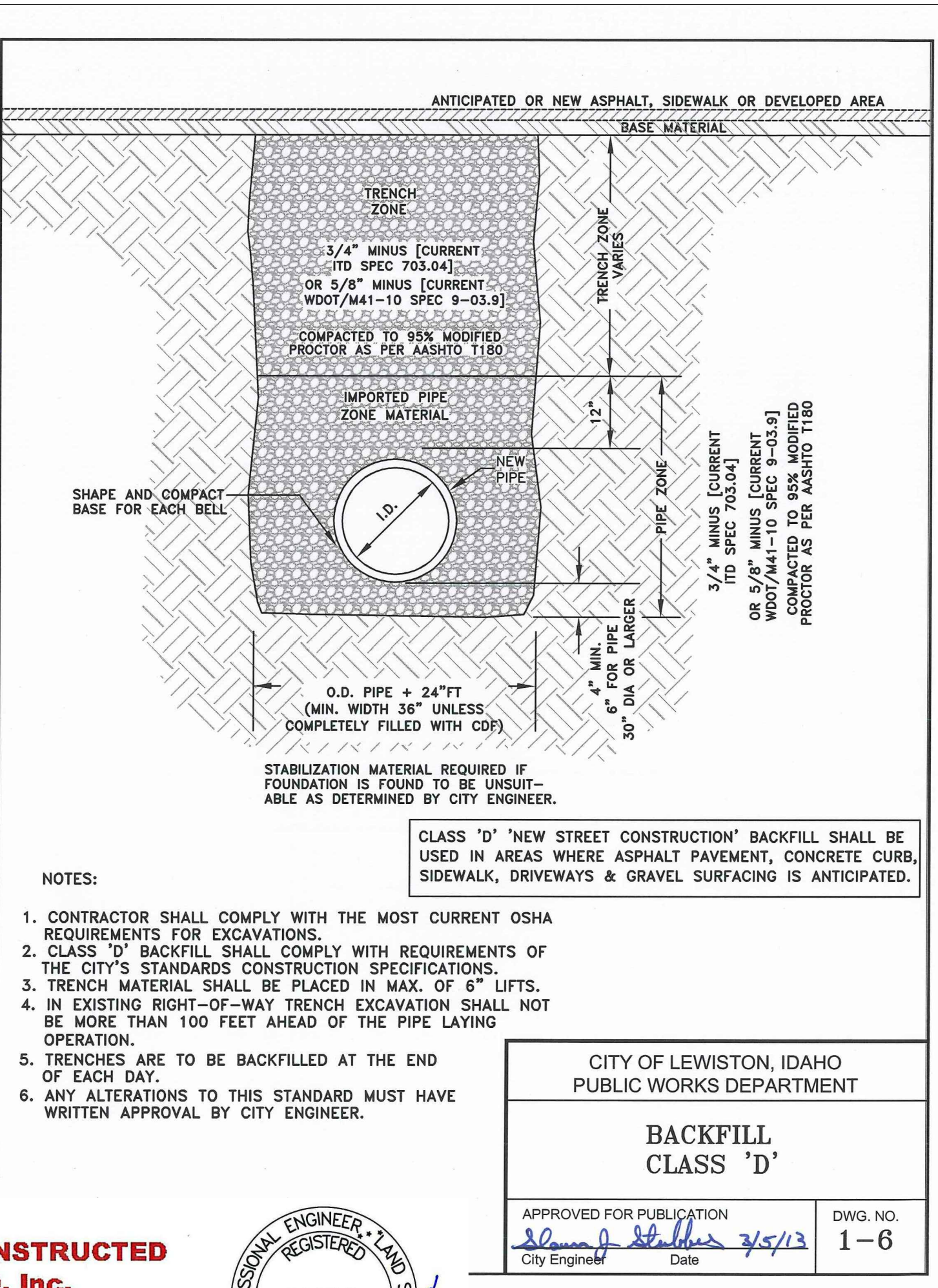
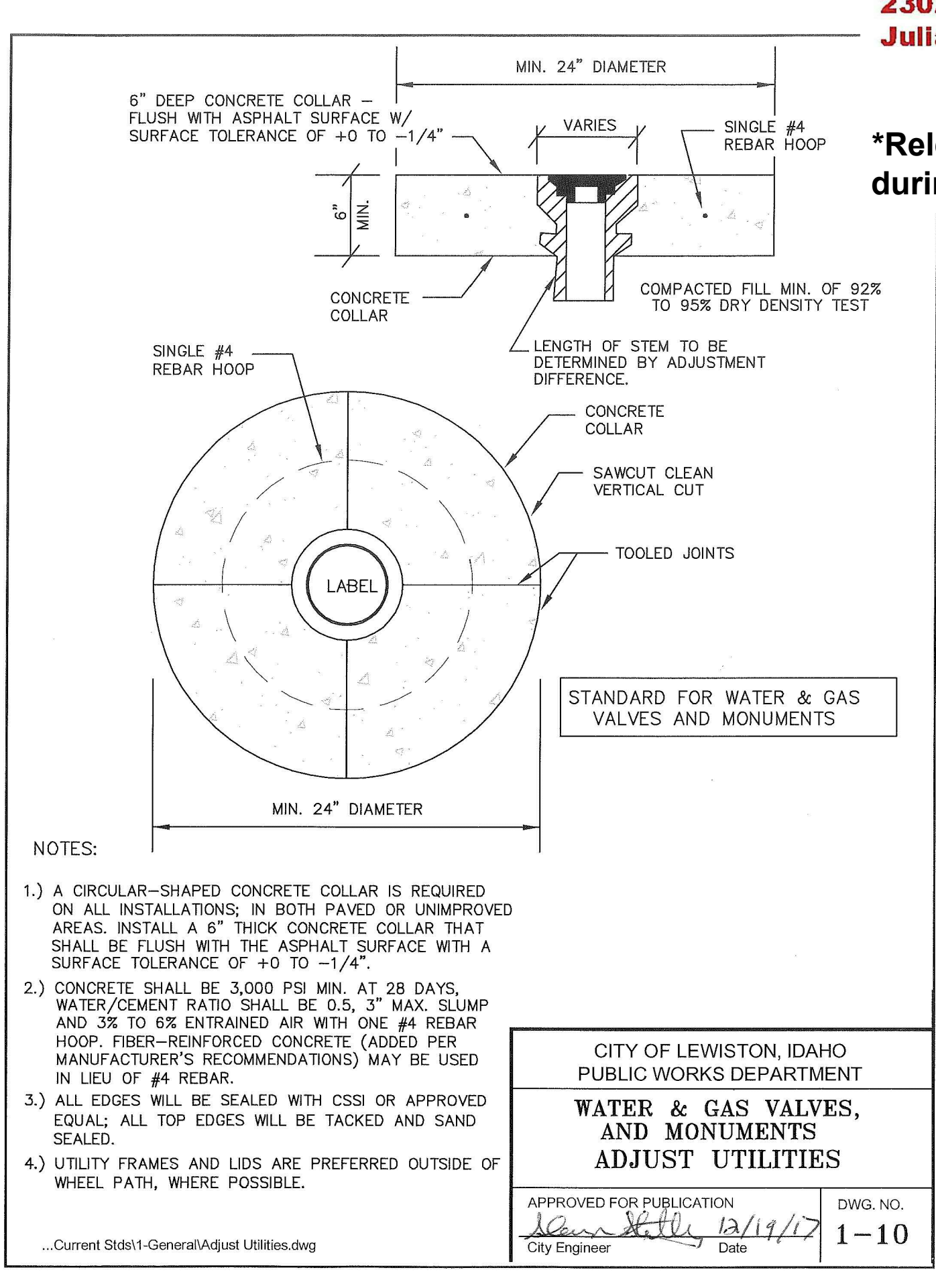
THE ESTATES AT CANYON CREST PHASE IIC-1
CANYON CREST WAY X-SECTIONS
RPL DEVELOPMENT, LLC
LEWISTON, IDAHO

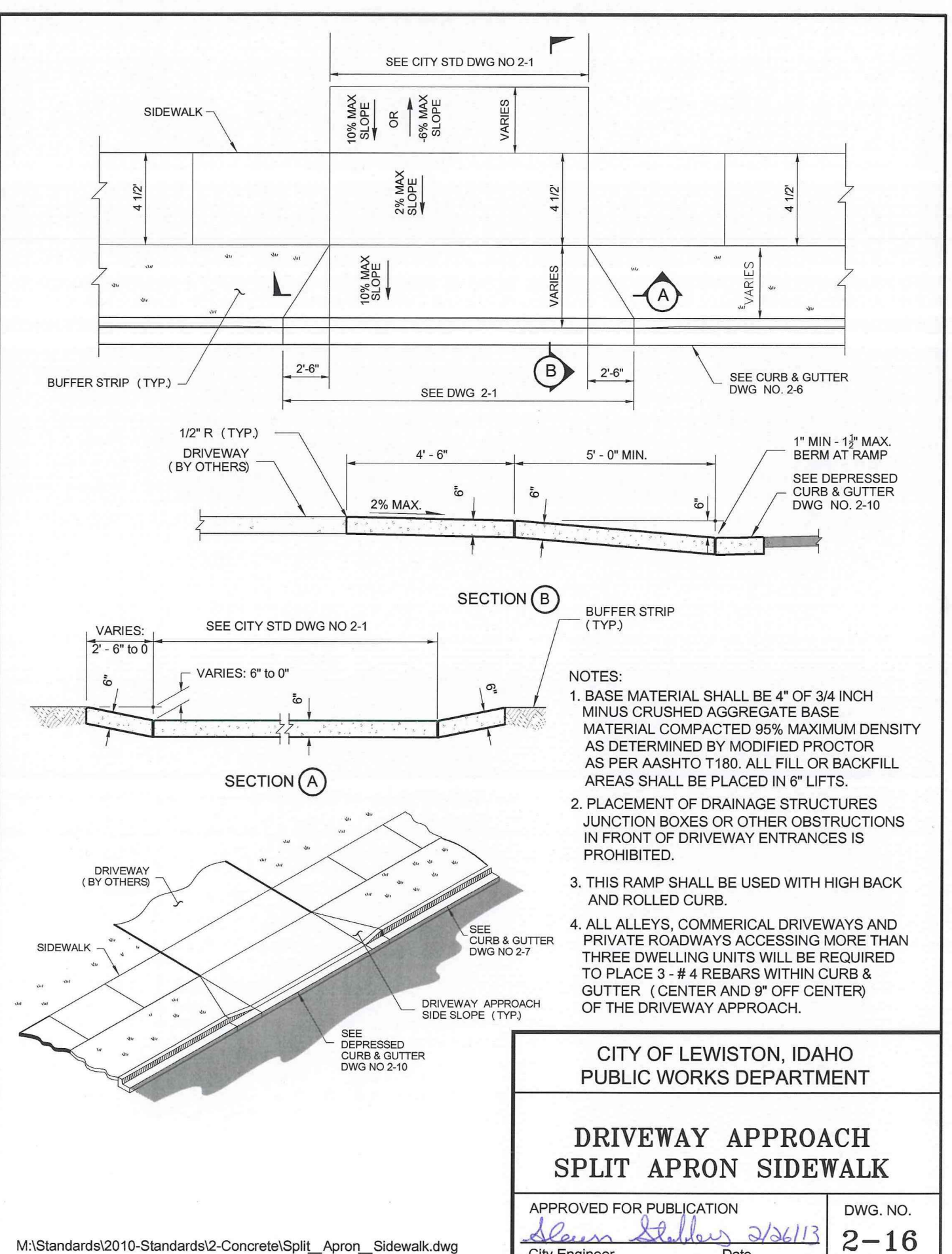
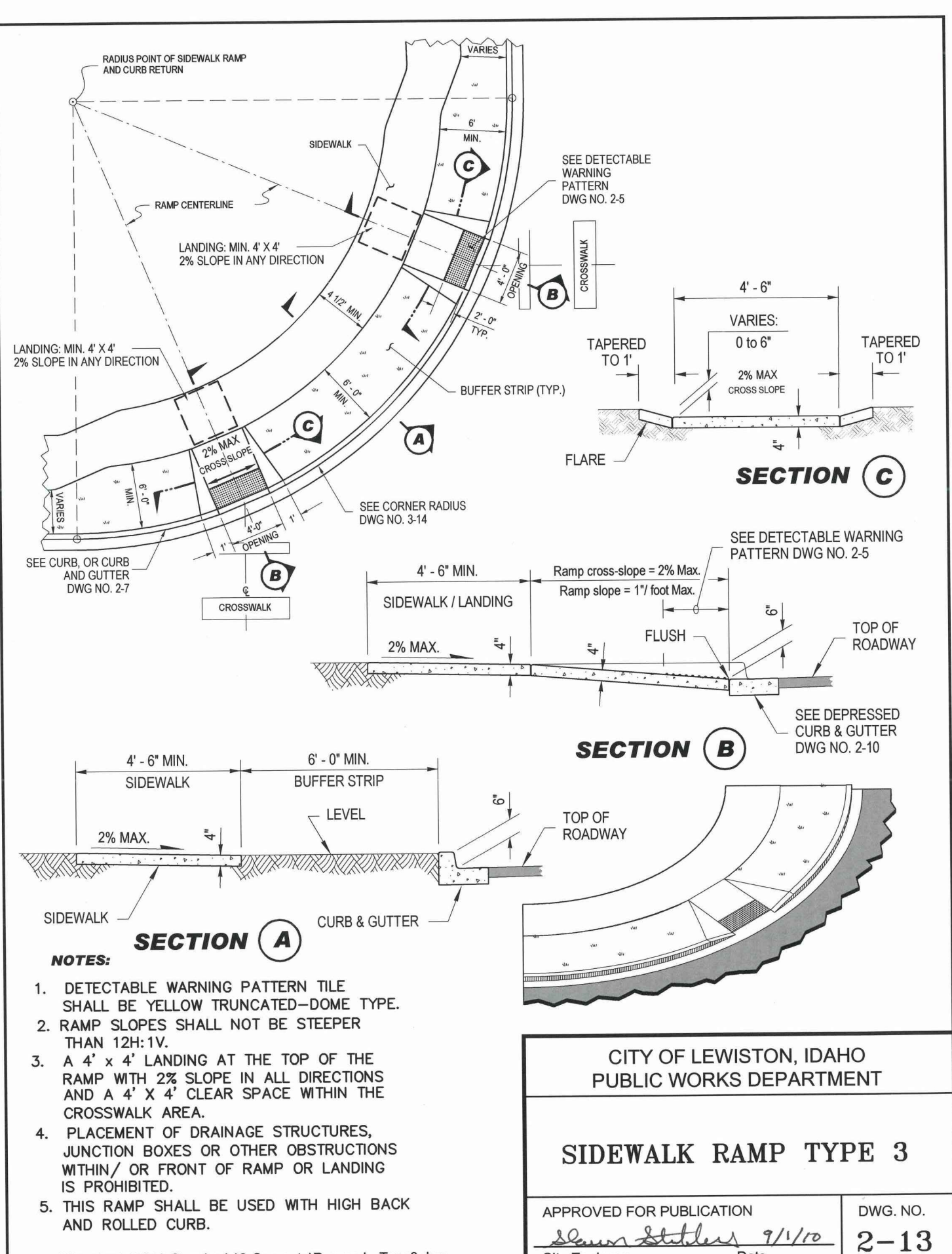
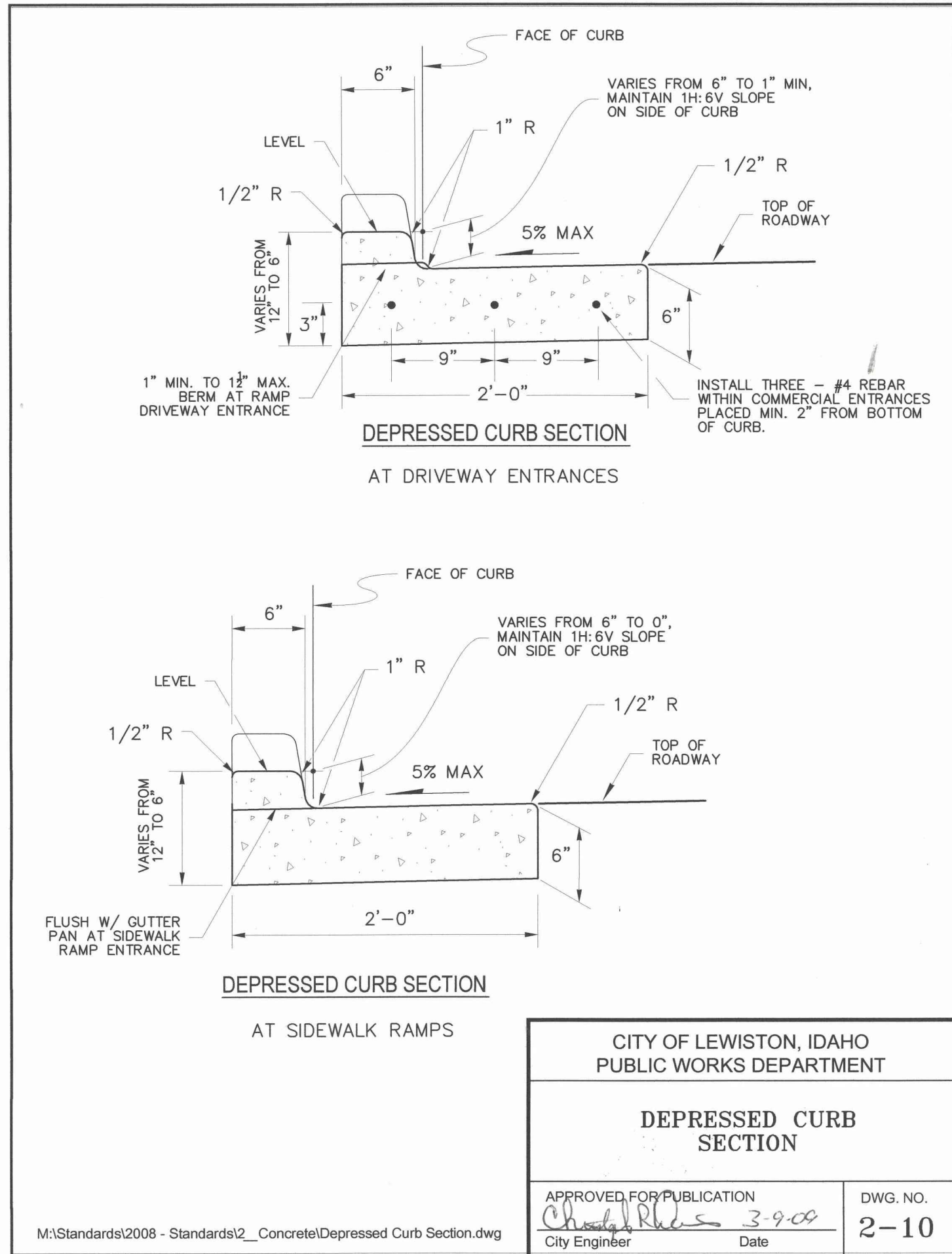
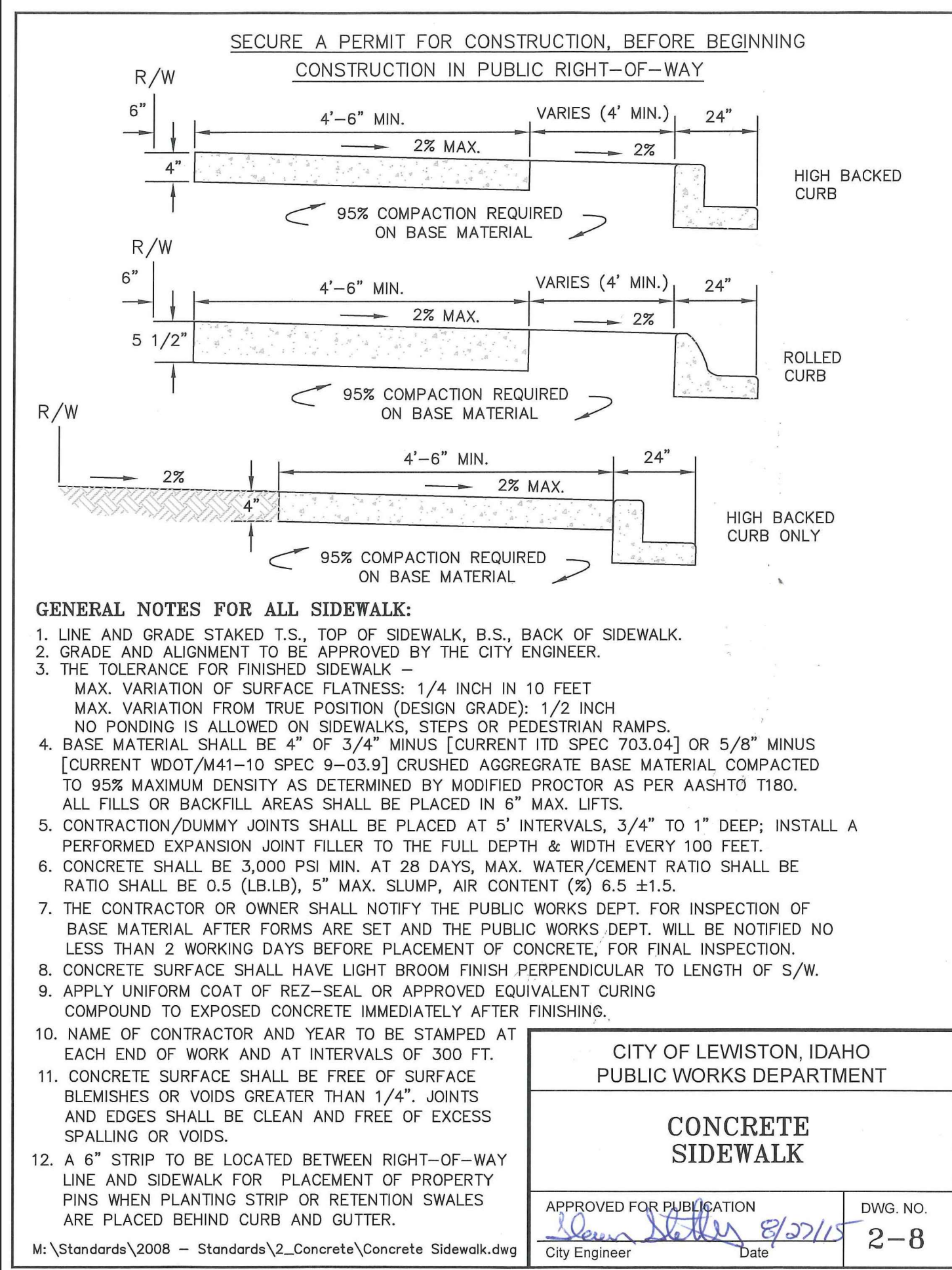
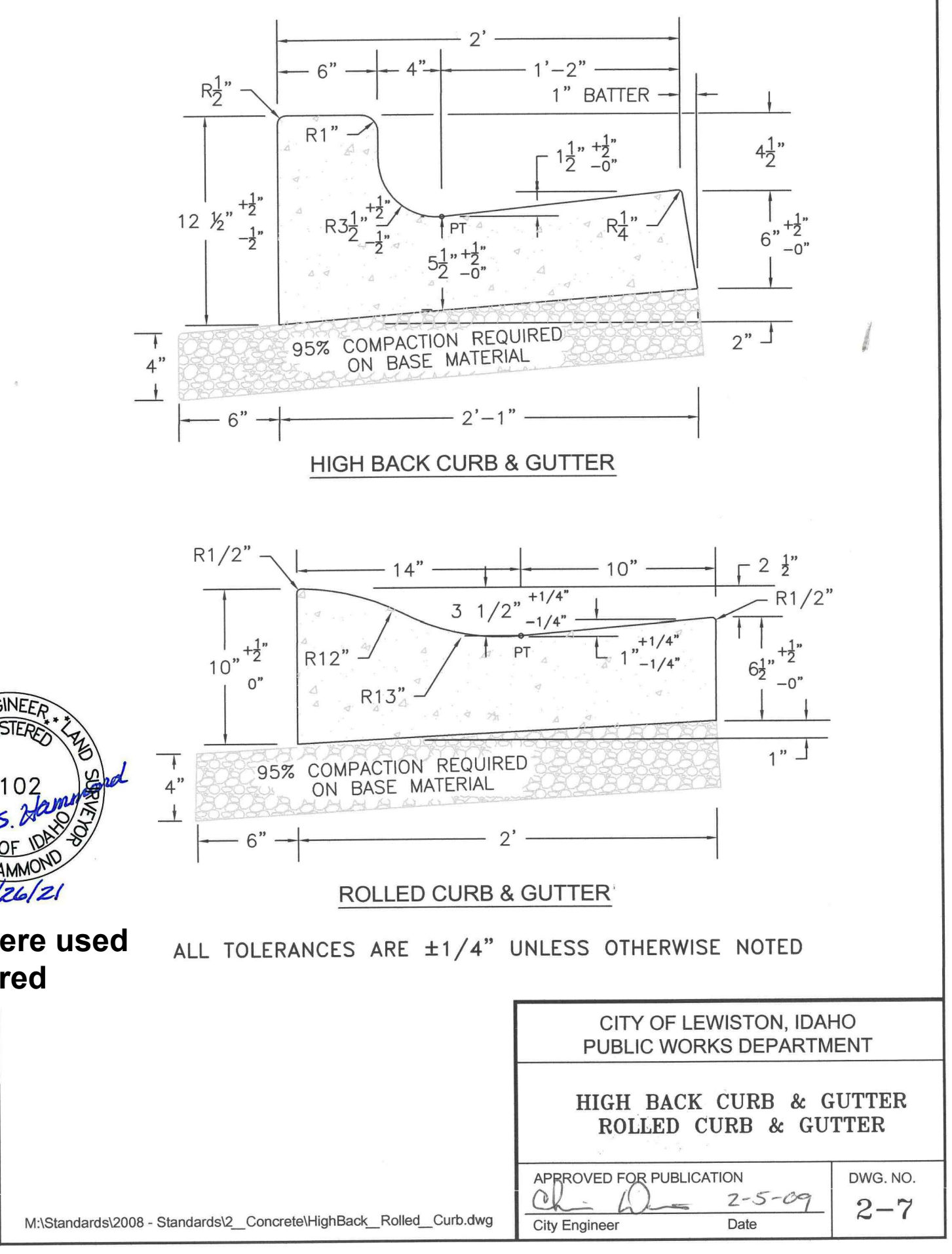
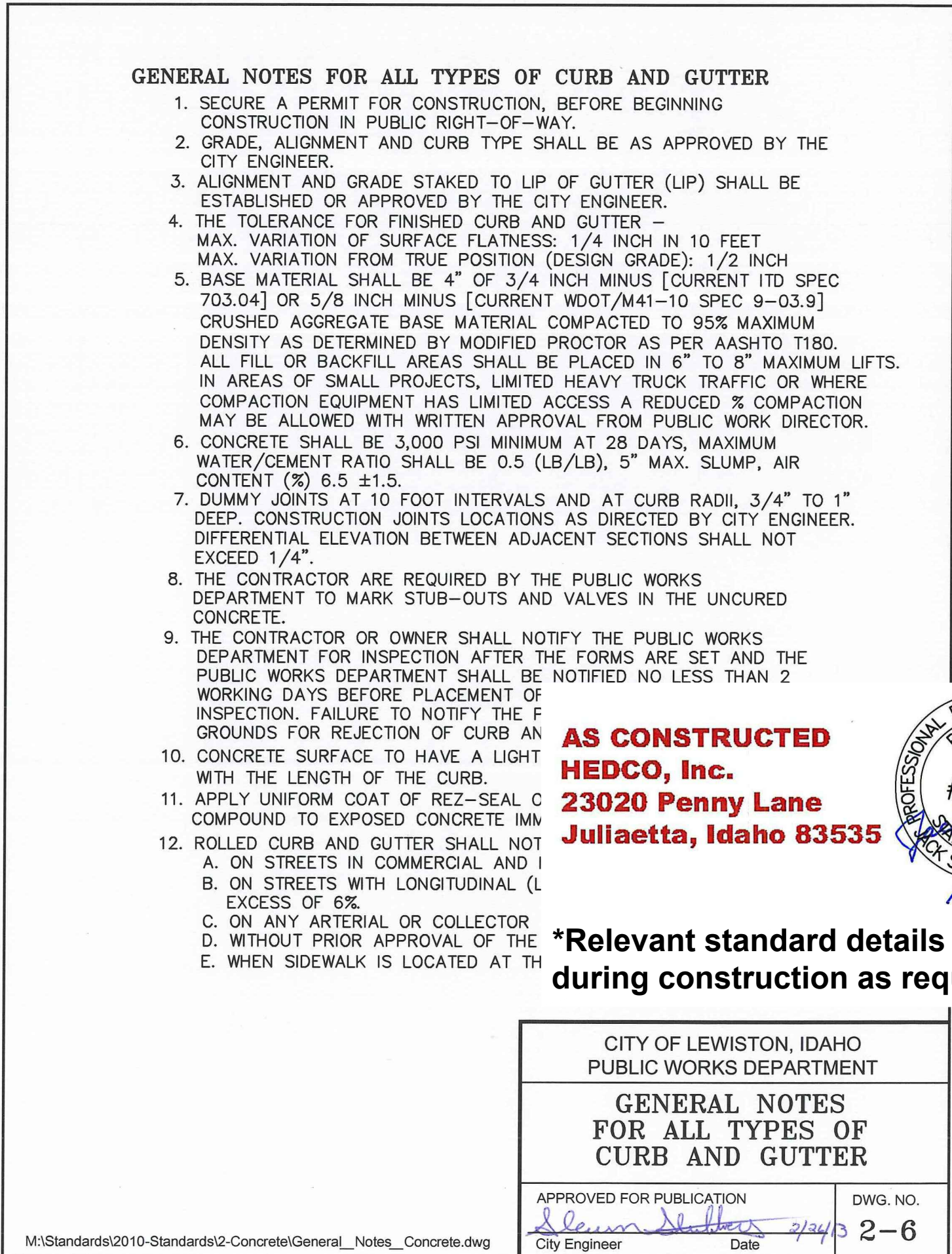
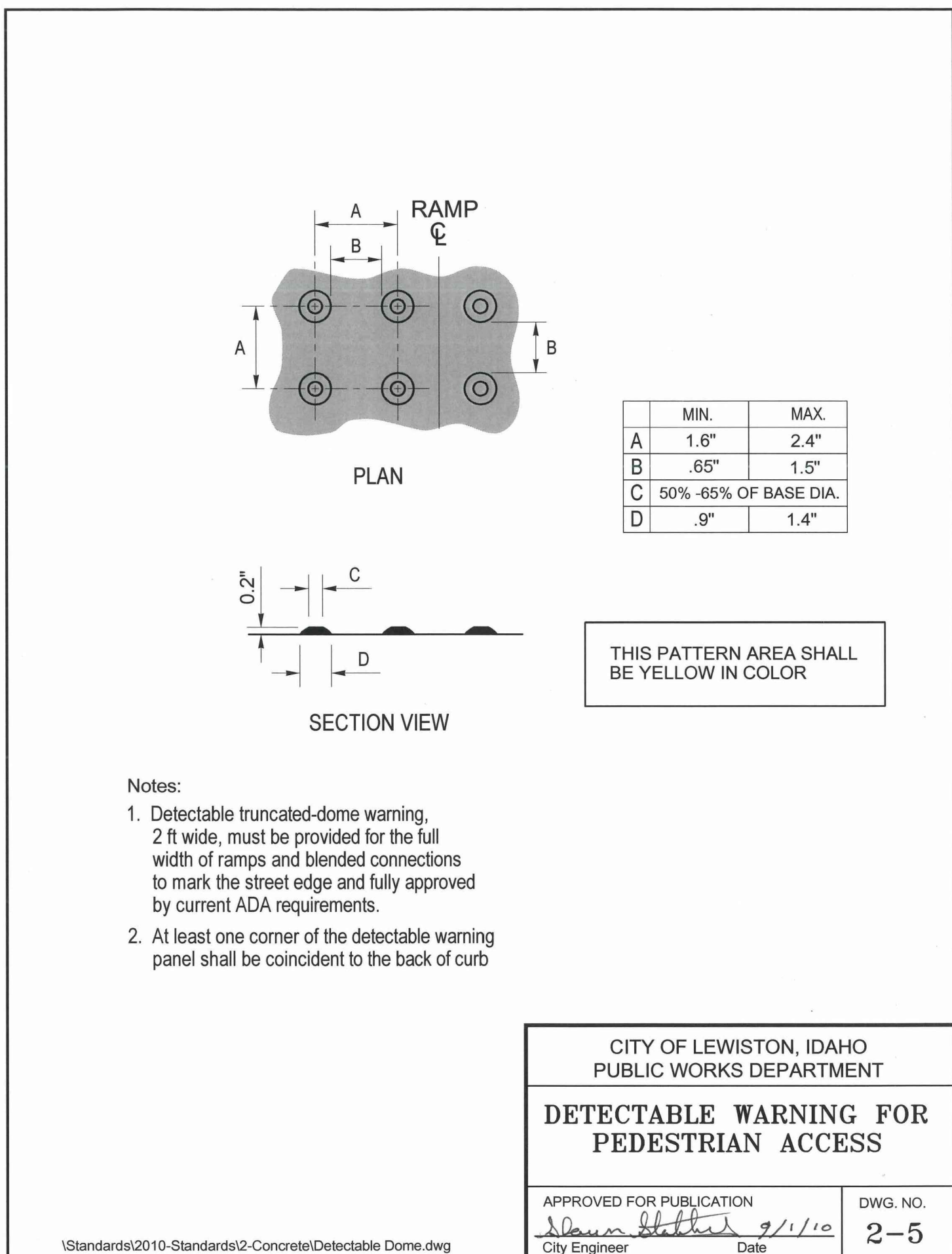
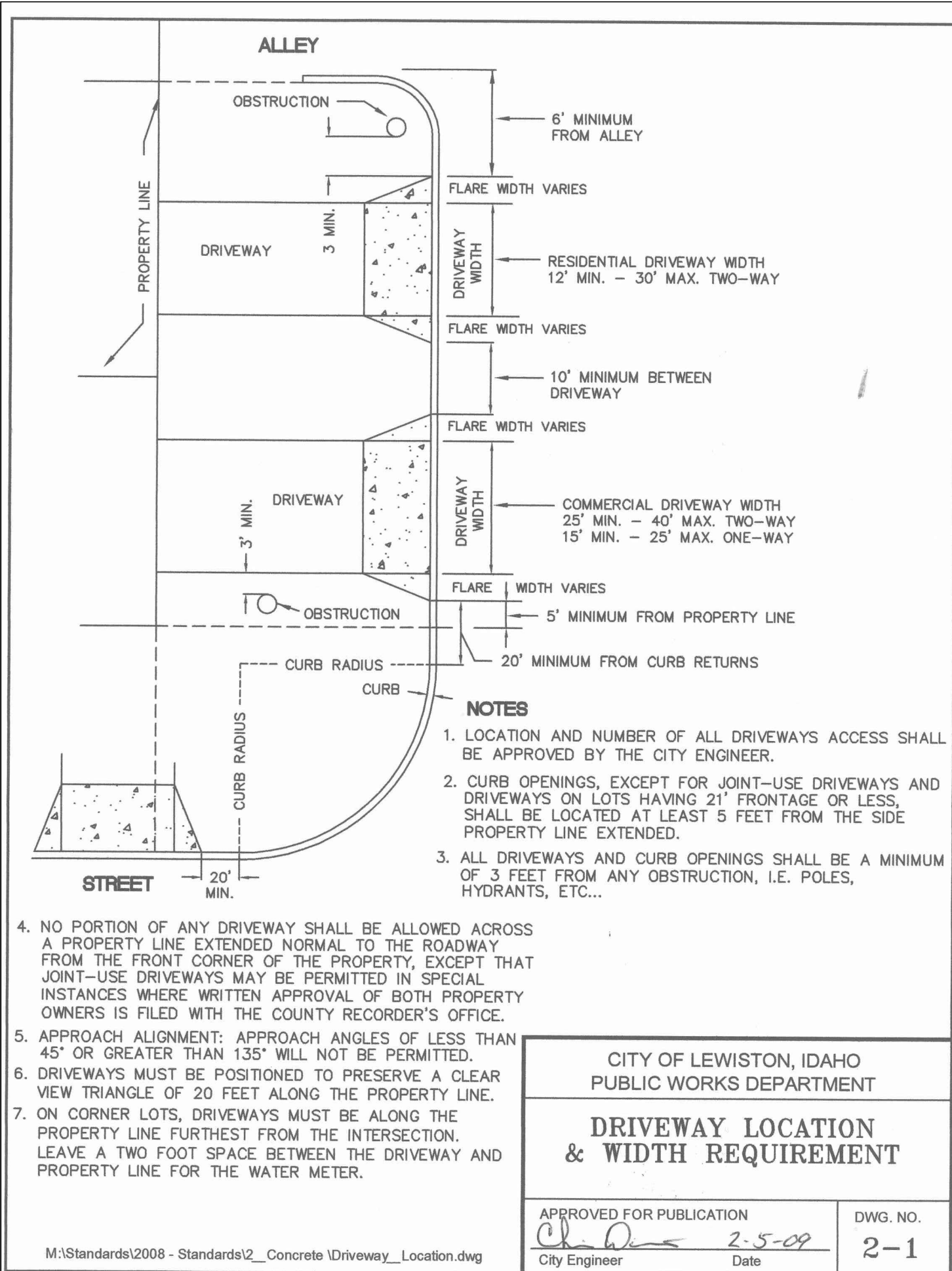


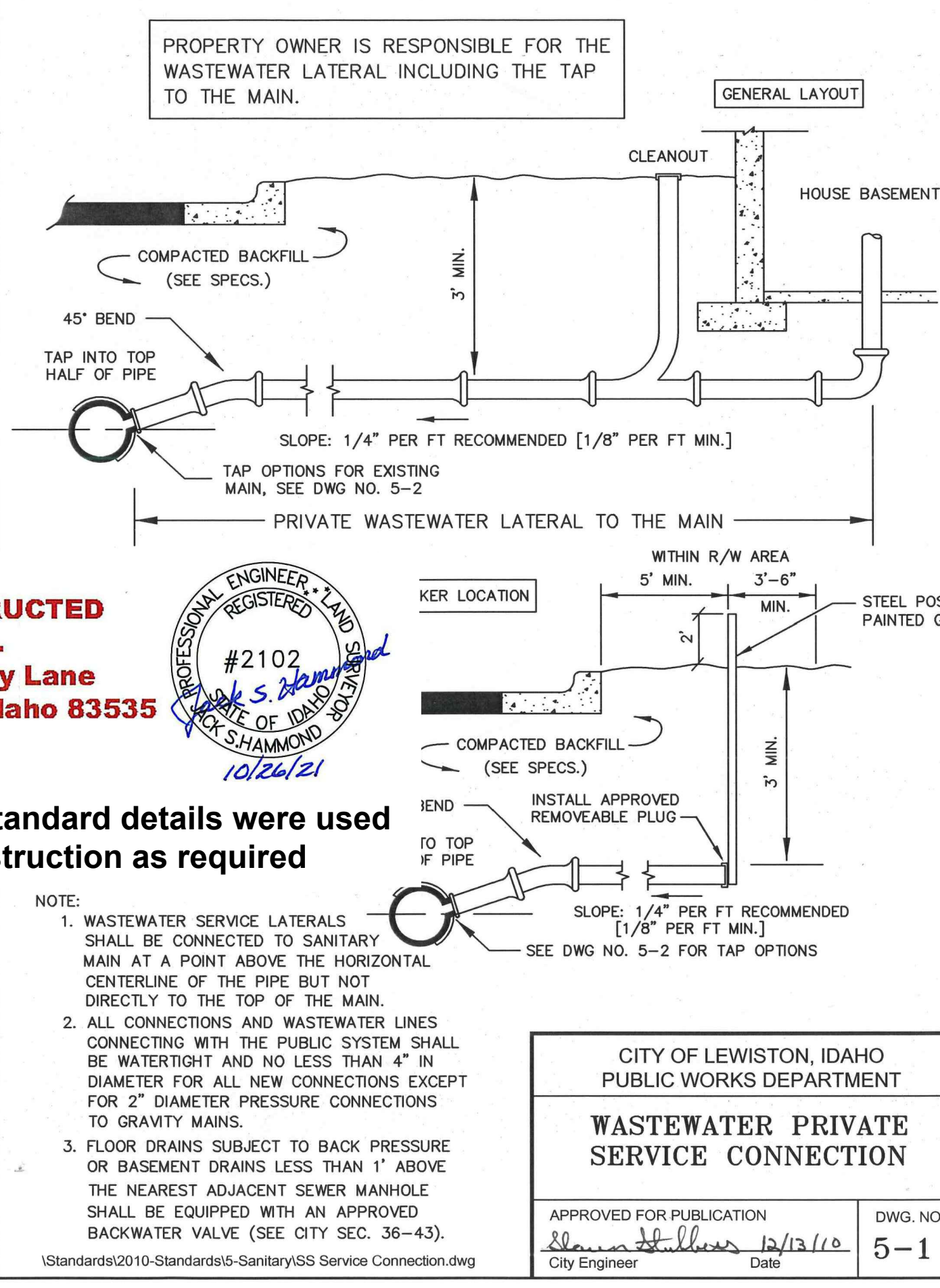
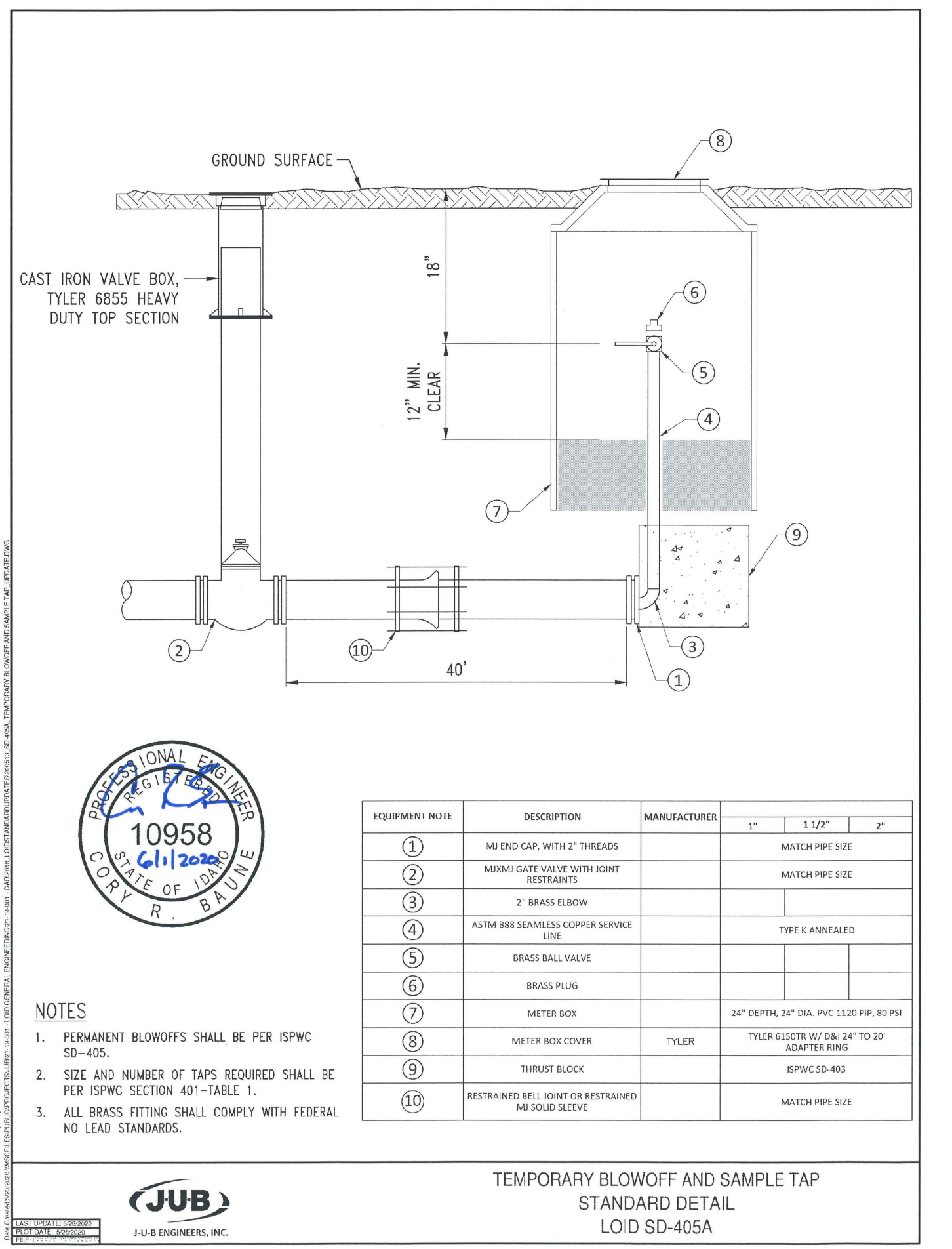
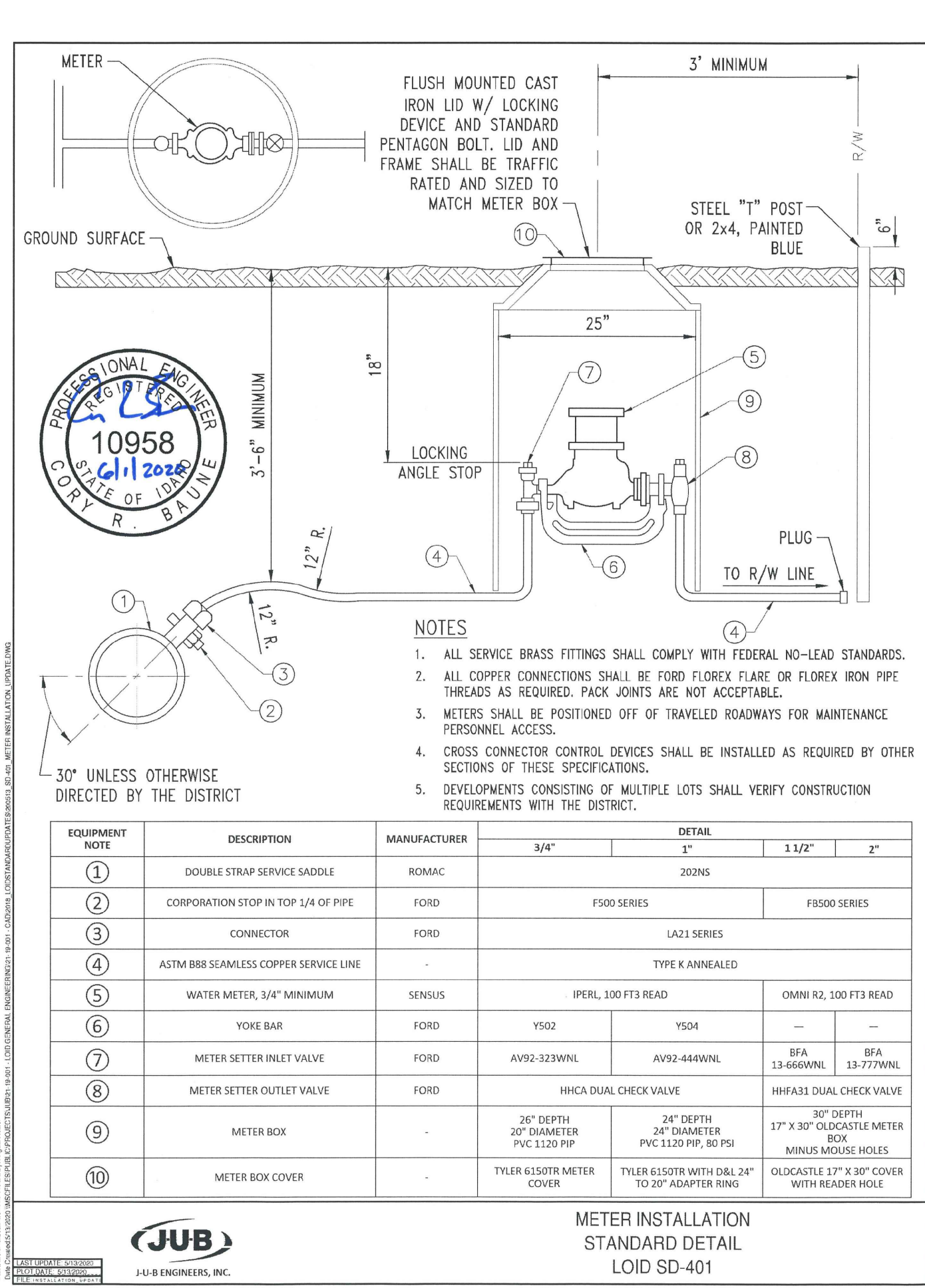
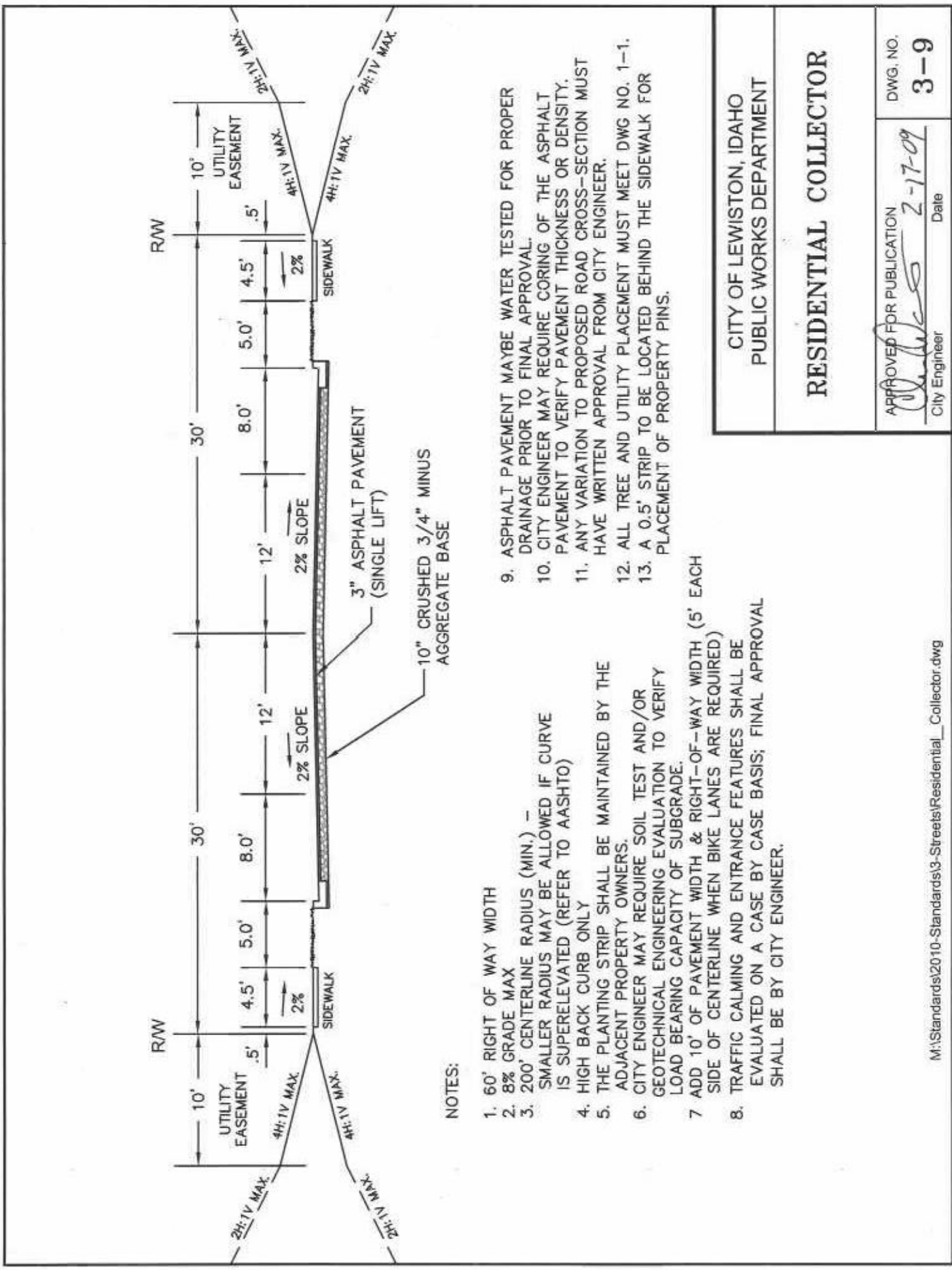


AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535

***Relevant standard details were used during construction as required**







THE ESTATES AT CANYON CREST

PHASE III-C-1

STANDARD DRAWINGS

RPL DEVELOPMENT, LLC

LEWISTON, IDAHO



HAMMOND ENGINEERING & DEVELOPMENT CO.
 23020 Penny Lane, Joliet, IL 60535
 (815) 943-9243

SHEET

C12

DATE

03-26-21

DRAWING #

C12

DATE

2022-C12

SCALE

DRAWN BY MEE

DATE

03-26-21

CHECKED BY

JSH

DATE

2022

SHEET SIZE

11x17

DATE

2/27/21

REVISION

DESCRIPTION

DATE

2/27/21

CHECKED

APPRO.

DATE

2/27/21



1. WASTEWATER SERVICE LATERALS SHALL BE CONNECTED TO SANITARY MAIN AT A POINT ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE BUT NOT DIRECTLY TO THE TOP OF THE MAIN.
2. FOR SANITARY MAIN PIPE OF 6" DIAMETER AND LARGER USE ROMAC STYLE 'CB' WASTEWATER SADDLE.

WASTEWATER SERVICE TAP OPTIONS DETAIL

APPROVED FOR PUBLICATION <i>Dean Huber</i> 12/13/10 City Engineer Date	DWG. NO 5-2
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1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199. JOINTS SHALL BE RUBBER GASKET CONFORMING TO ASTM C443 AND SHALL BE PLACED ON TOP OF HOW TO BE PLACED TO BE GLUED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
2. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL BE 18" SQUARE WITH A THICKNESS OF 2" MINIMUM.
3. CONNECTION TO MANHOLE SHALL BE MADE USING RESILIENT CONNECTOR CONFORMING TO ASTM C-923 SUCH AS KOR-N-SEAL, A-LOK OR APPROVED EQUAL.
4. RISERS, UNIT SECTIONS AND THE FRAME SHALL BE CAST WITH THE SAME CONCRETE MIXTURE WITH THE MANHOLE BASE; PIPES SHALL BE FLUSH WITH INSIDE EDGE OF MANHOLE.
5. PRESSURE TESTING IS REQUIRED FOR ALL INSTALLATIONS.
6. SEE DWG NO 5-6 FOR CONCRETE MANHOLE COLLAR.
7. MAXIMUM SPACING BETWEEN MANHOLES IS 400 FEET.

WASTEWATER
TYPE 1 MANHOLE

APPROVED FOR PUBLICATION

 City Engineer Date 11/21/10

DWG. NO.
 5-3



1. INSTALLATION OF FLAT TOP SLABS MUST HAVE WRITTEN APPROVAL FROM CITY ENGINEER.
2. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199. JOINTS SHALL BE SUBSTITUTED GASKET CARTRIDGE JOINTS TO ASTM C443 AND SHALL BE GROUTED FROM THE INSIDE. LIFT HOLES BE GROUTED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
3. PRECAST BASES SHALL BE FURNISHED WITH CHAIRS OR KNOCKOUTS WITH KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
4. CONNECTION TO MANHOLE SHALL BE MADE USING RESILIENT CONNECTOR CONFORMING TO ASTM C-923 (2" MINIMUM) OR APPROVED EQUAL.
5. RISERS, UNIT SECTIONS AND THE FRAME SHALL NOT BE MORE THAN ONE INCH OUT OF ALIGNMENT WITH THE MANHOLE BASE; PIPES SHALL BE FLUSH WITH INSIDE EDGE OF MANHOLE.
6. PRESSURE TESTING IS REQUIRED FOR ALL INSTALLATIONS.
7. SCHEDULE NO 5-6 FOR CONCRETE MANHOLE COLLAR.

WASTEWATER
TYPE 1A MANHOLE
(SHALLOW MANHOLE)

APPROVED FOR PUBLICATION <i>Shawn Stille</i> 11/2/15 City Engineer Date	DWG. NO. 5-4
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1. A CIRCULAR-SHAPED CONCRETE COLLAR IS REQUIRED ON ALL INSTALLATIONS; IN BOTH PAVED OR UNIMPROVED AREAS, INSTALL A 8" THICK CONCRETE COLLAR THAT SHALL BE FLUSH WITH THE ASPHALT SURFACE WITH A SURFACE TOLERANCE OF +0 TO -1/4".
2. CONCRETE SHALL BE 3,000 PSI MIN. AT 28 DAYS, WATER/CEMENT RATIO SHALL BE 0.5, 3" MAX. SLUMP AND 3% TO 6% ENTRAINED AIR WITH ONE #4 REBAR HOOP. FIBER-REINFORCED CONCRETE (ADDED PER MANUFACTURER'S RECOMMENDATIONS) MAY BE USED IN LIEU OF #4 REBAR.
3. ALL EDGES SHALL BE SEALED WITH CSSI OR APPROVED EQUAL. ALL TOP EDGES WILL BE TACKED AND SAND SEALED. SIMILAR TO CITY STD NO. 6-4
4. UTILITY FRAMES AND LIDS ARE PREFERRED OUTSIDE OF WHEEL PATH, WHERE POSSIBLE.

CITY OF LEVISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER
CONCRETE
MANHOLE COLLAR

APPROVED FOR PUBLICATION <i>[Signature]</i> 1/27/15 City Engineer Date	DWG. NO. 5-6
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1. MANHOLE FRAME [D&L FOUNDRY A-2003 OR EAST JORDAN IRON WORKS #00184811] AND COVER [EJW #00184849 OR D&L A-2010-01] OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.; VERIFY "SEWER" UTILITY LABEL LETTERING ON COVER.
2. COVER MATERIAL SPECIFICATION GRAY IRON (ASTM A48 CL35B)
3. IN AREAS OF HIGH STORMWATER INFILTRATION, LIDS SHALL HAVE GASKETED AND BOLTED.

WASTEWATER MANHOLE FRAME AND COVER

APPROVED FOR PUBLICATION <i>John H. H. H. H.</i> 11/1/10	DWG. NO. 5-7
City Engineer	Date



1. SLOPE ALL SHELVES TO CHANNEL AT 1:12.
2. SEE PLAN & PROFILE SHEETS FOR SLOPE OF CHANNEL.
3. FOR PIPES OF DIFFERENT SIZES, THE TOP OF PIPE (CROWN) SHALL BE AT THE SAME ELEVATION.
4. OFFSET CONE 24" DIAMETER OPENING CENTERED OVER UPSTREAM PIPE INVERT.

WASTEWATER
MANHOLE CHANNEL
DETAIL

APPROVED FOR PUBLICATION <i>[Signature]</i> City Engineer	DWG. NO. 9-22-15 5-8
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GENERAL NOTES FOR STORMWATER SYSTEMS

1. ALL WORK SHALL CONFORM TO CURRENT 'IDAHO' STANDARDS FOR PUBLIC WORKS CONSTRUCTION' (ISPCW) SPECIFICATIONS AND THE CITY OF LEWISTON STANDARDS AND SPECIFICATIONS. IN THE CASE OF CONFLICT, CITY STANDARDS SHALL PREVAIL. THE 'LEWISTON STORMWATER POLICY AND DESIGN MANUAL' DEFINE THE POLICIES, MINIMUM STANDARDS, REFINEMENTS AND MODIFICATIONS FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE SYSTEMS.
2. ANY REPAIR, MAINTENANCE OR ALTERATION OF DRAINAGE MUST BE APPROVED BY CITY ENGINEER
3. THE CONTRACTOR MUST SECURE APPROVAL FROM PRIOR TO ADDING OR REMOVING FILL BACKFILL (MAINLINE)
4. THE ENGINEERING INSPECTOR SHALL BE NOTIFIED (48) HOURS PRIOR TO COMMENCING WORK ON S
5. ALL PUBLIC STORM DRAIN LINES SHALL BE VIDE THE PUBLIC WORKS DEPARTMENT (AS PER PUB AND APPROVAL PRIOR TO PAVING. CITY SHALL HOURS FOR REVIEW.
6. ALL MANHOLES AND CATCH BASINS SHALL BE IN ENGINEERING INSPECTOR - ONCE PRIOR TO BAC TO ACCEPTANCE OF IMPROVEMENTS. CALL PWD MAIN OFFICE (208) 746-1316 FOR INSPECTION SCHEDULING.
7. CLOSED CONDUITS (OR PIPELINES) FOR STORMWATER CONVEYANCE IN THE CITY STORMWATER SYSTEM MUST BE A MINIMUM OF 12 INCH DIAMETER. THE PIPE MATERIAL MAY BE PLASTIC, STEEL, REINFORCED CONCRETE OR AN APPROVED MATERIAL.
8. MINIMUM PIPE SLOPE SHALL BE 0.5% AND MINIMUM DESIGN VELOCITY WHEN FLOWING FULL SHALL BE NOT LESS THAN 2 FEET PER SECOND AND MAXIMUM VELOCITY SHOULD NOT BE MORE THAN 8 FEET PER SECOND.
9. JUNCTIONS OF 3 OR MORE PIPES, CHANGES IN ALIGNMENT, SLOPE AND/OR CHANGES IN PIPE DIAMETER SHALL BE MADE ONLY AT CATCH BASINS OR MANHOLES.
10. STEEP SLOPE INSTALLATION SHALL BE INSTALLED AS PER MANUFACTURES PRACTICE SPECIFICATIONS.
11. MANHOLE SHALL BE INSTALLED AT THE END OF EACH LINE, AT ALL CHANGE IN SIZE OR ALIGNMENT, AT DISTANCE NOT GREATER THAN 400 FEET OR AT CITY ENGINEER'S REQUIRED SPACING. ALL OTHER CHANGES IS SPACING MUST HAVE WRITTEN APPROVAL FROM PUBLIC WORKS DEPARTMENT.
12. LOCATING WIRE SHALL BE INSTALLED WITH ALL PUBLIC STORM PIPE INSTALLATION SEE CITY DWG 1-8, 'IDENTIFYING TAPE DETAIL'.
13. CATCH BASINS AND MANHOLES SHALL BE ACCESSIBLE TO VEHICLES AND EQUIPMENT FOR MAINTENANCE FOR BE WITHIN RIGHT-OF-WAY OF A MINIMUM 6' EASEMENT. WIDTH OF 20 FEET PROPOSED ACCESS ROUTE MUST BE APPROVED BY CITY ENGINEER. MAINTENANCE ACCESS ROUTES THAT DO NOT FOLLOW THE STORMLINE MUST HAVE A MINIMUM 12' EASEMENT.

AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535

*Relevant standard details were used during construction as required

PUBLIC WORKS DEPARTMENT
STORMWATER SYSTEM
GENERAL NOTES



1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199. JOINTS SHALL BE RUBBER GASKET CONFORMING TO ASTM C443 AND SHALL BE GROUTED FROM THE INSIDE, LEFT HAND SIDE BE GROUTED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
2. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM
3. CONNECTION TO EXISTING MANHOLE SHALL BE USING RIBBLED CONNECTIONS CONFORMING TO ASTM C-923 SUCH AS KOR-N-SEAL, A-LOK OR APPROVED EQUIV. HAVE A WALL THICKNESS OF 2" MINIMUM
4. USE A MINIMUM OF 1/2" OF NON-SHRINK GROUT BETWEEN RISERS, CONE AND FRAME.
5. RISERS, UNIT SECTIONS AND THE FRAME SHALL NOT BE MORE THAN ONE INCH OUT OF ALIGNMENT WITH THE MANHOLE. RISERS SHALL BE FLUSH WITH INSIDE EDGE OF MANHOLE.
6. SEE DWG NO 6-4 FOR CONCRETE MANHOLE COLLAR.

STORMWATER
TYPE 1 MANHOLE

APPROVED FOR PUBLICATION
Shawn Stalder 12/13/10
 City Engineer Date

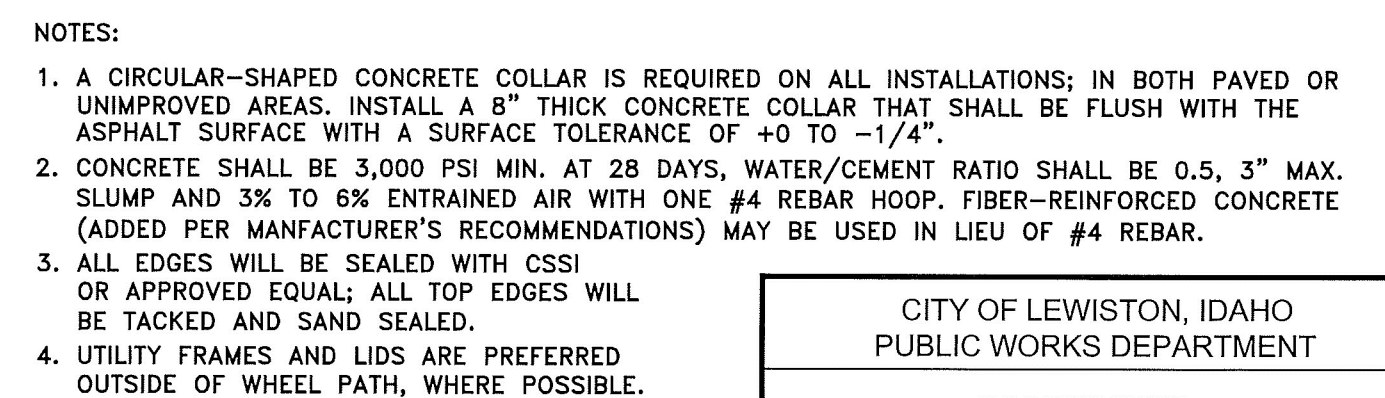
DWG. NO.
 6-2

**THE ESTATES AT CANYON CREST
PHASE III-C-1
STANDARD DRAWINGS
RPL DEVELOPMENT, LLC
LEWISTON, IDAHO**

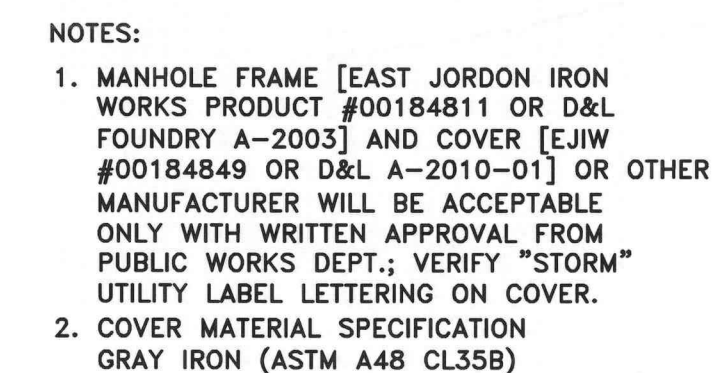
HEDCO

HAMMOND ENGINEERING & DEVELOPMENT CO.
23020 Penny Lane, Juliaetta, Idaho 83535
(208) 843-9303

C13



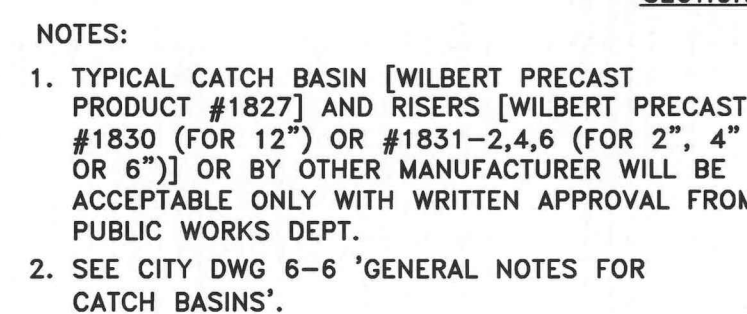
CITY OF LEWISTON, IDAHO PUBLIC WORKS DEPARTMENT	
CONCRETE MANHOLE COLLAR	
APPROVED FOR PUBLICATION <i>Shawn Smith</i> 1/27/15 City Engineer Date	DWG. NO. 6-4



CITY OF LEWISTON, IDAHO PUBLIC WORKS DEPARTMENT	STORMWATER MANHOLE FRAME AND COVER	
	APPROVED FOR PUBLICATION <i>Shawn Stedman</i> 12/12/10 City Engineer Date	DWG. NO. 6-5
	standards/2010-Standards/6-StormSewer/MH Frame_Cover.dwg	

\\Standards Dwg - City\Current Stds\6-StormSewer\General Notes - ssm.dwg

CITY OF LEWISTON, IDAHO PUBLIC WORKS DEPARTMENT	
STORMWATER SYSTEM GENERAL NOTES	
APPROVED FOR PUBLICATION <i>John Smith</i> <i>11/31/16</i> <i>City Engineer</i> <i>Date</i>	DWG. NO. 6-1



PUBLIC WORKS DEPT. 2. SEE CITY DWG 6-6 'GENERAL NOTES FOR CATCH BASINS'.	CITY OF LEWISTON, IDAHO PUBLIC WORKS DEPARTMENT	
	STORMWATER TYPE 1 CATCH BASIN	
	APPROVED FOR PUBLICATION <i>[Signature]</i> 12/13/10 City Engineer	DWG. NO. 6-8

AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535

***Relevant standard details were used during construction as required**

A circular professional engineer seal for Jack S. Hammond, State of Idaho. The seal contains the text "PROFESSIONAL ENGINEER • LAND SURVEYOR", "REGISTERED", "#2102", "STATE OF IDAHO", and "JACK S. HAMMOND". The seal is stamped over a handwritten signature "Jack S. Hammond" and the date "10/26/21".

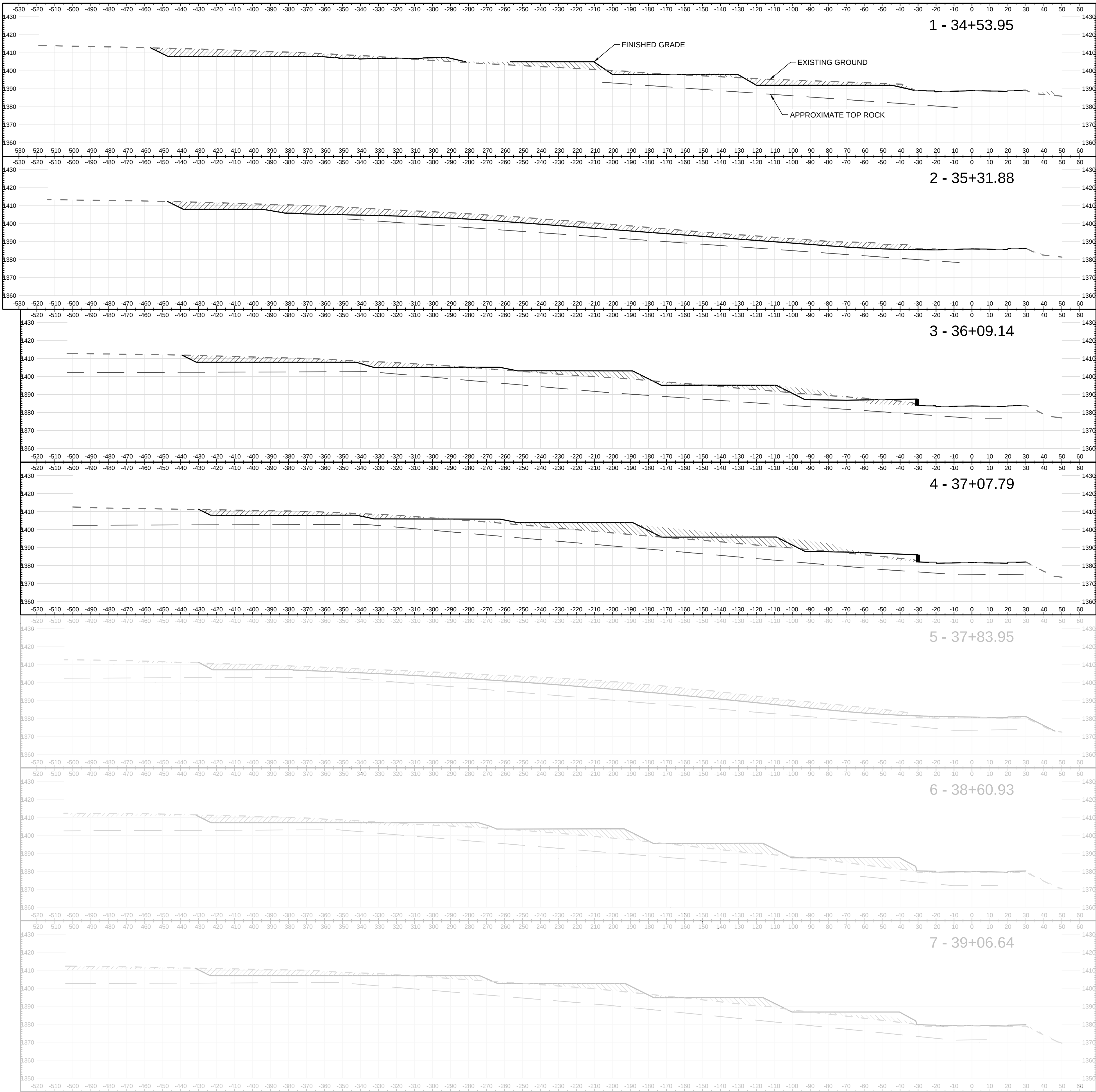
**THE ESTATES AT CANYON CREST
PHASE III-C-1
STANDARD DRAWINGS
RPL DEVELOPMENT, LLC
LEWISTON, IDAHO**



HAMMOND ENGINEERING & DEVELOPMENT CO.
23020 Penny Lane, Juliaetta, Idaho 83535
(208) 843-9303

SHEET

C14



AS CONSTRUCTED
HEDCO, Inc.
23020 Penny Lane
Juliaetta, Idaho 83535



REVISION		DESCRIPTION	CHECKED	APPD.
REV.	DATE			
B	04-12-21	Rev. Conc. Retaining Wall, Added Drain Line to Retaining Wall.		
		Moved Wall to behind ROW Line		



SHEET SIZE		D	CHECKED BY	JSH	DATE	JOB	SHEET	DRAWING #	2022-C1
1'-30"									
					02-01-21	2022			

THE ESTATES AT CANYON CREST PHASE IIIC-1
LOT GRADING X-SECTIONS
RPL DEVELOPMENT, LLC
LEWISTON, IDAHO



SHEET
C17

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
34+53.95	264.41	588.85	0.00	0.00	0.00	0.00
35+31.88	7.04	1289.05	430.40	3050.79	430.40	3050.79
36+09.14	340.78	428.52	653.04	3775.31	1083.43	6826.09
37+07.79	891.91	281.51	2960.92	2136.32	4044.36	8962.41
37+83.95	46.80	1262.44	1718.26	3243.57	5762.62	12205.98
38+60.93	709.50	395.96	1078.08	2364.00	6840.70	14569.98
39+06.64	486.33	410.76	1012.23	682.87	7852.93	15252.85