

PROJECT SITE

WARNER AVE

CEAR AVE

BURRELL AVE

14TH ST

16TH ST

18TH ST

UNDERLYING LAND

	ITEM	MATERIAL	TEST / STANDARD	ACCEPTANCE	TEST FREQUENCY	INSPECTOR/C.O.	DATE	INITIAL
1.	ALL UTILITY TRENCHES & STRUCTURES							
	TRENCH SUBGRADE	Native (6" to 8" Lifts Max.)	Moisture Density Relationship of Soils (AASHTO T-190) 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]			
	PIPE BEDDING	¾" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR ½" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOTM4-1-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T-190) 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]. Test top 6" or 12" cover.			
	1st FOOT [12"] OF FILL OVER PIPE	¾" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR ½" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOTM4-1-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T-190) 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]			
	TRENCH BACKFILL UNDER PROPOSED ROAD & SIDEWALK	¾" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR ½" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOTM4-1-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T-190) 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]			
	TRENCH BACKFILL UNDER EASEMENT / NON-TRAFFICKED AREA	Native Soil Free of Unsuitable Material w/ 4" Max. Particle Size (8" Max. Lift)	Moisture Density Relationship of Soils (AASHTO T-190) 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]			
	STRUCTURAL FILLS	As Spec'd by Engineer	As Spec'd by Engineer		As Spec'd by Engineer			
	2. STORM DRAIN MAINS							
	GASKETED PE Storm Sewer Pipe ALIGNMENT AND GRADE	Polyethylene, ADS N-12 or Equal	N/A	Certified & Visual by City	Per Plan	Certified & Visual by City		
	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 VIDEO INSPECTION	Concrete	City Standard	Public Works Policy No 2012-1	N/A	Certified & Visual by City		
	3. WATER MAINS							
	DUCTILE IRON or PVC WATER MAIN ALIGNMENT AND GRADE	AWWA C-151, C-600, C-905 (Class as Rec'd)	N/A	Certified & Visual by City	Per Plan	Certified & Visual by City		
	JOINTS (Deflection Proper Pipe Embedment)	N/A	AWWA C-600, AWWA C-605		Each Joint			
	THRUST BLOCKS	Concrete, 2500 PSI Mix	Per Approved Plans/or City Std Draw # 4-4		Each Joint	Certified & Visual by City		
	HYDROSTATIC PRESSURE	N/A	2 hrs. NTE Allowable Leakage Per AWWA C-600, AWWA C-605		150% Working Pressure OR 1¼ times the Working Pressure in the Water System			
	CHLORINATION/BACTERIA	N/A	AWWA C-651		Bacterial Testing two negative testing samples 24 hours apart	City of Lewiston		
	4. WASTEWATER MAINS							
	PVC WASTEWATER MAIN ALIGNMENT AND GRADE	PVC, SDR 35	ASTM 3034		N/A			
	JOINTS (Deflection Proper Pipe Embedment)	N/A	Per Manufacturer's Instructions		Per Plan			
	PRESSURE TEST	Concrete	Hydraulic Test		Each Joint			
	VIDEO INSPECTION	N/A	No Penetrations, Dents or Dimples, No Bellies > 0.02'	Public Works Policy No 2012-2	Between Access Holes			
	5. CONCRETE CURB, GUTTER & SIDEWALK							
	CONCRETE	CLASS 35B - Approved Mix Design Required with Min Cement Content of 550 Lb/Cy Max Water/Cement Ratio of .44, a WPA, and anAEA	AASHTO T-22 Compressive Strength of Concrete AASHTO T-23 Making Test Specimens AASHTO T-119 Slump of Hydraulic Cement Concrete AASHTO T-192 Air Content of Freshly Mixed Concrete AASHTO T-309 Temperature of Freshly Mixed Concrete WAQTC TM-2 Sampling Freshly Mixed Concrete	Min. 28 day Compressive Strength = 3000 psi; Water/Cement Ratio shall be 0.5 lb/lbs Max. Slump = 5 inches Air Content Percent = 6.0% ± 1.5 Temperature ± 5°F/- 20° + 0.02' from Design Grade/Alignment + 0.02'10' Segment	1 of Each Test Minimum per Day, or 1 of Each Test per 50 Cy			
	ALIGNMENT AND GRADE	N/A	Visual		Per 10' Section	City Approval		
	JOINTS/FLATNESS/STRAIGHTNESS	N/A	Visual		Per 10' Section			
	FINISH	N/A	Visual	Floated, Uniform, Light Broom Finish	Entire Surface Area			
	6. ASPHALTIC CONCRETE PAVING							
	HOT MIX ASPHALT	ITD Class II 1½" - Apprx Mix Design Required (2004 ITD Specs RG, TG, and TG3.05)	AASHTO T 166, Method C, Specific Gravity of HMA AASHTO T 206, Test for Maximum Specific Gravity WAQTC TM-8, In-Place Density of Bituminous Mixes	92%-95% Max. Theoretical Density	1Test Per 750 Ton-Min 1 Test			
	CRUSHED AGGREGATE BASE COURSE	¾"-minus Crushed Aggregate (4" Max. Lift) (Current ITD Spec 703.04) OR ½"-minus Crushed Aggregate (4" Max. Lift) (Current WDOTM4-1-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T-190) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	1 Tests Per 500 LF-Min 2 Tests			
	7. EROSION & SEDIMENT CONTROLS	Per Accepted Plan	Per Plan and Manufacturers' Instructions		1WK or After Every Rainfall			
	8. TRAFFIC CONTROL	Per Approved Plan	Current Adopted MUTCD/DATSSA		Continuous			
	9. RECORD DRAWINGS	AutoCAD Elect File, Bond Paper, 22" x 34" Min. Size	City Checklist		Before Public Improvements			
	10. ENGINEER'S CERTIFICATION				Accepted			
	Date Last Revised July 2014							

	PROPOSED SAN. SEWER		EXISTING SAN. SEWER
	PROPOSED STORM SEWER		EXISTING STORM SEWER
	PROPOSED WATER LINE		EXISTING WATER LINE
	PROPOSED FIRE PROTECTION		EXISTING FIRE PROTECTION
	PROPOSED FENCE LINE		EXISTING OVERHEAD ELECTRICAL LINE
	PROPOSED CATCH BASIN		EXISTING UNDERGROUND ELECTRICAL LINE
	PROPOSED MANHOLE		EXISTING FENCE LINE
	PROPOSED GATE VALVE		EXISTING CATCH BASIN
	PROPOSED FIRE HYDRANT		EXISTING MANHOLE
	PROPOSED THRUST BLOCK		EXISTING GATE VALVE
	PROPOSED CONTOUR LINE		EXISTING FIRE HYDRANT
	PROPOSED SPOT ELEVATION		EXISTING THRUST BLOCK
	PROPOSED CENTERLINE MONUMENT		EXISTING WATER METER
	PROPOSED CENTERLINE		EXISTING POWER POLE
	PROPOSED EASEMENT LINE		EXISTING CONTOUR LINE
	PROPERTY LINE		EXISTING SPOT ELEVATION
	PROJECT BOUNDARY		EXISTING UTILITY
	SILT FENCE		EXISTING PROPERTY LINE
			EXISTING CENTERLINE MONUMENT

OWNER

DK Holdings, LLC
247 Thain Road, STE 107
Lewiston, Id 83501
208 305 9164

ALLWEST TESTING & ENGINEERING, LLC
2705 E. MAIN STREET
LEWISTON, IDAHO

SANITARY SEWER	COSD	208-746-9689
WATER	L.O.I.D. (Barney Metz)	208-746-8235
POWER	AVISTA (Colby Witters)	509-780-1475
TELECOM.	CENTURY LINK (Julio Mendez)	208-798-8380
CABLE T.V.	CABLEONE (Tom Donahue)	208-791-5032

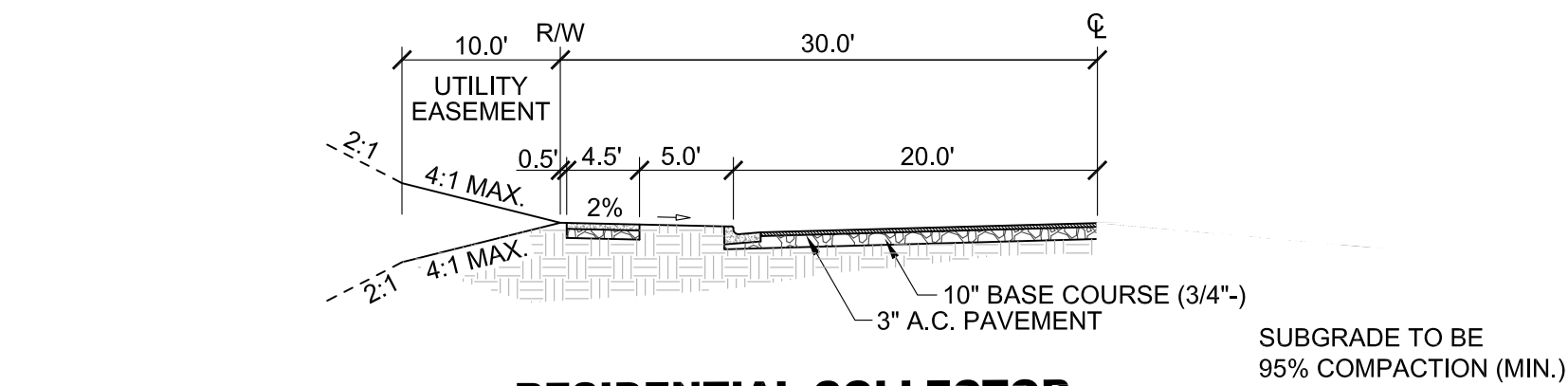


1.	Mobilization	Lump Sum
2.	Project Earthwork	Lump Sum
3.	8" Base Course	6500 Sq. Yds
4.	3" A.C. Pavement	6000 Sq. Yds
5a.	Conc. Rolled Curb	1200 L.F.
5b.	Conc. High Back Curb	1300 L.F.
6.	Catch Basins	7 Each
7.	12" PVC Storm Drain	520 L.F.
8a.	8" PVC Sanitary Sewer	284 L.F.
8b.	12" PVC Sanitary Sewer	89 L.F.
8c.	Sanitary Sewer Services	670 F.T.
9.	4' Dia. San. Sewer MH	34 V.F.
9b.	4' Dia. Storm Sewer MH	15 V.F.
10a.	8" C900 PVC Water Main	580 L.F.
10b.	12" C900 PVC Water Main	435 L.F.
11a.	8" Gate Valves	1 Each
11b.	12" Gate Valves	4 Each
12a.	4.5' Conc. Sidewalk	7800 S.F.
12b.	Pedestrian Ramps	6 Each
12c.	Conc. Driveway Approaches	5 Each
13.	Utilities Tracing	2100 L.F.
14.	Utilities Conduit	Advance
15.	Fire Hydrants	2 Each
16.	Water Services	25 Each
17a.	Stormwater Inlet Aprons	4 Each
17b.	Stormwater Infiltration Trenches	170 L.F.
18.	Stormwater Detention Basin	Lump Sum
18.	Stormwater Management	Lump Sum

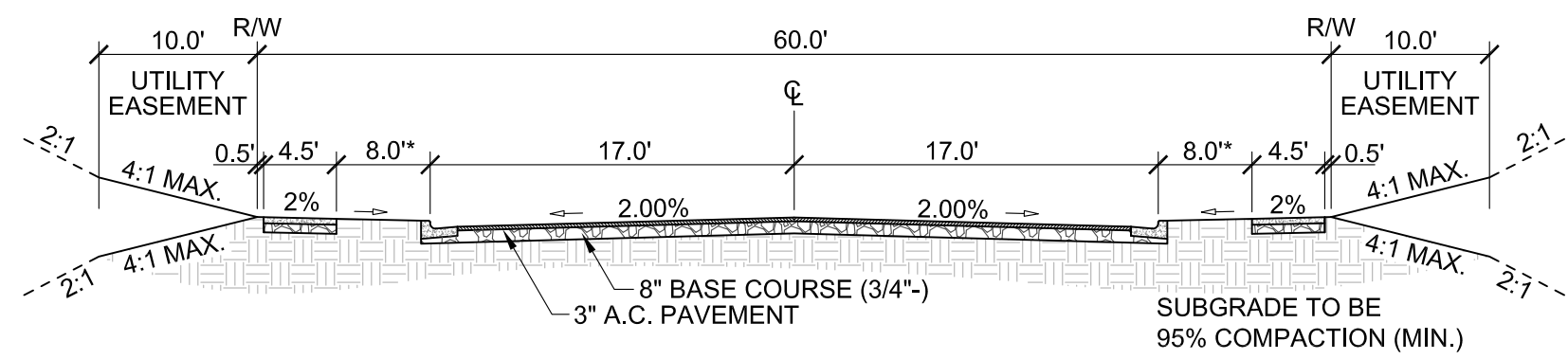
C1	GENERAL NOTES & DETAILS
C2	EXISTING SITE CONDITIONS
C3	CONSTRUCTION EROSION & SEDIMENT CONTROL PLAN
C4	SITE DEVELOPMENT PLAN
C5	SITE PAVING & STORMWATER PLAN
C6	FRANCHISE UTILITIES PLAN
C7	15TH STREET PLAN & PROFILE
C8	WESTVIEW COURT PLAN & PROFILE
C9	WARNER AVENUE CURB PLAN & PROFILE
C10	INTERSECTION DETAILS / ALLEY PLAN & PROFILE

C11	INTERCEPTOR SANITARY SEWER
C12	STORM SEWER PLAN & PROFILE
C13	15TH STREET X-SECTIONS
C14	WESTVIEW COURT X-SECTIONS
C15	ALLEY X-SECTIONS
C16	STANDARD DRAWINGS
C17	" "
C18	" "
C19	" "
C20	" "

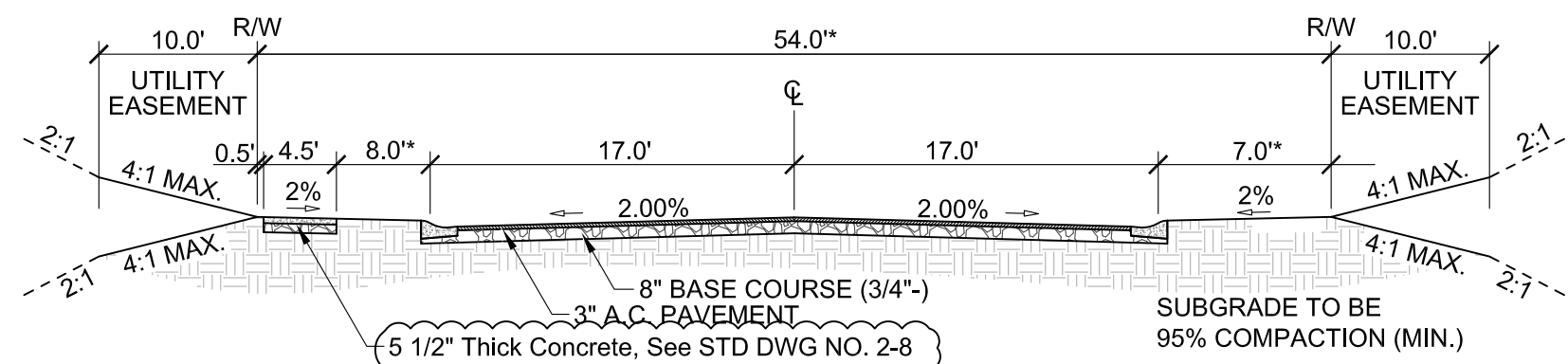
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SHEET		HAMMOND ENGINEERING & DEVELOPMENT CO. 520 BRYDEN PARK LEWISTON, IDAHO 83501 (208) 798-5422		C0	
SCALE	SHEET SIZE	ENGINEER	LAND	REVISION	
DRAWN BY MEE	CHECKED BY USH			DESCRIPTION	CHECKED APPD.
DATE 03-19-15	JOB # 1432			REVIEW DATE A 04-23-15	REVIEWED DATE 04-16-15
SHEET					
DRAWING # 1432-C0					



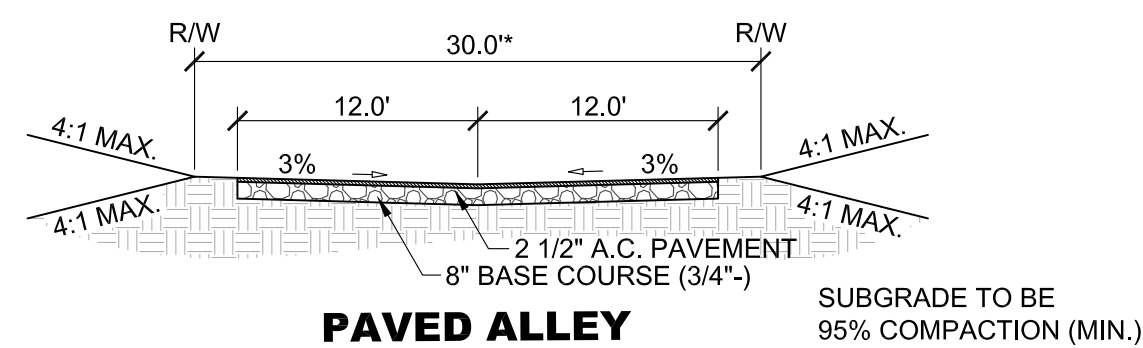
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STD. DWG. NO. 3-9
(WARNER AVENUE)



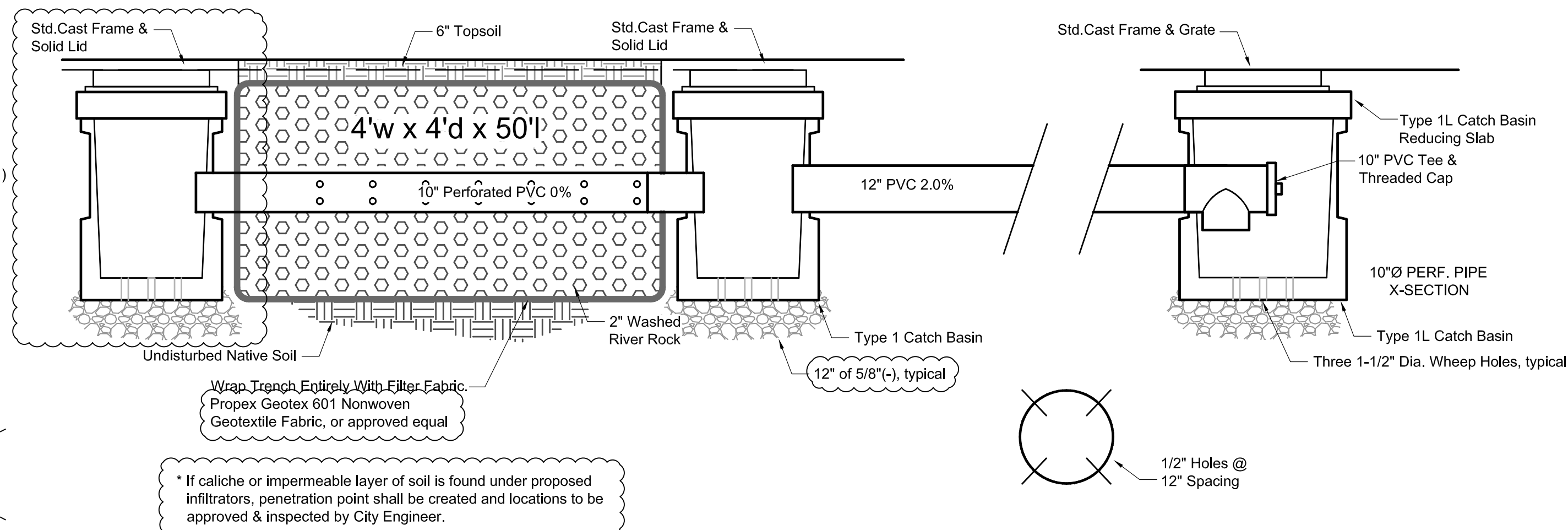
LOCAL RESIDENTIAL STREET
*MODIFIED STD. DWG. NO. 3-3
(15TH STREET)



LOCAL CUL-DE-SAC STREET
*MODIFIED STD DWG 3-5
(WESTVIEW COURT)

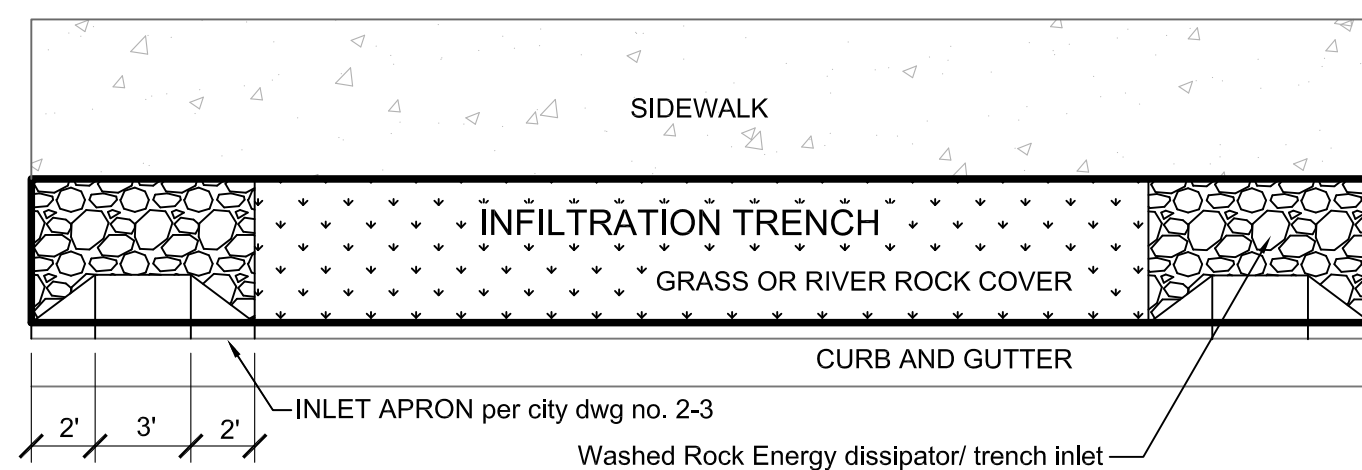


PAVED ALLEY
*MODIFIED STD DWG 3-10
(ALLEY)



ALLEY STORMWATER INFILTRATION TRENCH SYSTEM

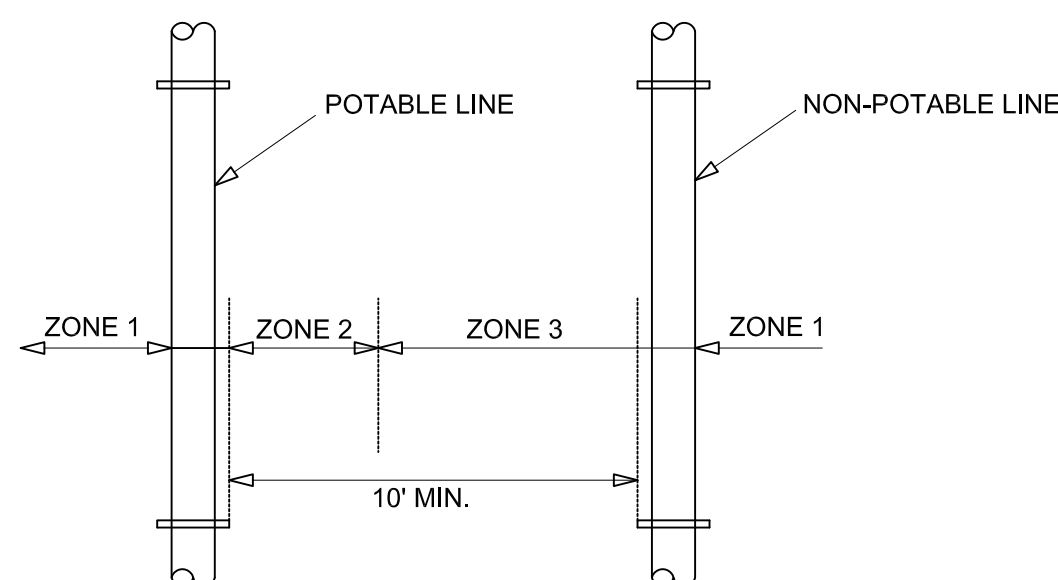
SECTION A
NTS 1432-C10



TYPICAL INFILTRATION TRENCH DETAIL

SECTION B
NTS 1432-C5

LINE SEPARATIONS



ZONE 1: (MORE THAN 10 FEET APART)

ZONE 2: (FROM 6 TO 10 FEET APART)

* Potable and Non-Potable mains separated by at least 6 feet at outside walls and

* Potable main higher in elevation than Non-Potable mains and
* Non-Potable mains constructed to with Potable water class pipe and pressure tested for water-tightness.

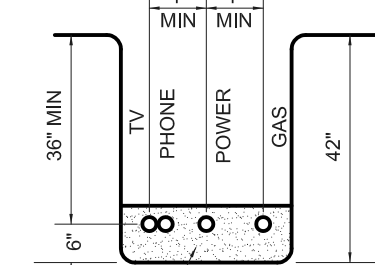
Zone 3: (CLOSER THAN 6 FEET APART)

* 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.

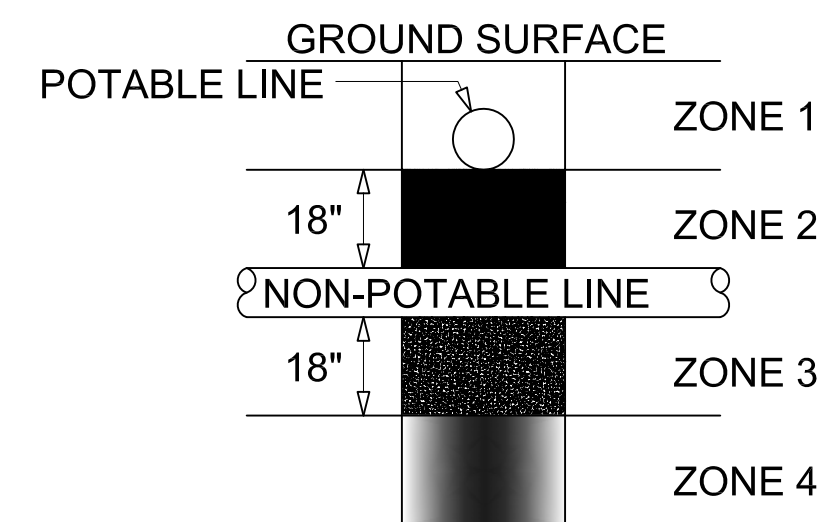
NOTES:

- ALL EARTHWORK SHALL BE COMPACTED TO 95% OF AASHTO T-99 PROCTOR VALUE.
- ALL POTABLE WATER LINES RUNNING FROM MAIN TO METERS WILL BE 1" AND METERS WILL BE 3/4" TYP.
- SANITARY SEWERS SHALL HAVE 3.0' MIN. COVER & SERVICE LATERALS SHALL HAVE 2.0' MIN. GRADE. STORM DRAINS SHALL HAVE 2.0' MIN. COVER
- ALL WORK DONE WITHIN CITY RIGHT OF WAY TO BE DONE IN ACCORDANCE WITH CITY STANDARDS.
- WATER MAIN PIPING, VALVES, FIRE HYDRANTS AND WATER METERS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH L.O.I.D. STANDARDS.
- SANITARY SEWER PIPING AND MANHOLES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH C.O.S.D. STANDARDS.
- VIDEO INSPECTION OF WASTEWATER MAINS REQUIRED; SEE PUBLIC WORKS POLICY # 2012-2
- ALL AVISTA CONDUITS WILL BE SCHEDULE 40 GRAY ELECTRICAL CONDUIT (LARGE SWEEPS, LONG COUPLERS)
- A RIGHT-OF-WAY PERMIT SHALL BE OBTAINED THROUGH THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY WORK WITHIN PUBLIC RIGHT-OF-WAY.
- 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 EXISTING 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
- SITE DISTANCES FOR ABUTTING PROPERTIES, DRIVEWAYS AND INTERSECTIONS SHALL BE MAINTAINED.
- ALL CONSTRUCTION NOT SPECIFICALLY MENTIONED OR SHOWN SHALL CONFORM TO CITY ORDINANCES AND STANDARDS AND C.O.S.D. & L.O.I.D. STANDARD DRAWINGS & TECHNICAL SPECS.
- 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.

FRANCHISE UTILITIES TRENCH DETAIL



LINE CROSSINGS



- ZONE 1:**
A) Potable Water and Non-potable Mains and Service Lines must be separated by at least 18 inches and
B) One full, uncut length of Non-Potable pipe must be centered so that the joints are as far as possible from the crossing.

ZONE 2: Potable line < 18" over the top of Non-Potable line (Main and Services).

A) One full, uncut length of Non-Potable Water pipe must be centered on the crossing so that the joints are as far as possible from the Non-Potable line and either B)

Non-Potable line must be constructed to Potable water pipe standards and pressure tested for water tightness for a horizontal distance of 10 feet on both sides of crossing.

or C)
Non-Potable or potable line must be cased in a larger diameter carrier pipe for a horizontal distance of 10 feet on both sides of the crossing, with no joints.

ZONE 3: Same requirements as Zone 2 except the Non-Potable line must also be supported above the crossing to prevent settling.

ZONE 4: Same requirements as Zone 1 except the Non-potable line must also be supported above the crossing to prevent settling.

Sewage 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.

REV	DATE	DESCRIPTION	CHECKED	APPROVED
A	03-30-15	Revised IDAPA Note Reference #		
B	04-22-15	Revised as per City Review Comments dated 04-16-15		

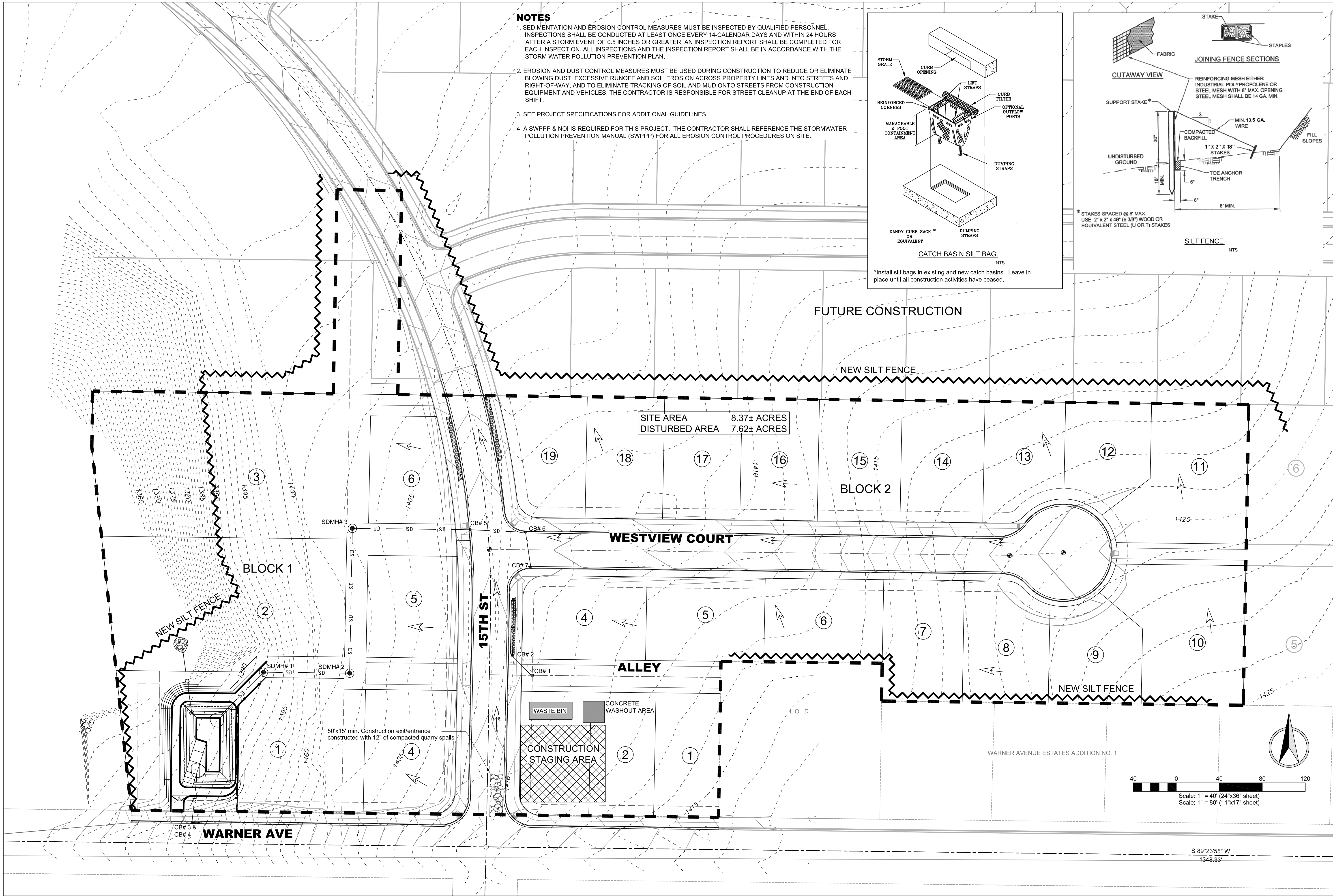
ENGINEER	REGISTERED	PROFESSIONAL	NO. 2102	DATE 4/23/15
SIGNED BY: [Signature]				

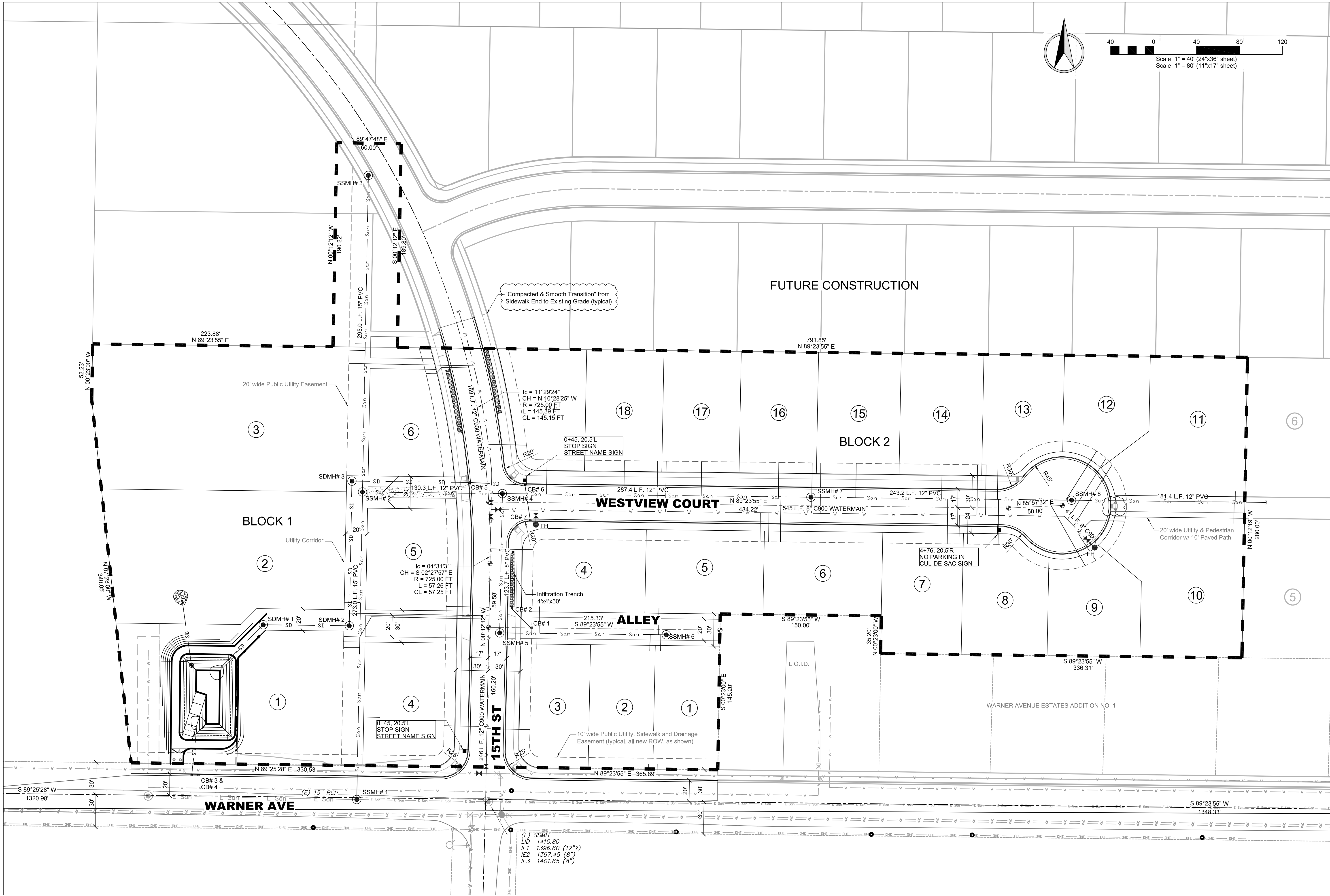
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NORTHEAST CROSSING ADDITION	
PHASE I/PROJECT 1	
GENERAL NOTES & DETAILS	
DK HOLDINGS, LLC	
LEWISTON, IDAHO	

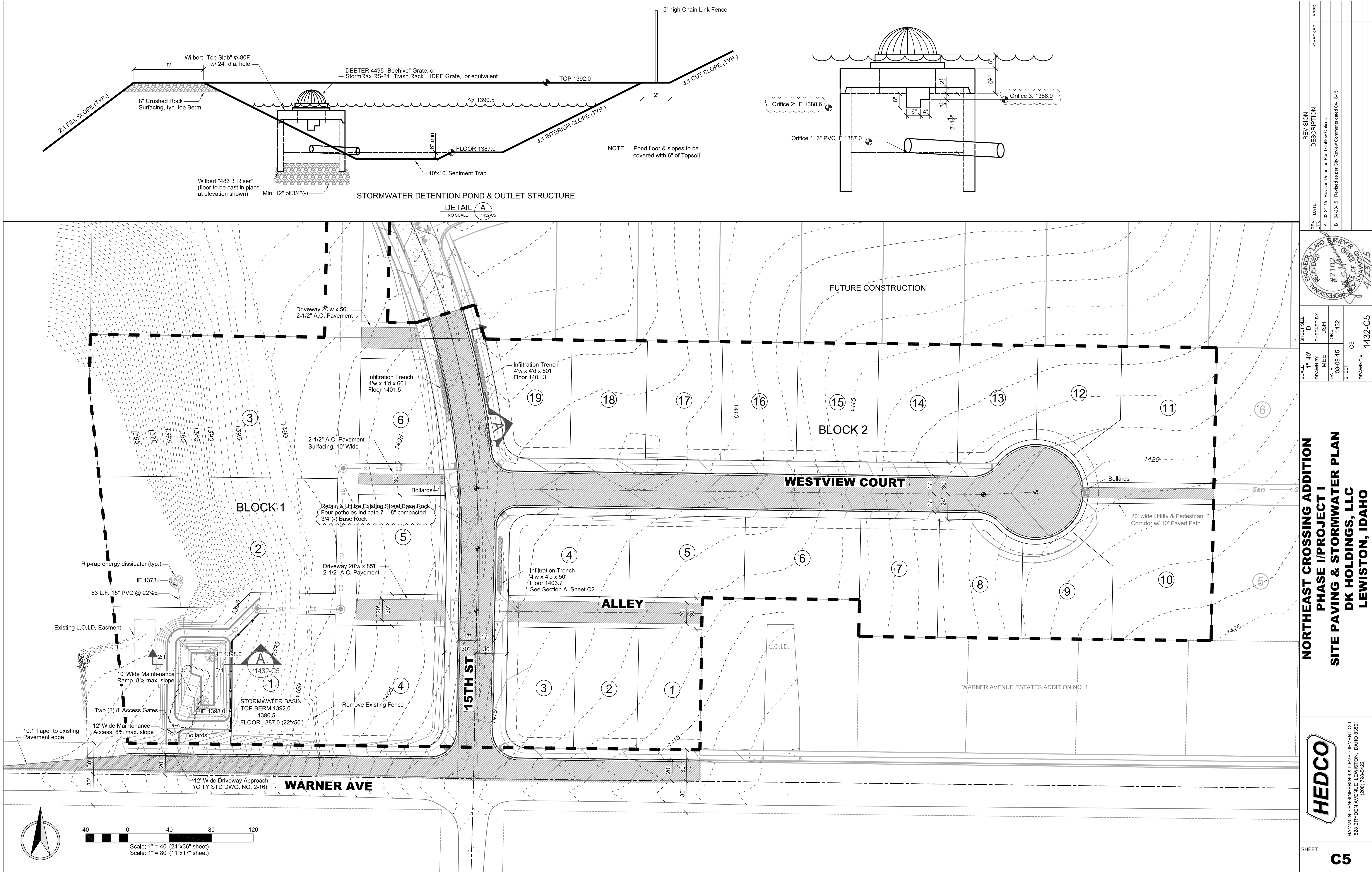
HEDCO
HAMMOND ENGINEERING & DEVELOPMENT CO. 528 BRYDEN AVENUE LEWISTON, IDAHO 83501 (208) 750-5422

SHEET	C1
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REVISION		SHEET SIZE	D	SCALE	DRAWN BY	CHECKED BY	DATE	REV	DATE	LITER	APPROVED
DESCRIPTION	DATE										
NORTHEAST CROSSING ADDITION PHASE I/PROJECT I SITE DEVELOPMENT PLAN DK HOLDINGS, LLC LEWISTON, IDAHO											
HAMMOND ENGINEERING & DEVELOPMENT CO. 528 BRYDEN AVENUE LEWISTON, IDAHO 83501 (208) 750-5422											
SHEET C4											



**NORTHEAST CROSSING ADDITION
PHASE I/PROJECT 1
SITE PAVING & STORMWATER PLAN
DK HOLDINGS, LLC
LEWISTON, IDAHO**

HEDCO
HAMMOND ENGINEERING & DEVELOPMENT CO.
528 BRYDEN AVENUE LEWISTON, IDAHO 83801
(208) 780-5422

REV	DATE	DESCRIPTION	CHECKED	APPROVED
A	03-24-15	Revised Detention Pond Outflow Orifices		
B	04-22-15	Revised as per City Review Comments dated 04-16-15		

ENGINEER, LAND SURVEYOR
REGISTERED
#2102
DAVID S. SHAW
4/23/15

SCALE
1"=40'
DRAWN BY: MEE
CHECKED BY: JSH
DATE: 03-09-15
SHEET: C5
DRAWING #: 1432-C5

LEGEND

AVISTA

HANDHOLE

TRANSFORMER

JUNCTION BOX

E1

POWER (PRIMARY)

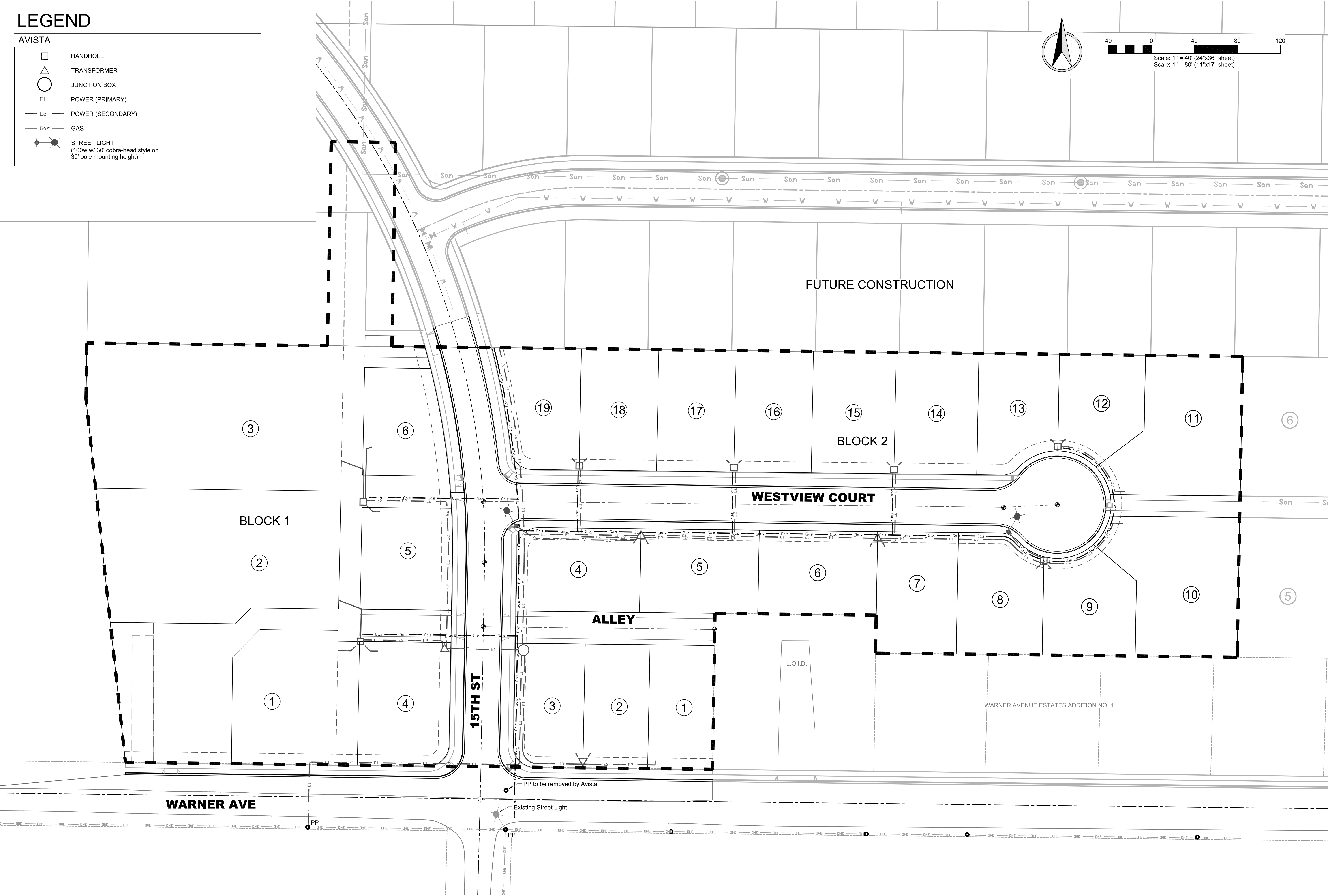
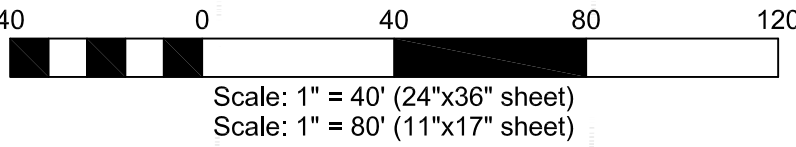
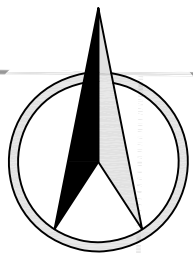
E2

POWER (SECONDARY)

Gas

GAS

STREET LIGHT
(100w w/ 30' cobra-head style on
30' pole mounting height)



REVISION
DATE
DESCRIPTION

REV
LITER
DATE
DESCRIPTION

APPROVED
DATE
DESCRIPTION

SCALE
1"=40'

DRAWN BY
MEE

CHECKED BY
JSH

DATE
03-19-15

SHEET
1432

DRAWING #
1432-C6

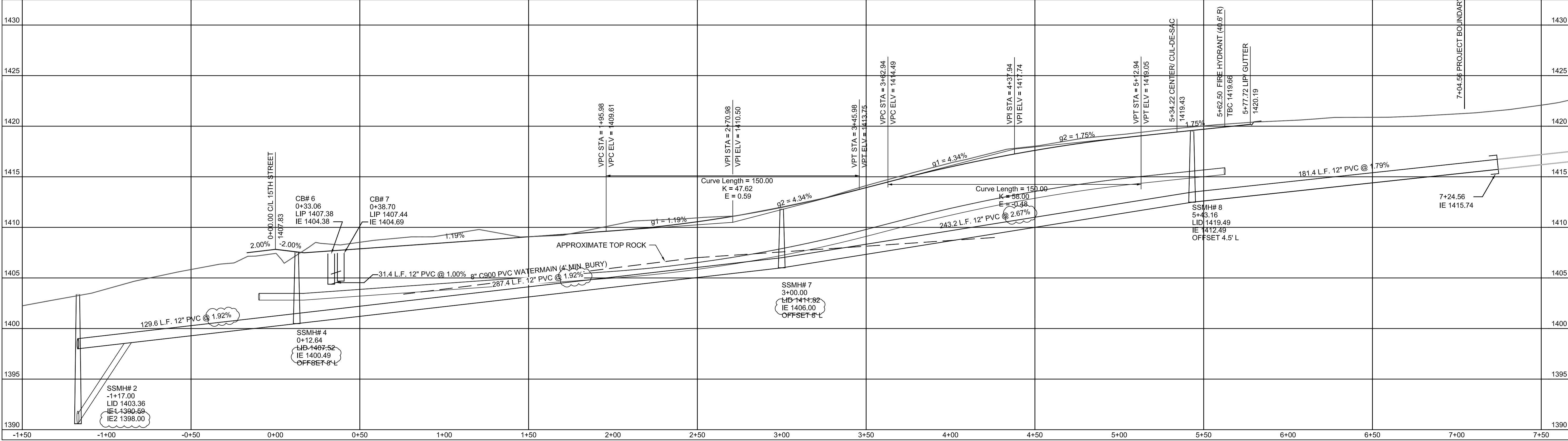
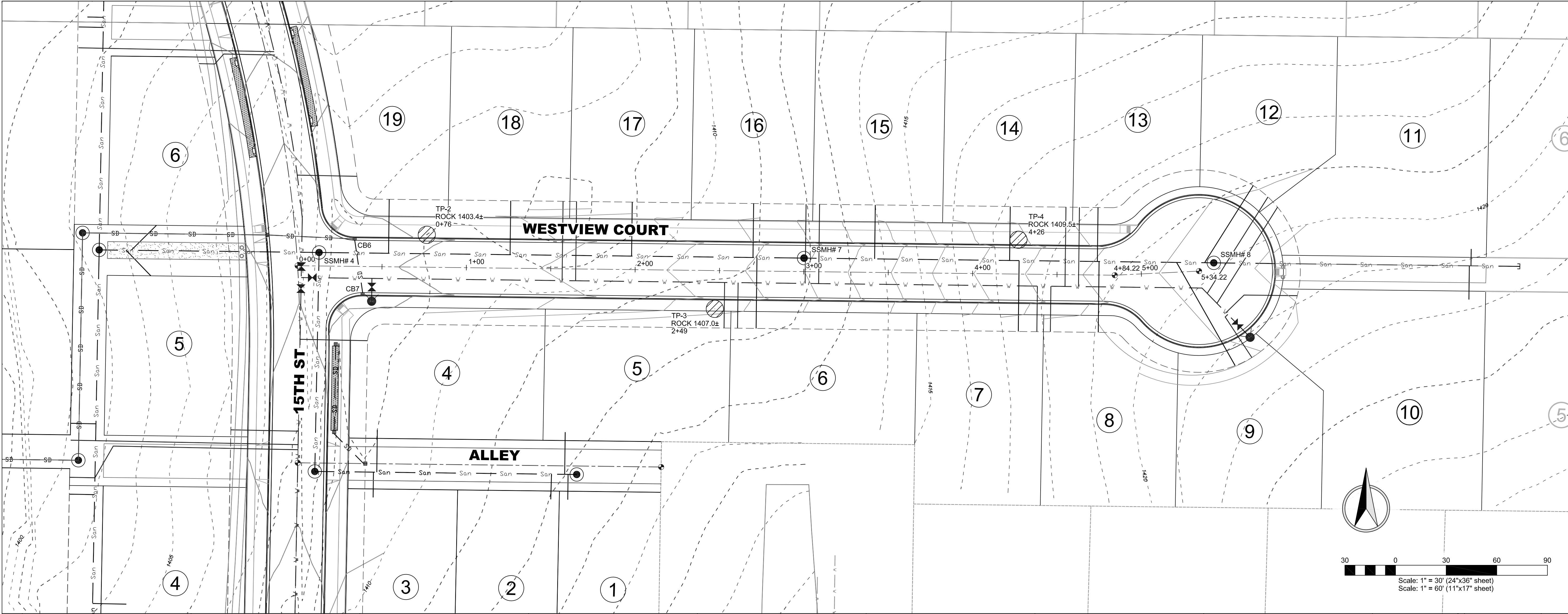
REGISTERED PROFESSIONAL ENGINEER
#2102
DAVID SHAW
4/23/15

NORTHEAST CROSSING ADDITION
PHASE I/PROJECT I
FRANCHISE UTILITY PLAN
DK HOLDINGS, LLC
LEWISTON, IDAHO

HEDCO

HAMMOND ENGINEERING & DEVELOPMENT CO.
528 BRYDEN AVENUE LEWISTON, IDAHO 83501
(208) 750-5422

SHEET
C6



REVISION		DATE	DESCRIPTION	CHECKED	APPROVED
REV	DATE				
LTR					
A	04-15-15		"Option B" revised Sanitary Sewer Inverts		
B	04-22-15		Revised as per City Review Comments dated 04-16-15		

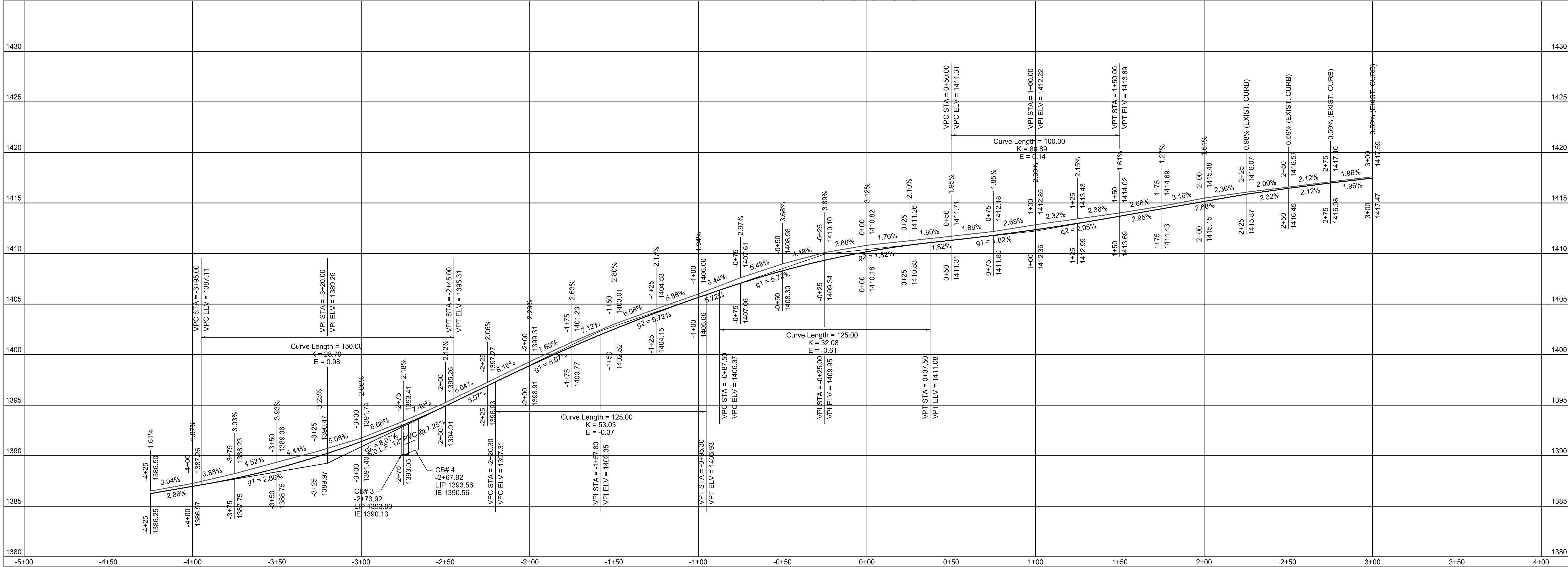
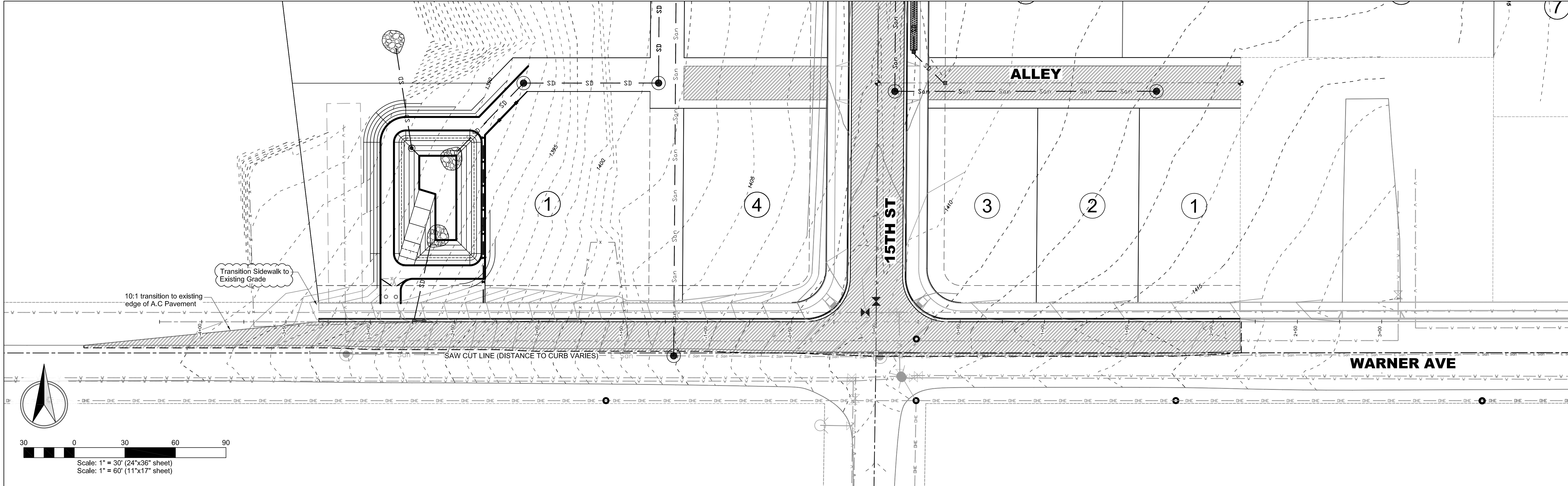
REGISTERED PROFESSIONAL ENGINEER - LAND SURVEYOR
#2102
STATE OF IDAHO
4/23/15

SCALE
1"=30'
DRAWN BY
MEE
CHECKED BY
JSH
DATE
03-19-15
JOB #
1432
SHEET
C8
DRAWING #
1432-C8

NORTHEAST CROSSING ADDITION
PHASE I/PROJECT I
WESTVIEW COURT PLAN & PROFILE
DK HOLDINGS, LLC
LEWISTON, IDAHO

HEDCO
HAMMOND ENGINEERING & DEVELOPMENT CO.
528 BRYDEN AVENUE LEWISTON, IDAHO 83501
(208) 780-5422

SHEET
C8



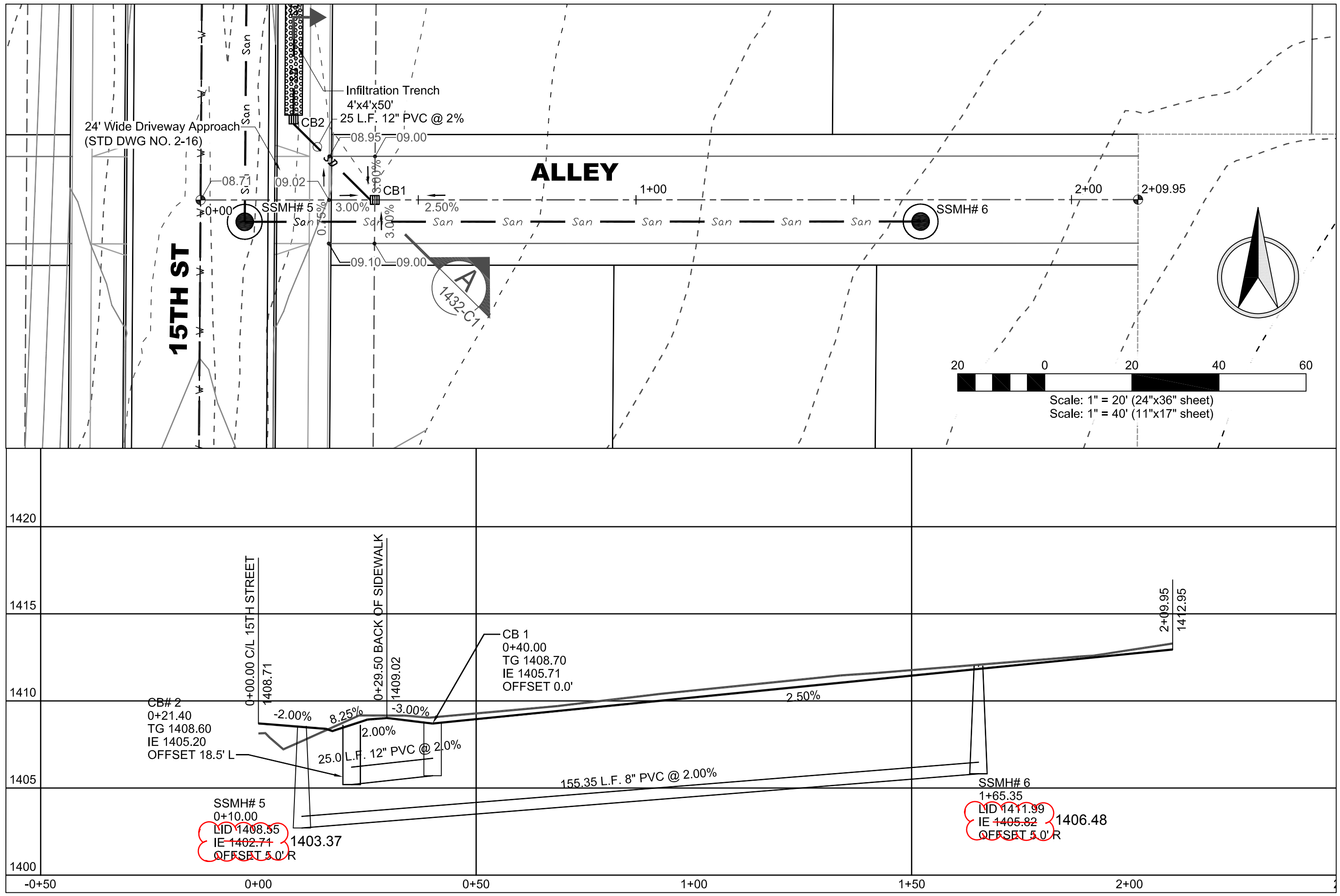
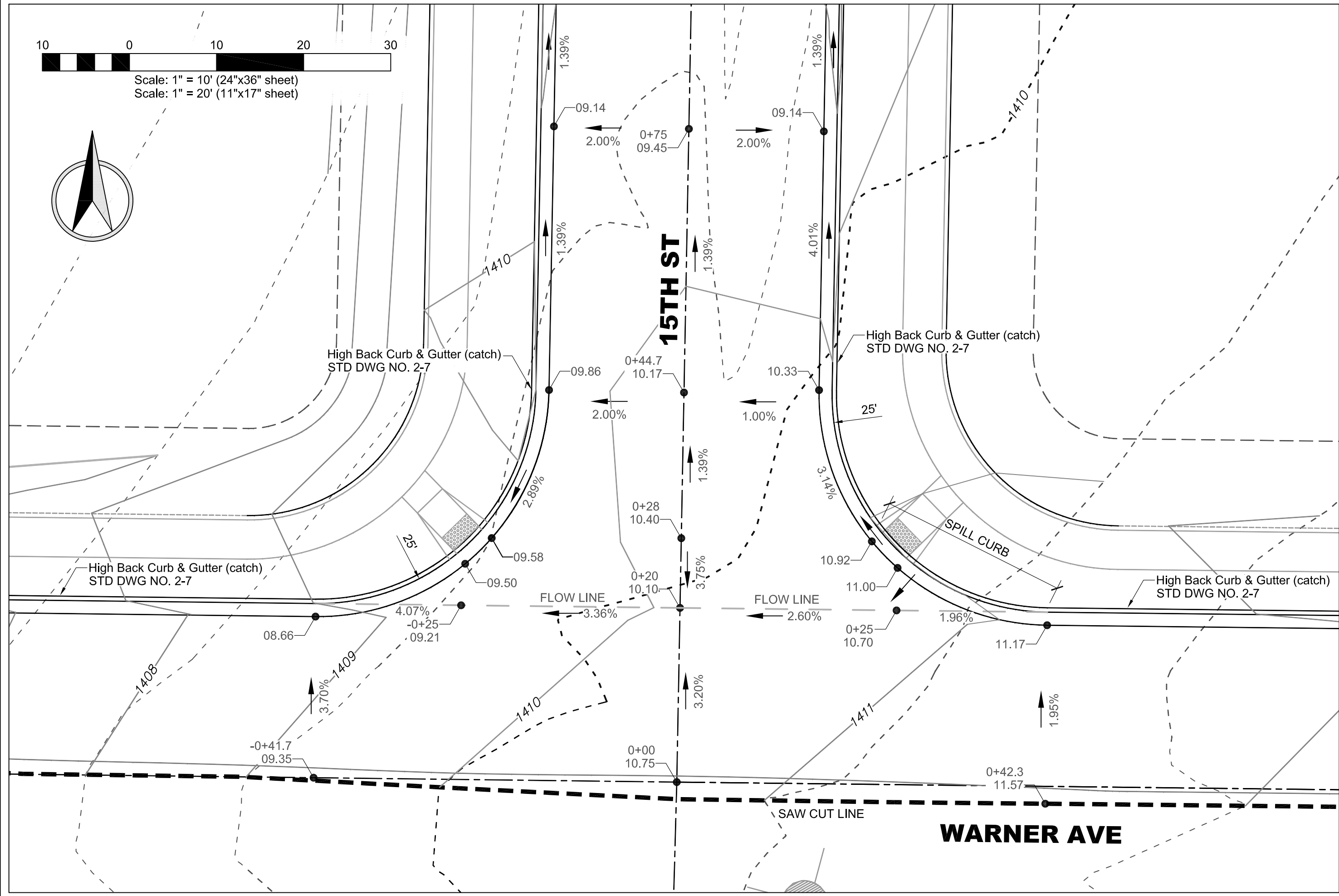
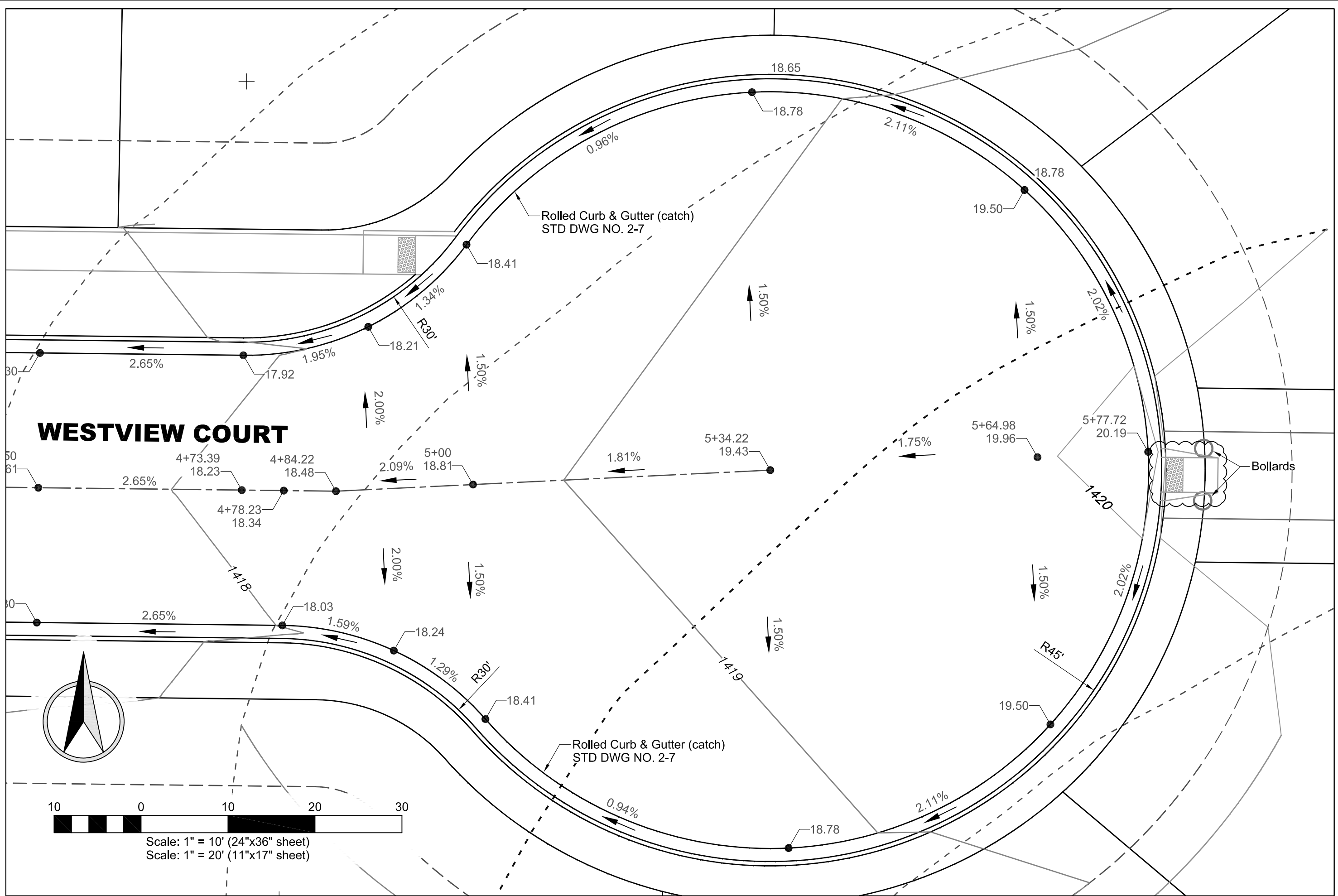
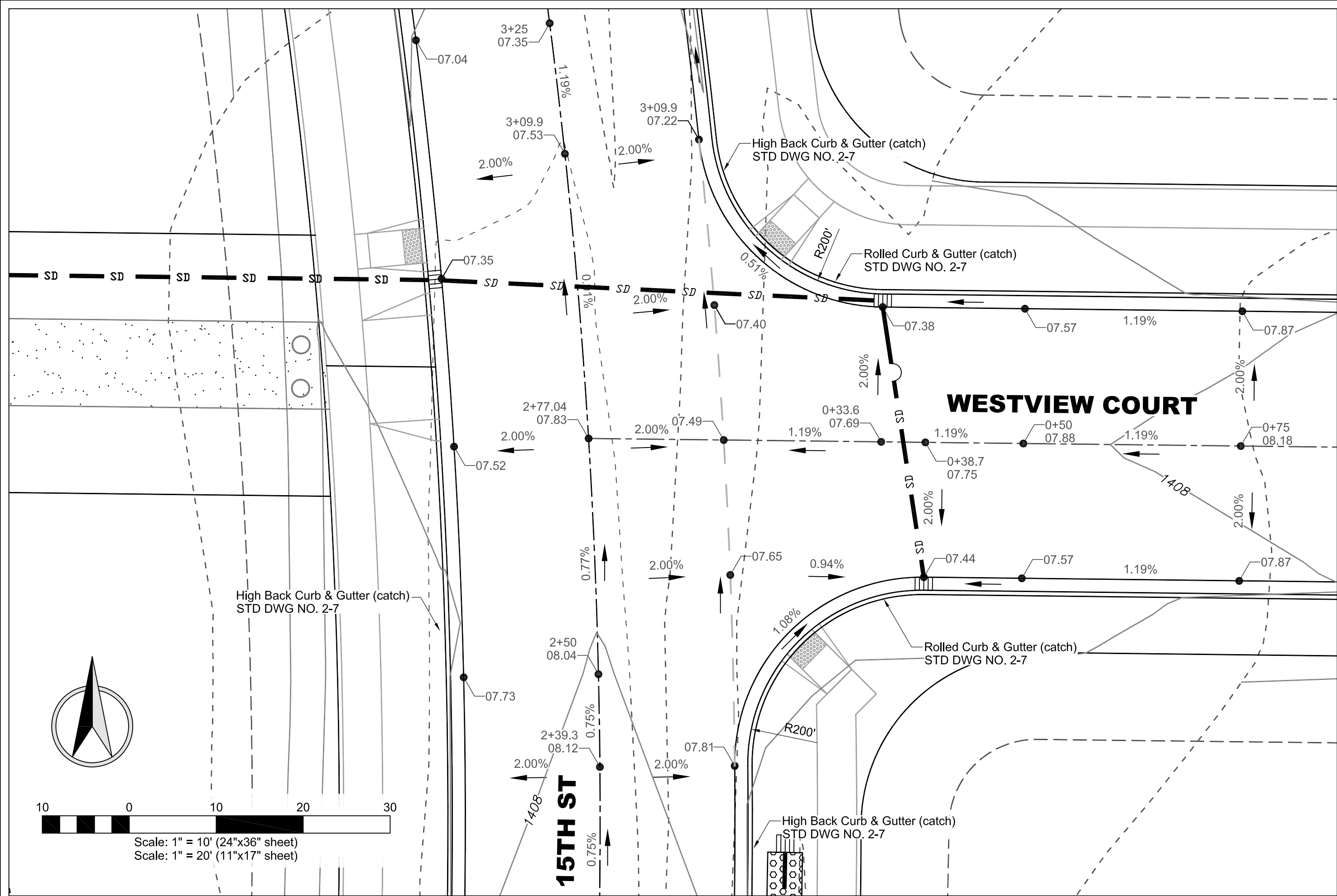
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A	04-25-15	Revised as per City Review Comments dated 04-16-15		

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1"=20'	D	MEC	JSH	03-19-15	1432	1432-C9

**NORTHEAST CROSSING ADDITION
PHASE I/PROJECT I
WARNER AVENUE CURB PLAN & PROFILE
DK HOLDINGS, LLC
LEWISTON, IDAHO**

HEDCO
HAMMOND ENGINEERING & DEVELOPMENT CO.
528 BRYDEN AVENUE LEWISTON, IDAHO 83501
(208) 750-0422

C9



REVISION		DATE	DESCRIPTION	CHECKED	APPROVED
REV	LTR	DATE	DESCRIPTION	CHECKED	APPROVED
1	A	04-22-15	Revised as per City Review Comments dated 04-16-15		

ENGINEER	LAND SURVEYOR
REGISTERED	REGISTERED
#2102	#2102
NAME OF SHAW	NAME OF SHAW
4/23/15	4/23/15

SHEET SIZE	D
SCALE AS SHOWN	
DRAWN BY	ME
CHECKED BY	JSH
DATE	03-19-15
JOB	1432
SHEET	C10
DRAWING #	1432-C10

NORTHEAST CROSSING ADDITION - PH I/PROJECT I

INTERSECTION DETAILS/ ALLEY PLAN & PROFILE

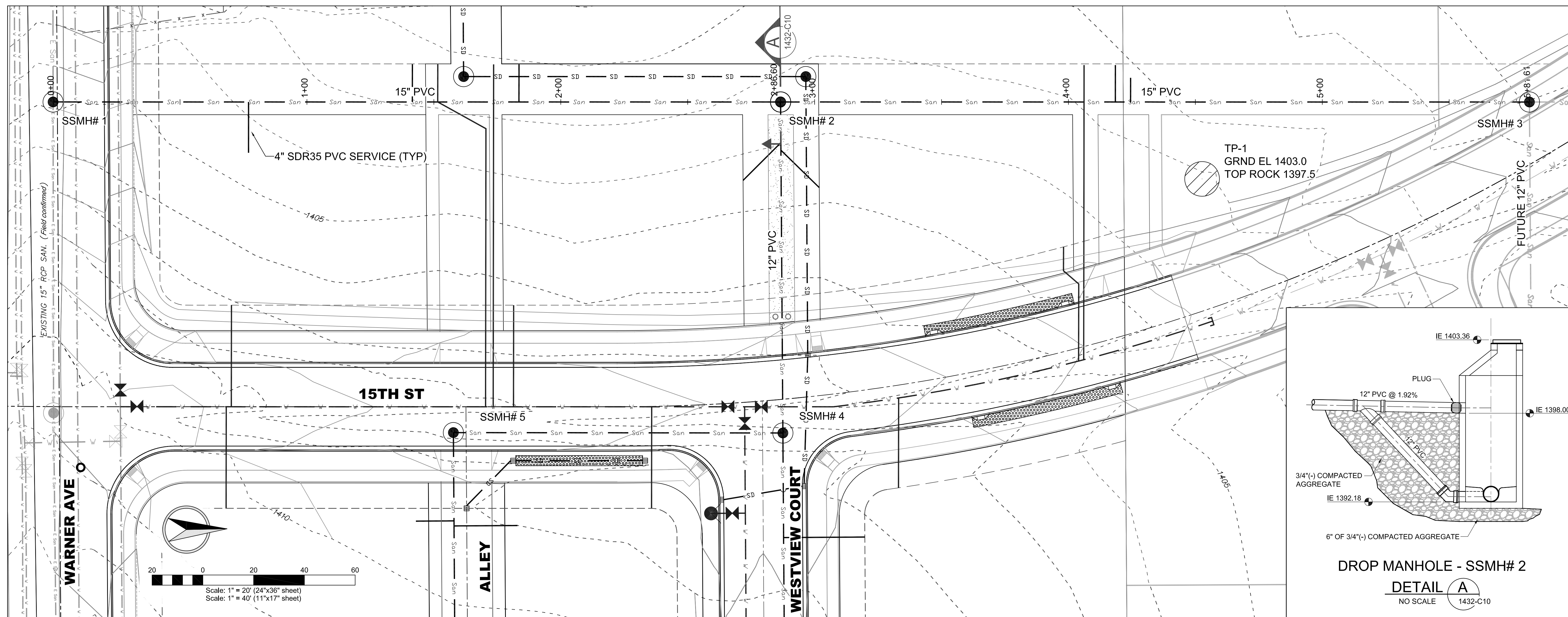
DK HOLDINGS, LLC

LEWISTON, IDAHO

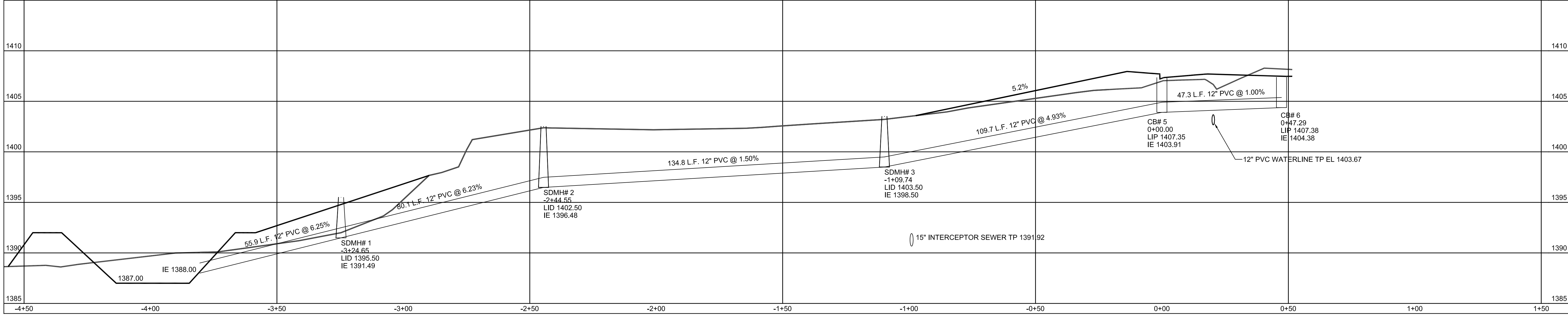
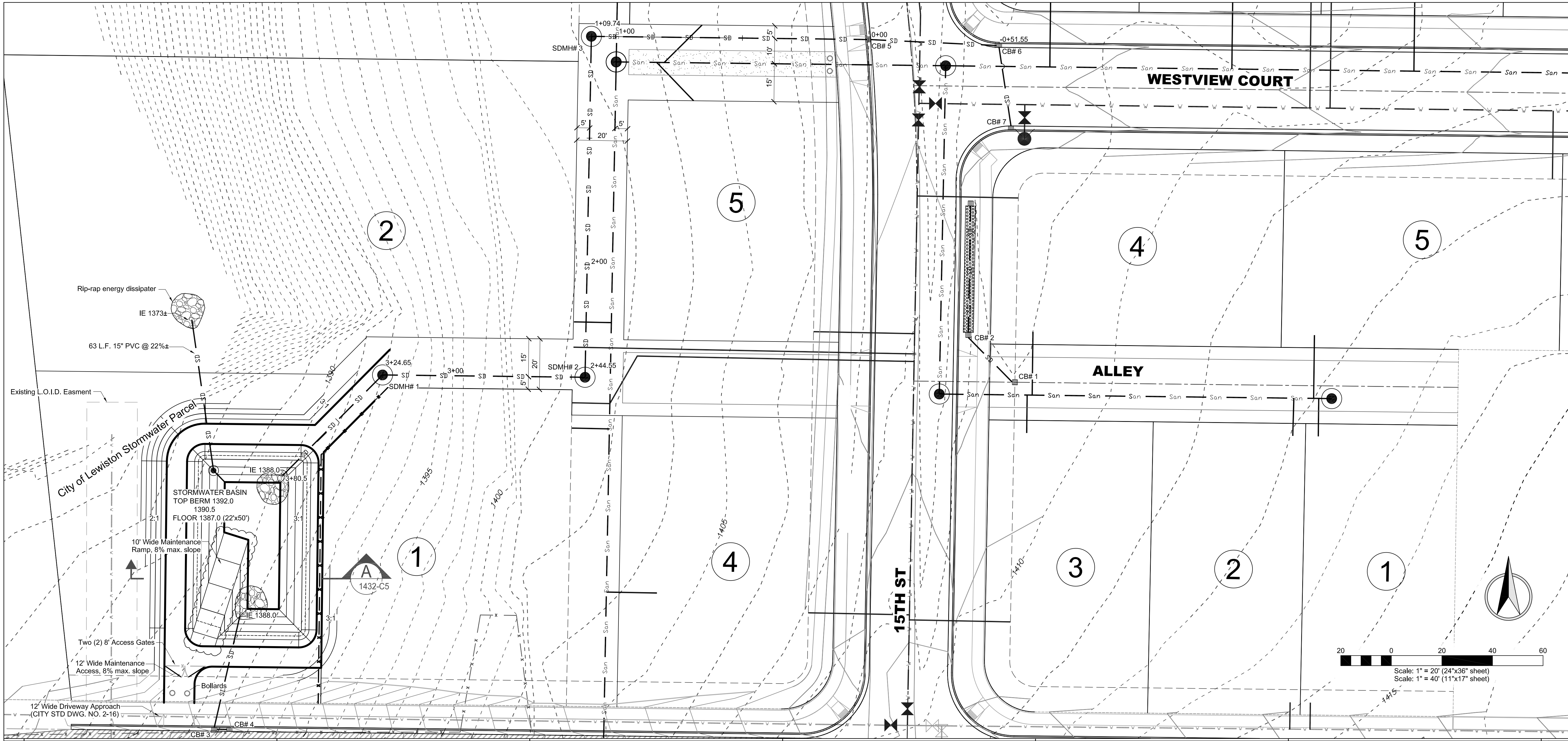
HEDCO

HAMMOND ENGINEERING & DEVELOPMENT CO.
528 BRYDEN AVENUE LEWISTON, IDAHO 83501
(208) 750-5422

C10



NOT PART OF	THIS CONTRACT
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REV	DATE	DESCRIPTION	CHECKED	APPROVED
1	04-23-15	Revised as per City Review Comments dated 04-16-15		

REGISTERED PROFESSIONAL ENGINEER - LAND SURVEYOR
#2102
DAVID S. SHAW
4/23/15

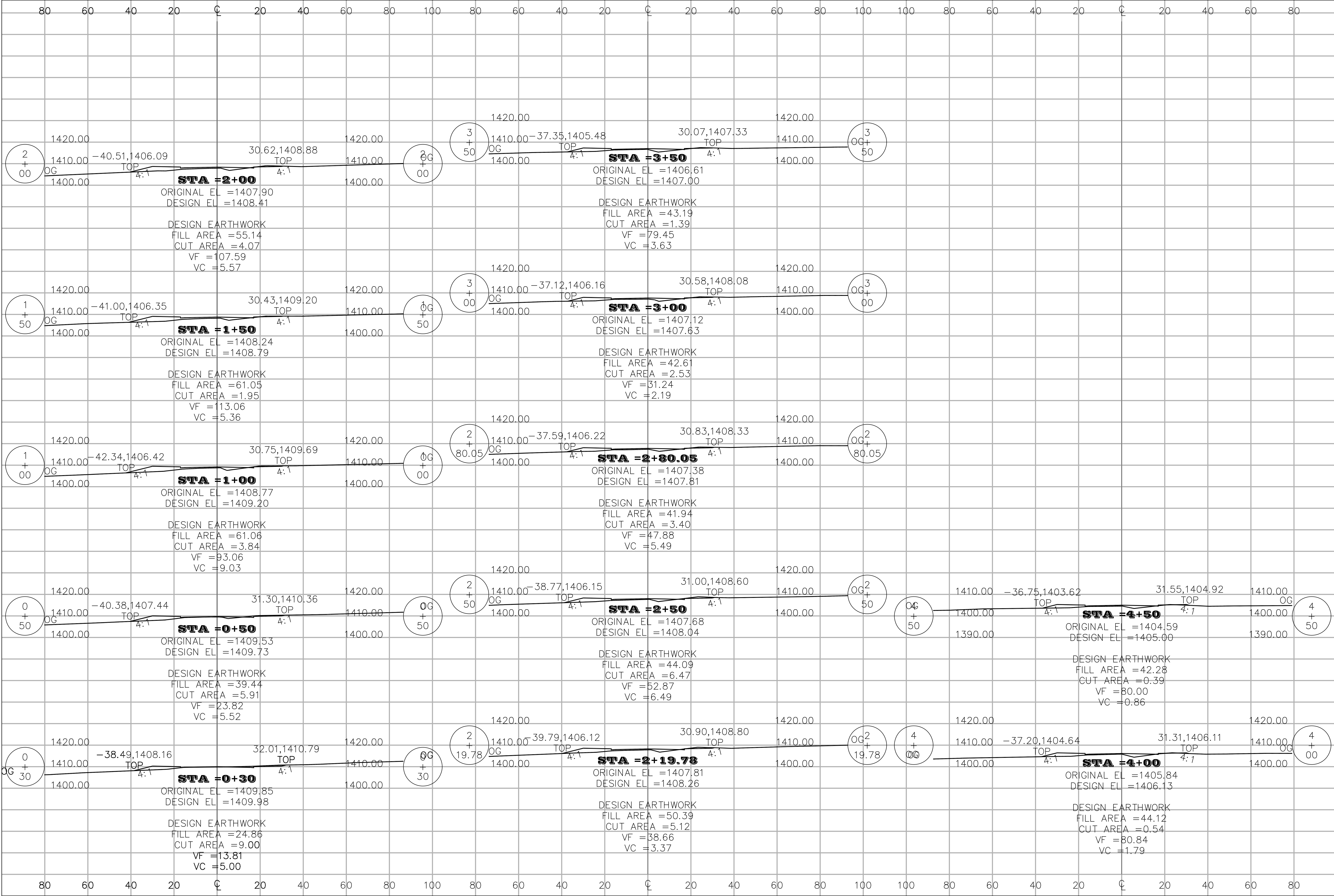
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**NORTHEAST CROSSING ADDITION
PHASE I/PROJECT I
STORM LINE PLAN & PROFILE
DK HOLDINGS, LLC
LEWISTON, IDAHO**

HEDCO

HAMMOND ENGINEERING & DEVELOPMENT CO.
528 BRYDEN AVENUE LEWISTON, IDAHO 83501
(208) 780-5422

SHEET **C12**



REVISION

DESCRIPTION

CHECKED

APPROVED

REV

DATE

BY

DATE

BY

DATE

BY

DATE

BY

DATE

ENGINEER

REGISTERED

PROFESSIONAL

DATE

4/23/15

SCALE

SHEET SIZE

D

CHECKED BY

MEE

DATE

03-19-15

SHEET

C13

DRAWING #

1432-C13

NORTHEAST CROSSING ADDITION

PHASE I/PROJECT I

15TH STREET X-SECTIONS

DK HOLDINGS, LLC

LEWISTON, IDAHO

HEDCO

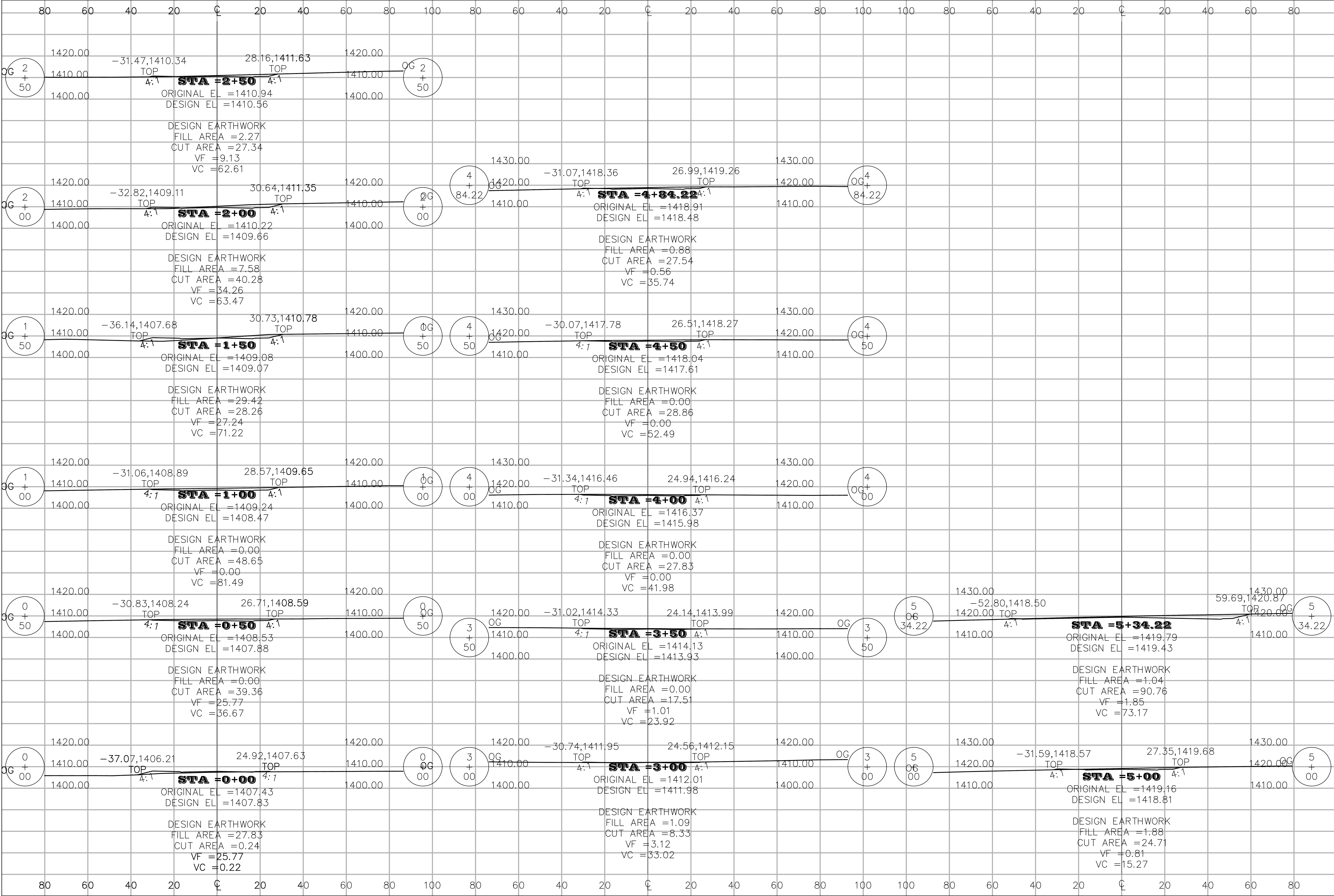
HAMMOND ENGINEERING & DEVELOPMENT CO.

528 BRYDEN AVENUE LEWISTON, IDAHO 83501

(208) 750-5422

SHEET

C13



REVISION		CHECKED	APPR.
DESCRIPTION			
REV	DATE		
LTR			

REGISTERED PROFESSIONAL ENGINEER - LAND SURVEYOR
#2102
STATE OF IDAHO
4/23/15

SCALE	SHEET SIZE	D
DRAWN BY	CHECKED BY	JSH
MEE		
DATE	JOB #	1432
03-19-15		
SHEET	C14	
DRAWING #	1432-C14	

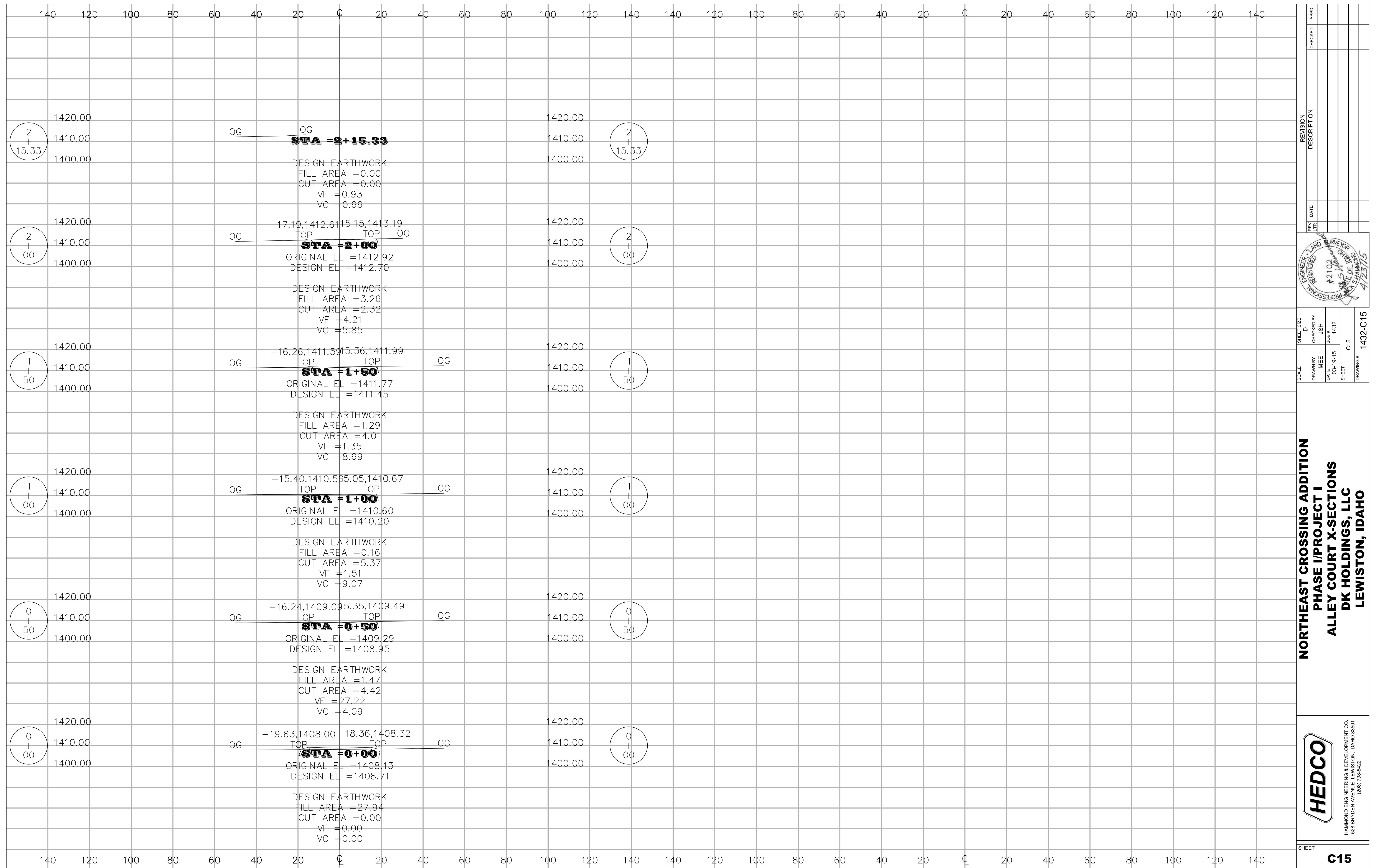
NORTHEAST CROSSING ADDITION
PHASE I/PROJECT I
WESTVIEW COURT X-SECTIONS
DK HOLDINGS, LLC
LEWISTON, IDAHO

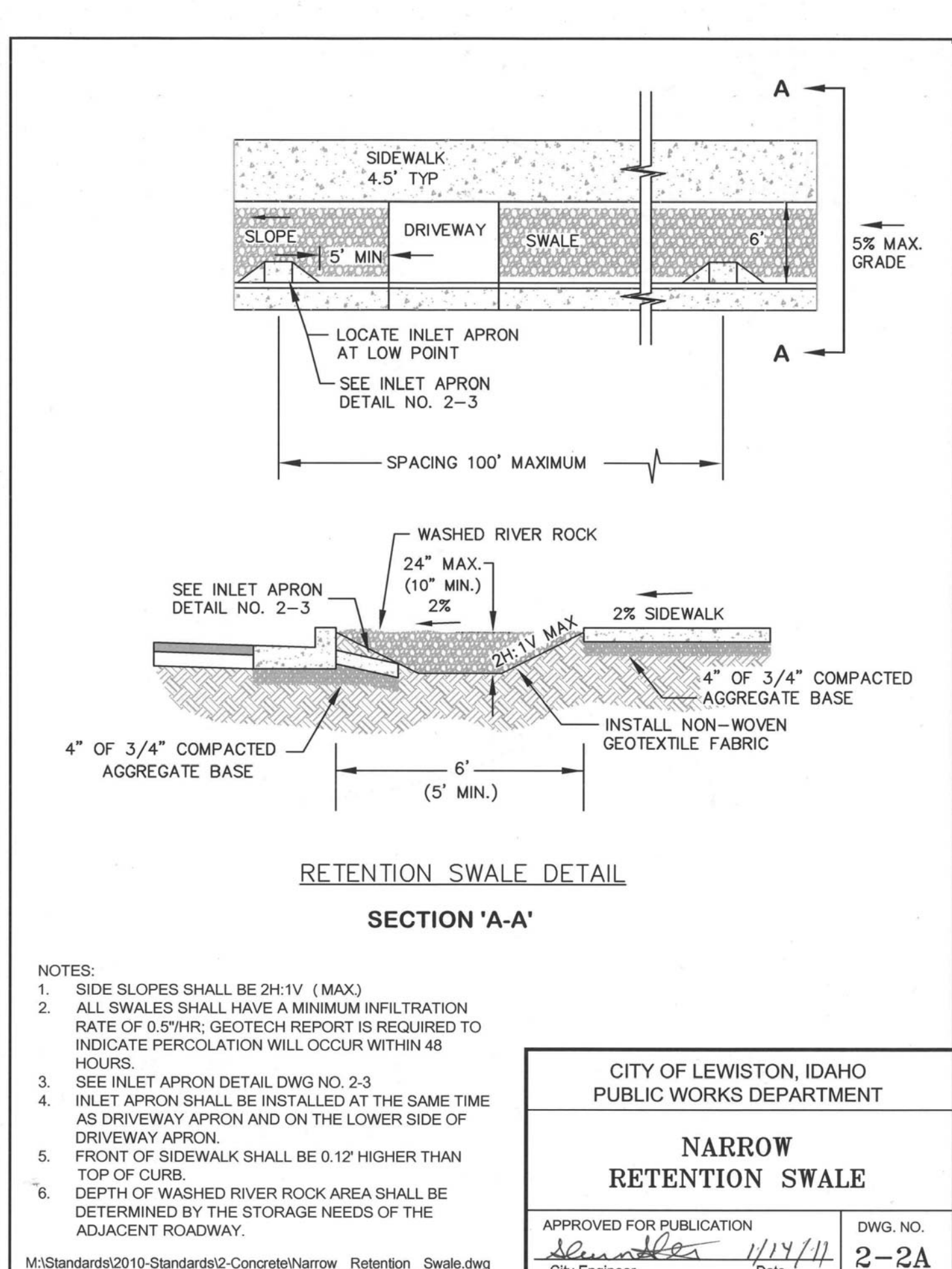
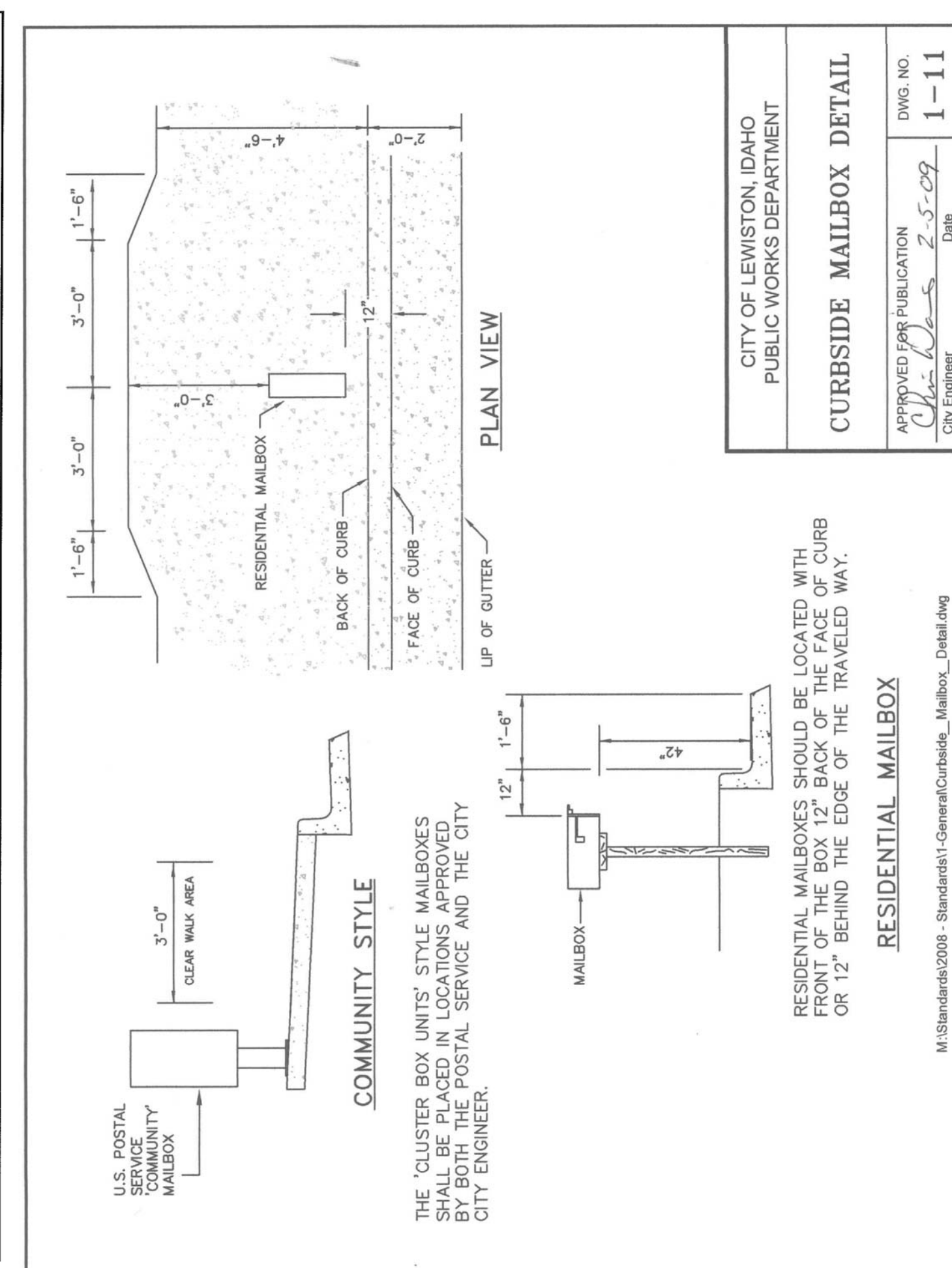
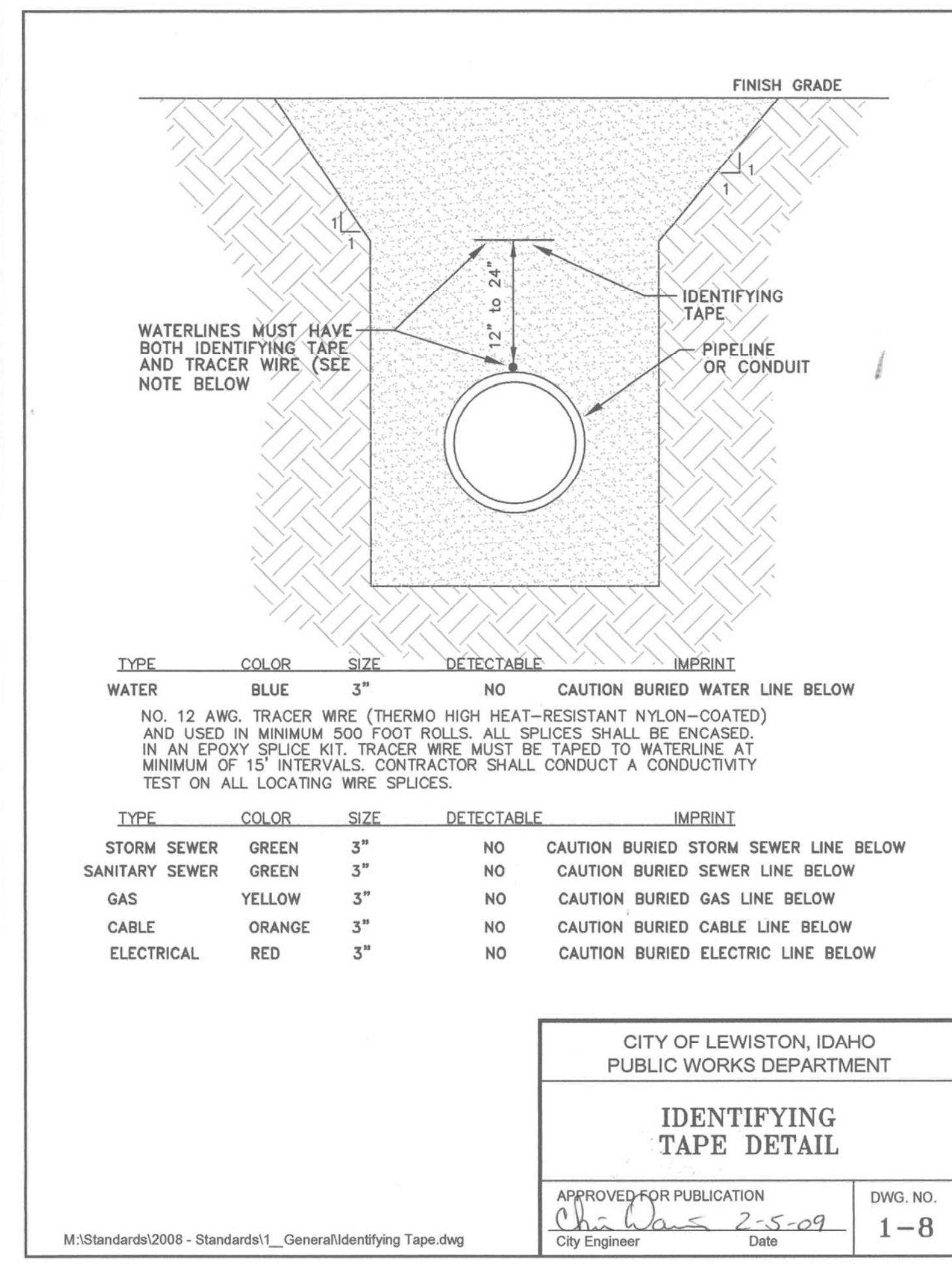
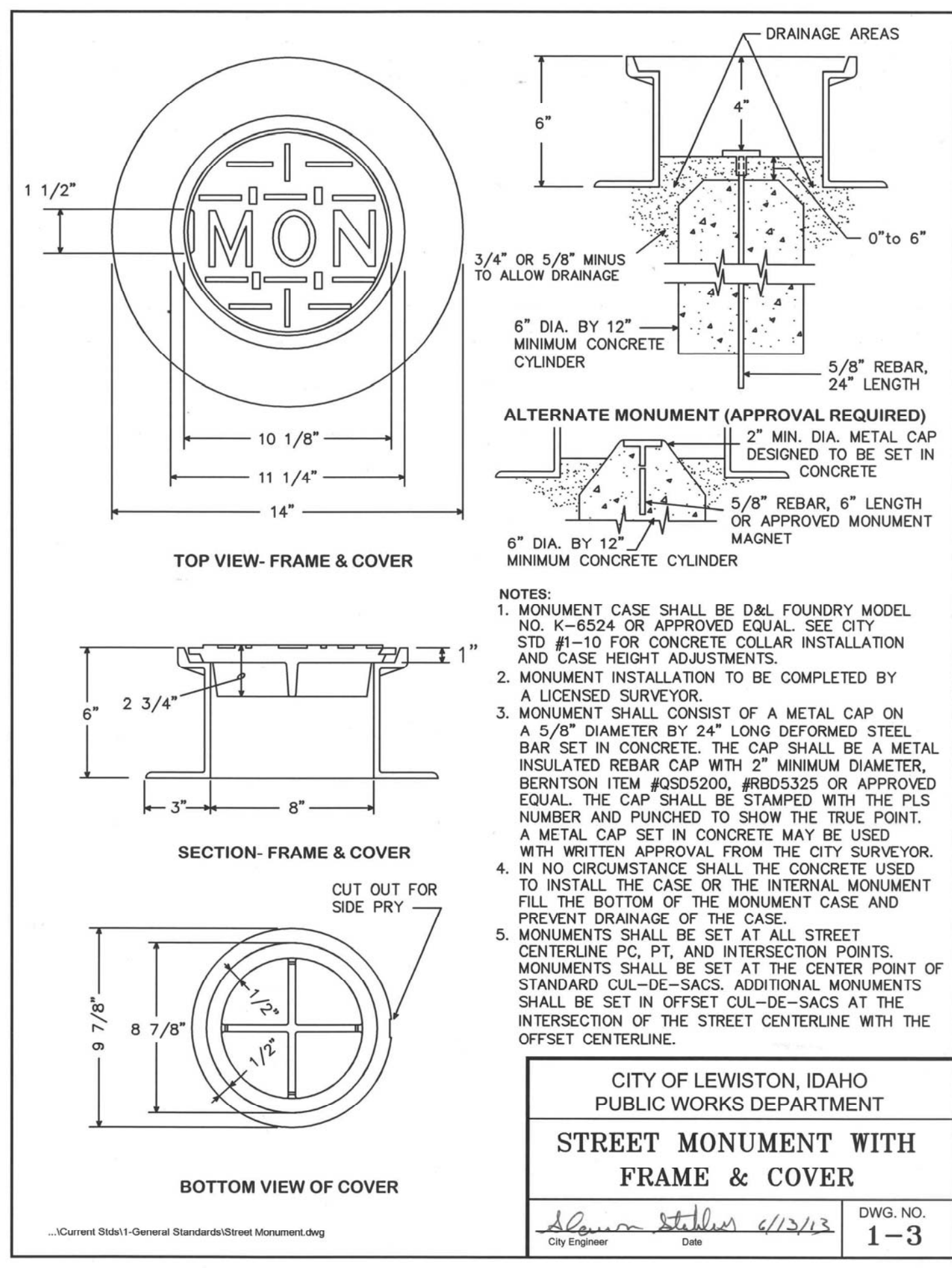
HEDCO

HAMMOND ENGINEERING & DEVELOPMENT CO.
528 BRYDEN AVENUE LEWISTON, IDAHO 83501
(208) 750-5422

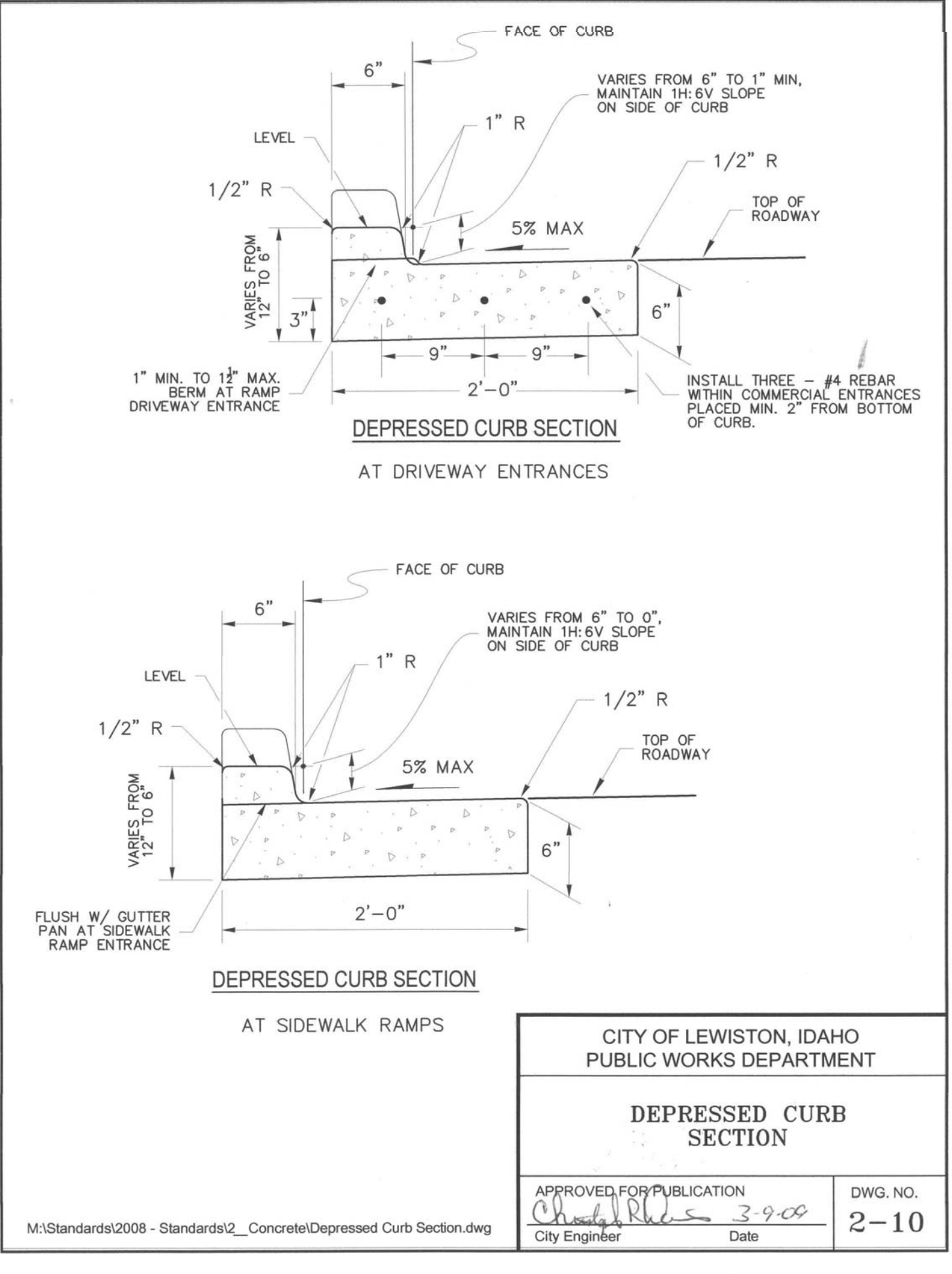
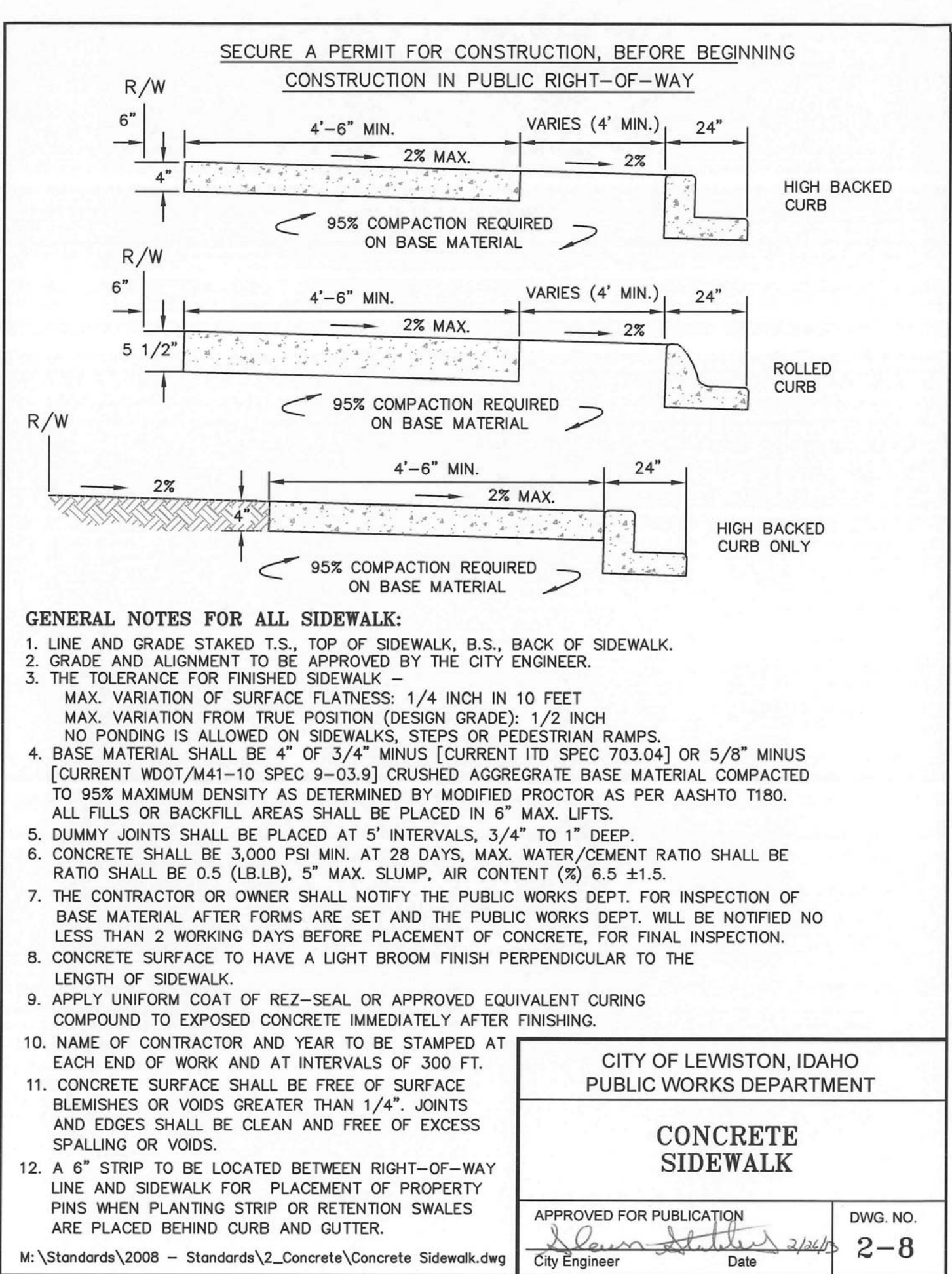
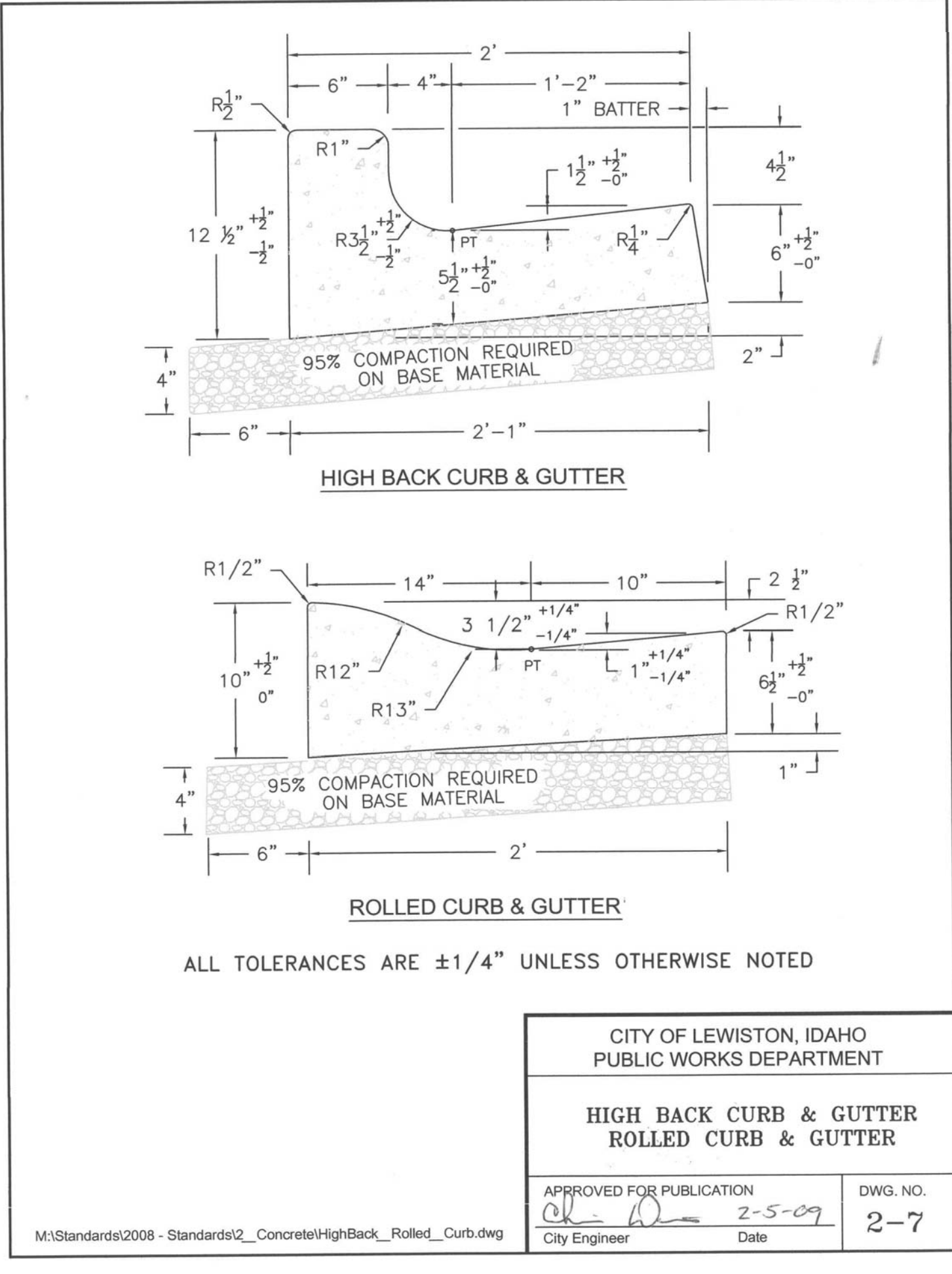
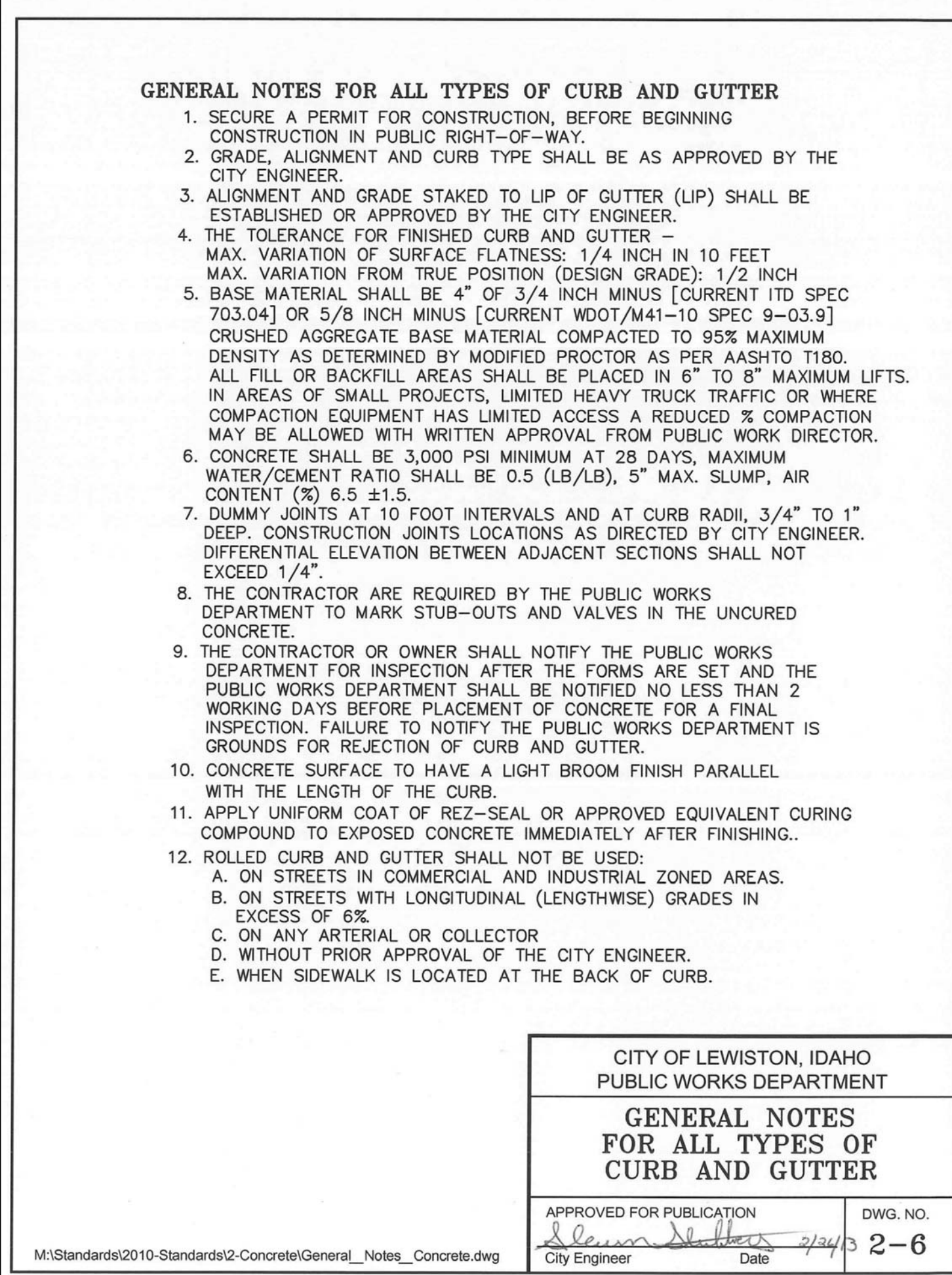
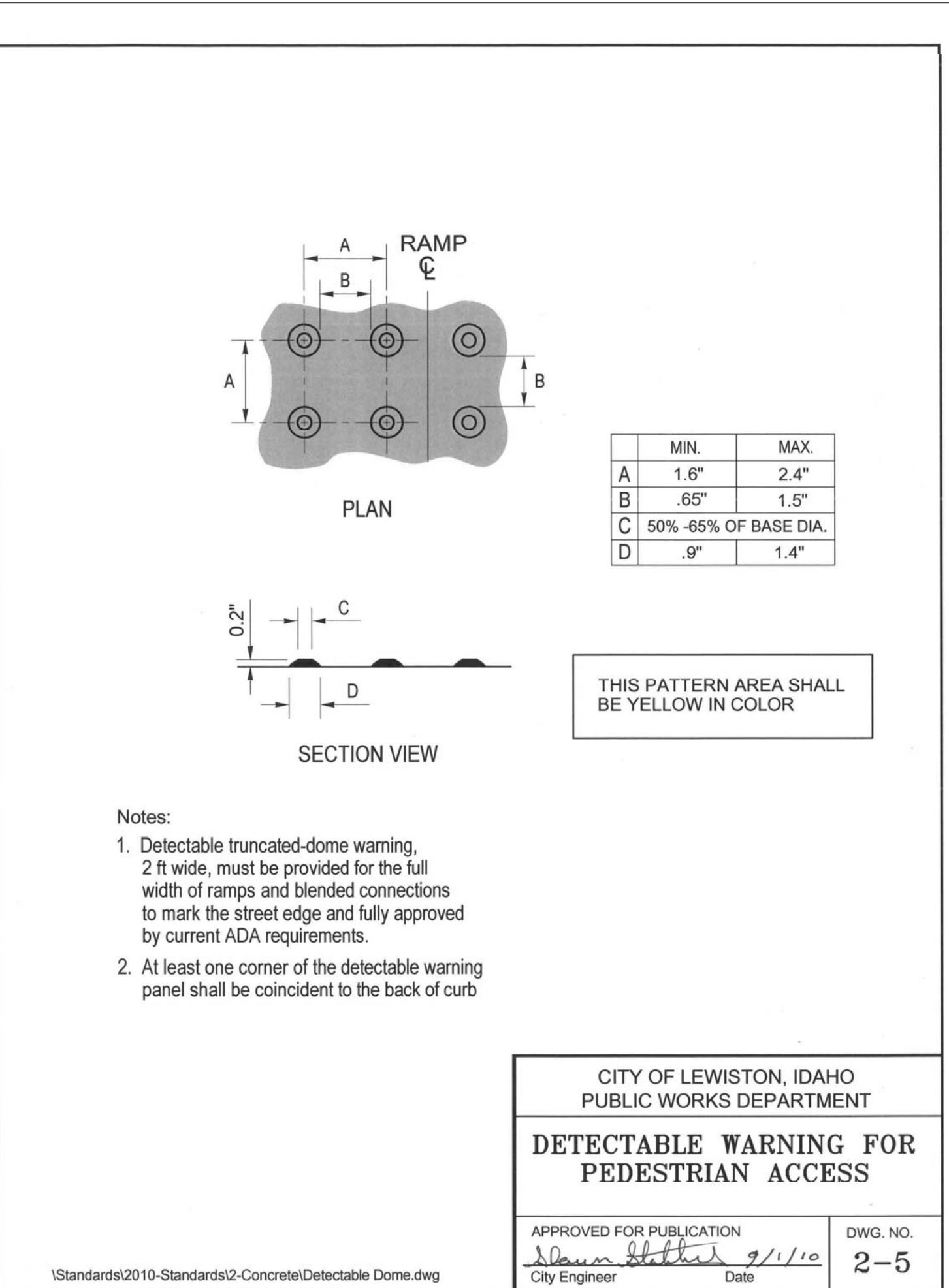
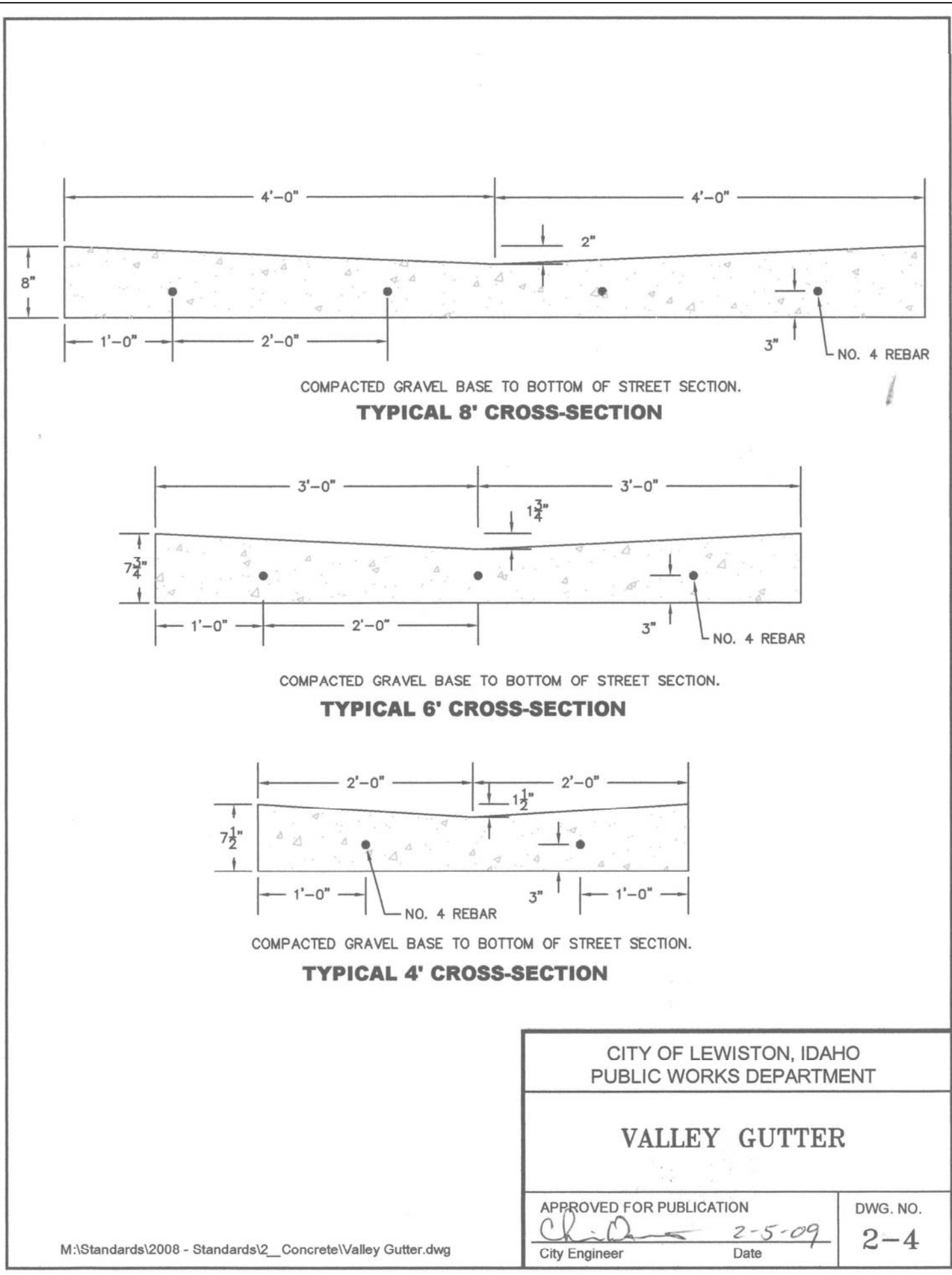
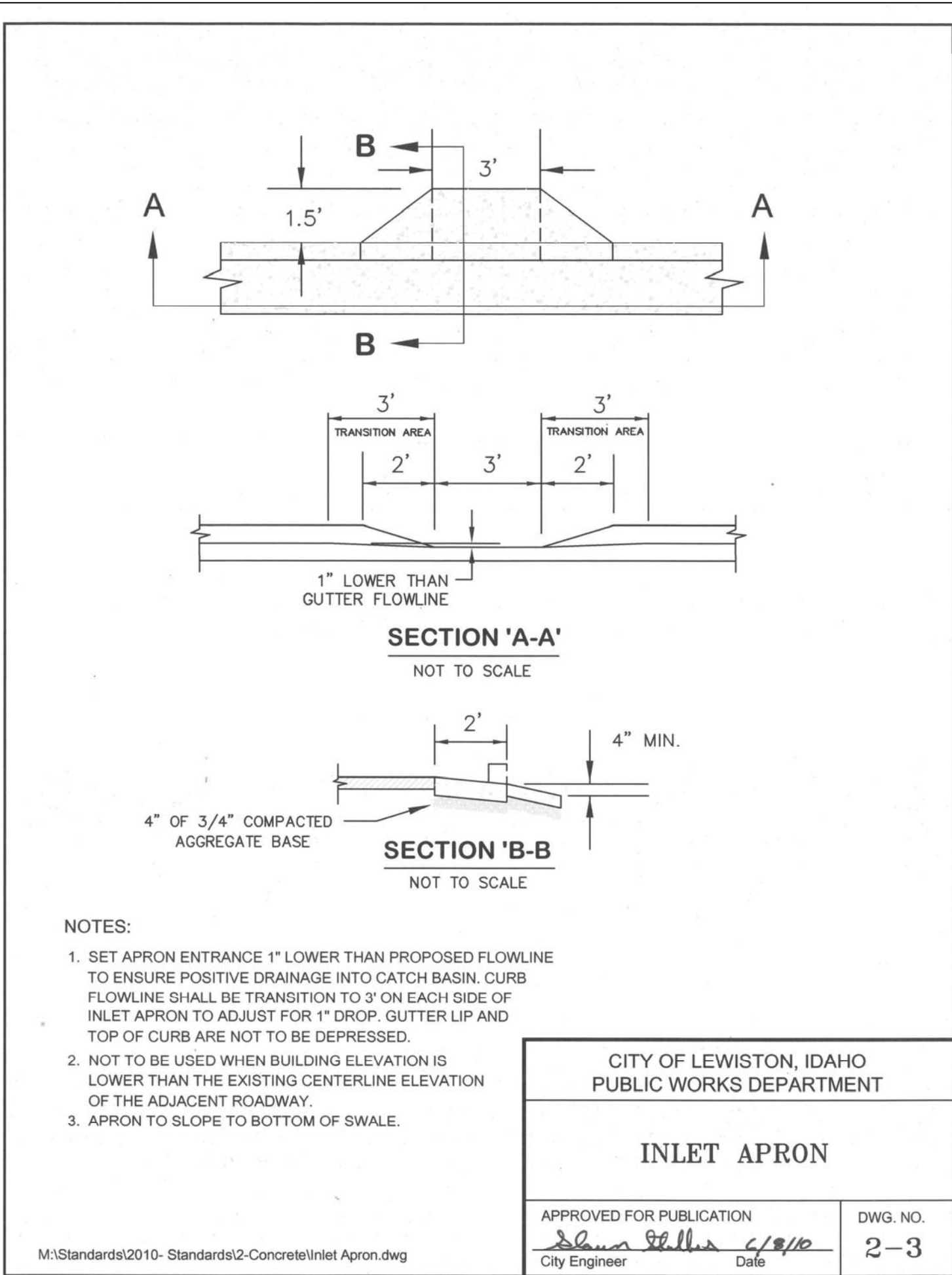
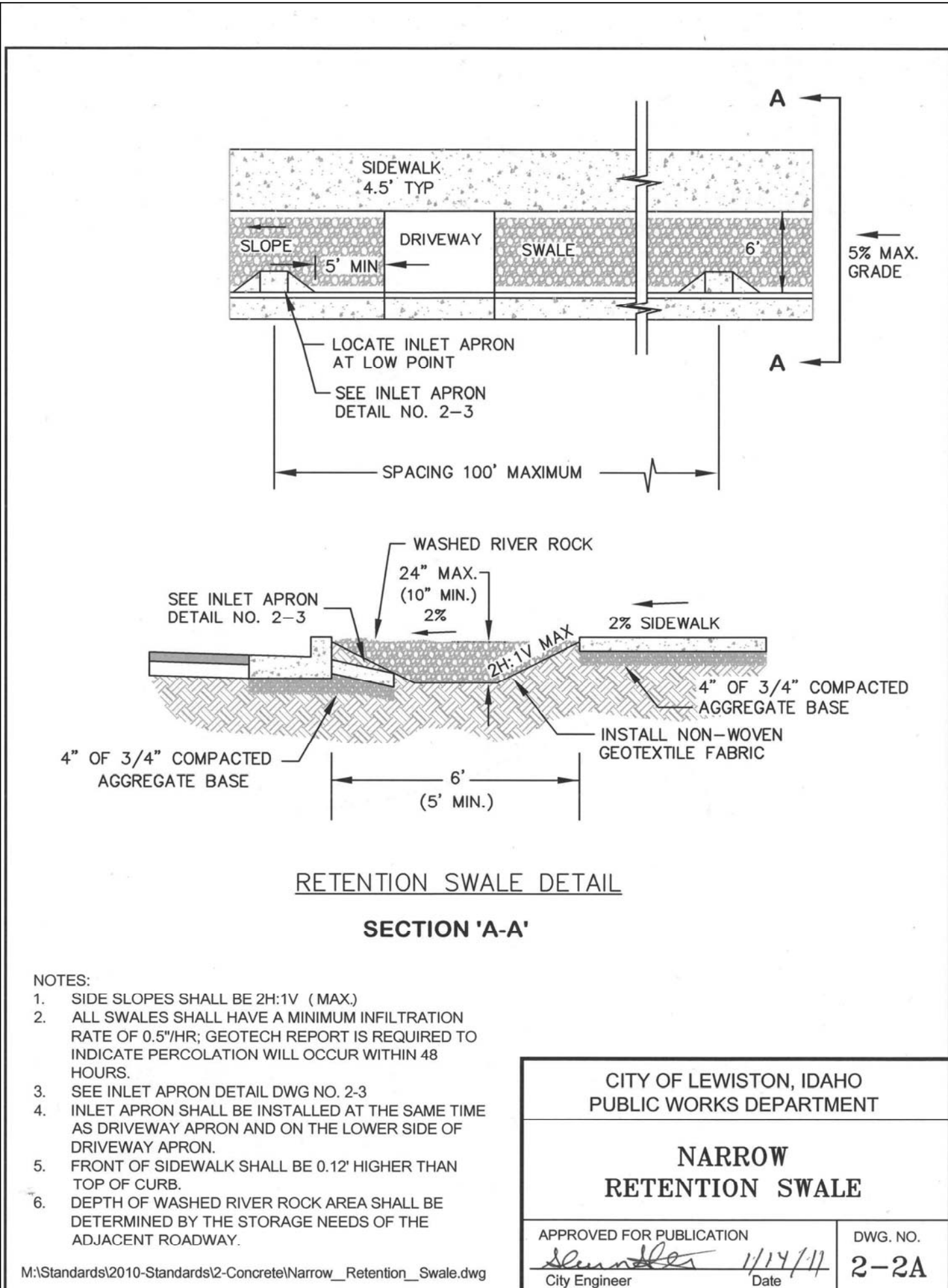
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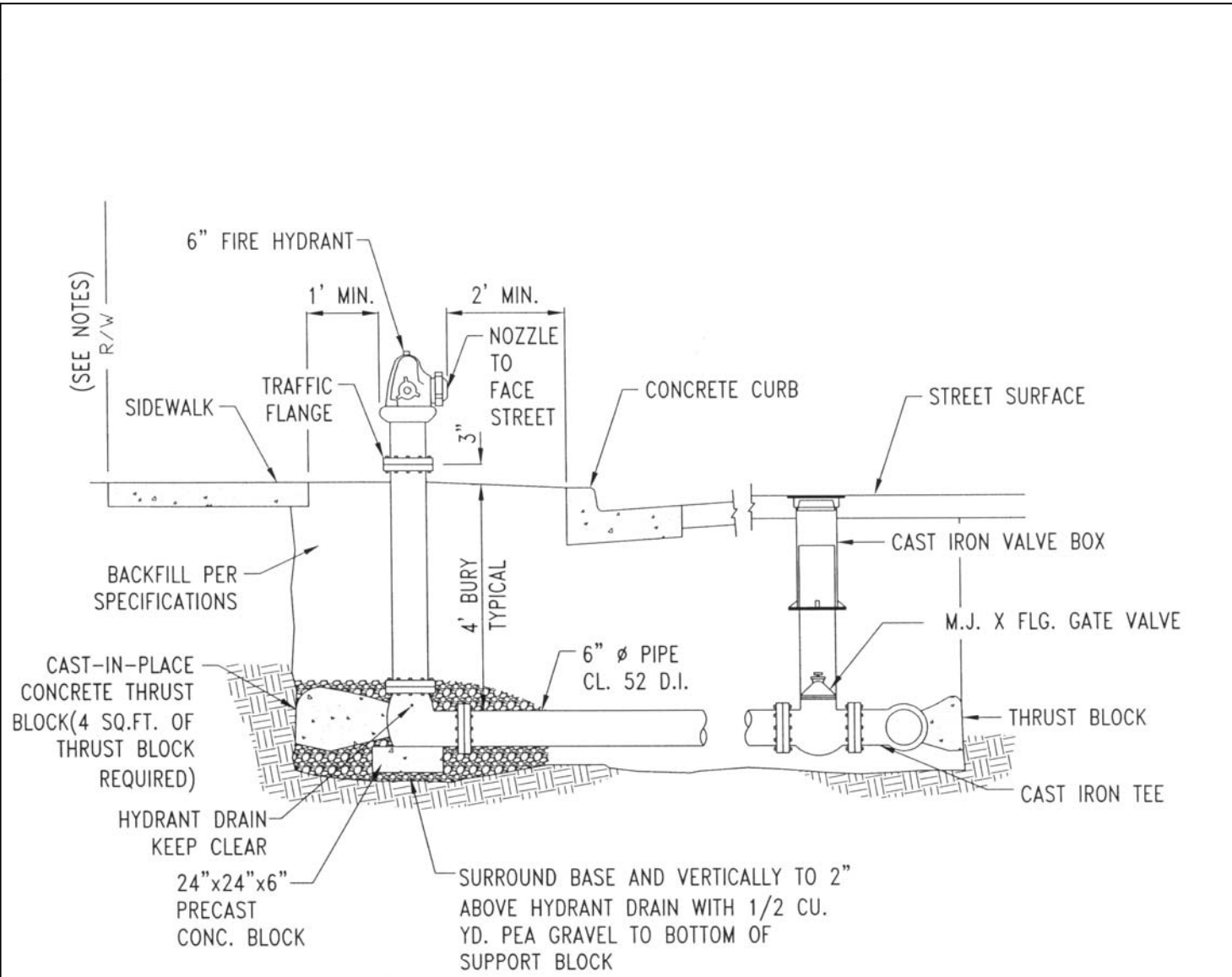
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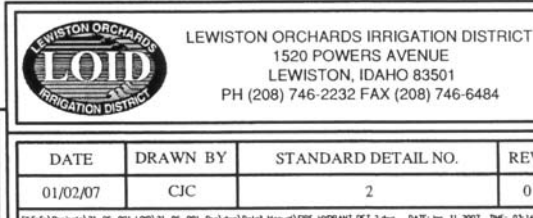
 HEDCO HAMMOND ENGINEERING & DEVELOPMENT CO. 528 BRYDEN AVENUE LEWISTON, IDAHO 83501 (208) 788-8422	NORTHEAST CROSSING ADDITION PHASE I/PROJECT I STANDARD DRAWINGS DK HOLDINGS, LLC LEWISTON, IDAHO				SCALE	SHEET SIZE				
	DRAWN BY	MEE	CHECKED BY	JOB #						
	DATE	03-19-15		1432						
	SHEET	C16								
	DRAWING #	1432-C16								
										
SHEET		C16		REVISION	DESCRIPTION	CHECKED	APPROD.			





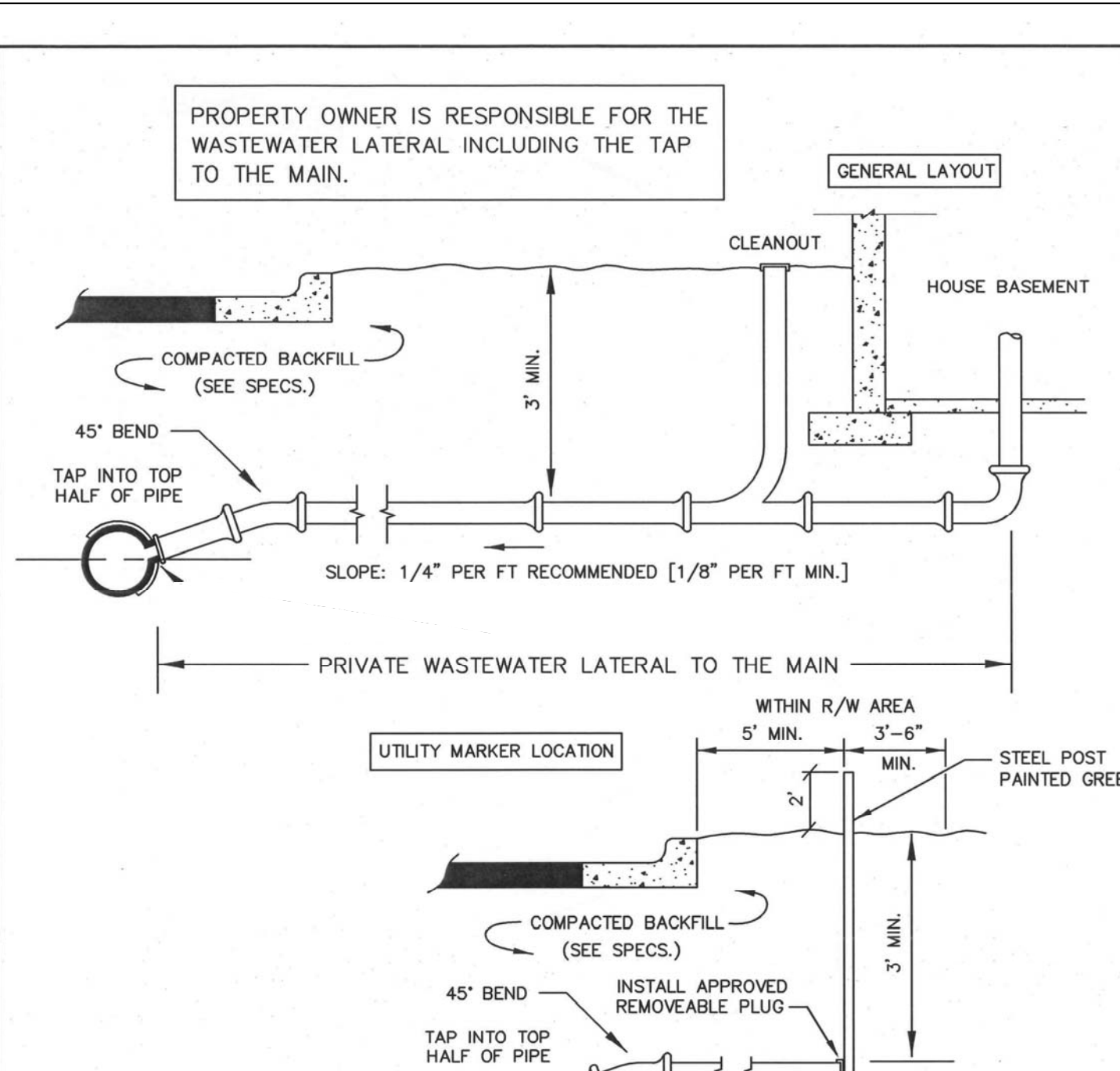
- NOTES:
- EACH HYDRANT IS TO BE RESTRAINED BY MEANS OF ROMAC GRIP RINGS CONNECTING THE HYDRANT TO THE VALVE OR MAINLINE TEE.
 - IN NO CASE SHALL HYDRANTS BE PLACED ON PRIVATE PROPERTY. THE ABOVE DIMENSIONS SHOULD BE CONSIDERED A GUIDE ONLY.

DRAFT
11/12/07



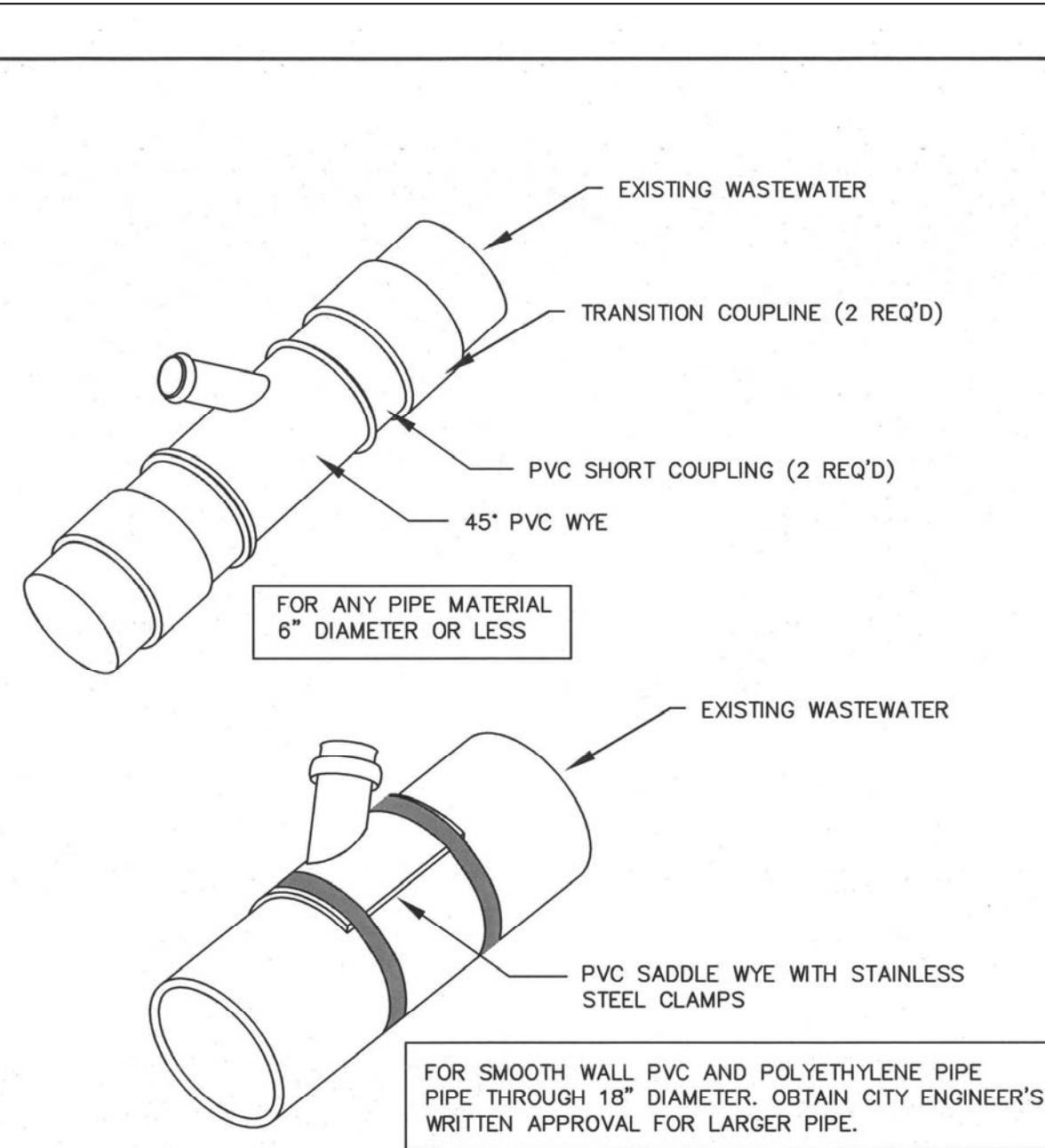
FIRE HYDRANT ASSEMBLY DETAILS

DATE	DRAWN BY	STANDARD DETAIL NO.	REV.
01/03/07	CIC	2	0



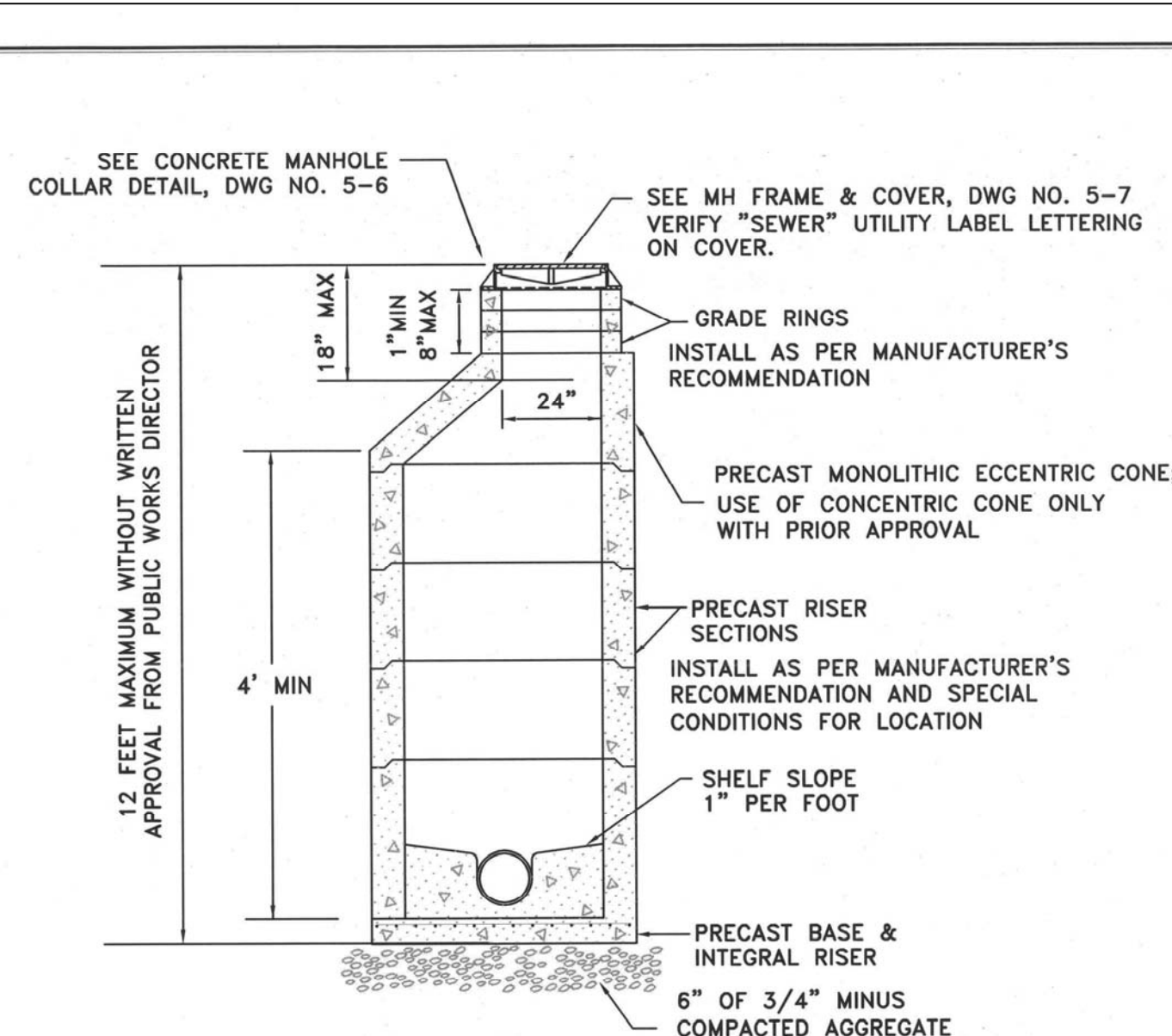
- NOTE:
- WASTEWATER SERVICE LATERALS SHALL BE CONNECTED TO SANITARY MAIN AT A POINT ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE BUT NOT DIRECTLY TO THE TOP OF THE MAIN.
 - ALL CONNECTIONS AND WASTEWATER LINES CONNECTING WITH THE PUBLIC SYSTEM SHALL BE WATERTIGHT AND NO LESS THAN 4" IN DIAMETER FOR ALL NEW CONNECTIONS EXCEPT FOR 2" DIAMETER PRESSURE CONNECTIONS TO GRAVITY MAINS.
 - FLOOR DRAINS SUBJECT TO BACK PRESSURE OR BASEMENT DRAINS LESS THAN 1' ABOVE THE NEAREST ADJACENT SEWER MANHOLE SHALL BE EQUIPPED WITH AN APPROVED BACKWATER VALVE (SEE CITY SEC. 36-43).

Standards\2010-Standards\5-Sanitary\SS Service Connection.dwg



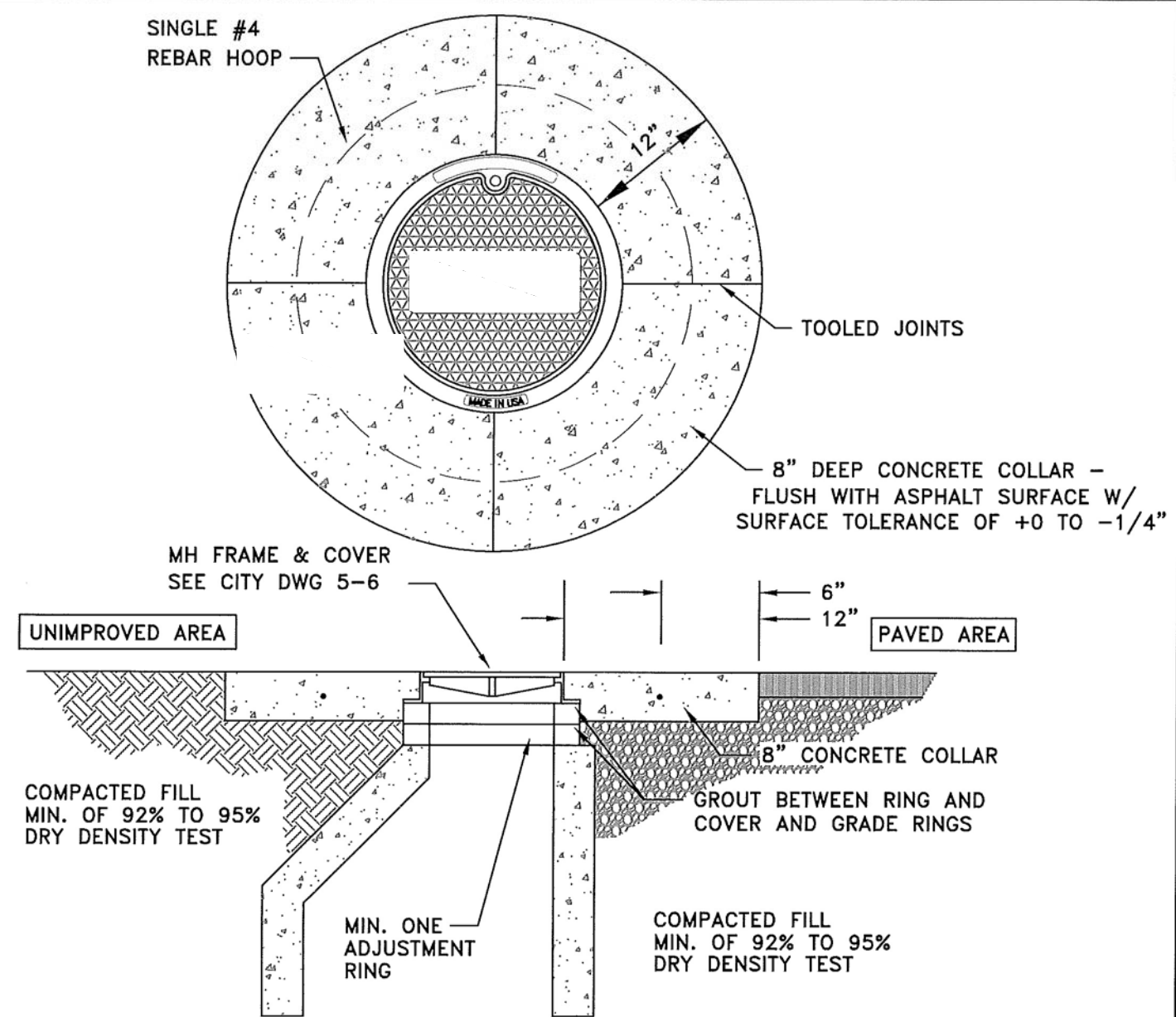
- NOTES:
- WASTEWATER SERVICE LATERALS SHALL BE CONNECTED TO SANITARY MAIN AT A POINT ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE BUT NOT DIRECTLY TO THE TOP OF THE MAIN.
 - FOR SANITARY MAIN PIPE OF 6" DIAMETER AND LARGER USE ROMAC STYLE 'CB' WASTEWATER SADDLE.

Standards\2010-Standards\5-Sanitary\Sewer\Wastewater Tap Options.



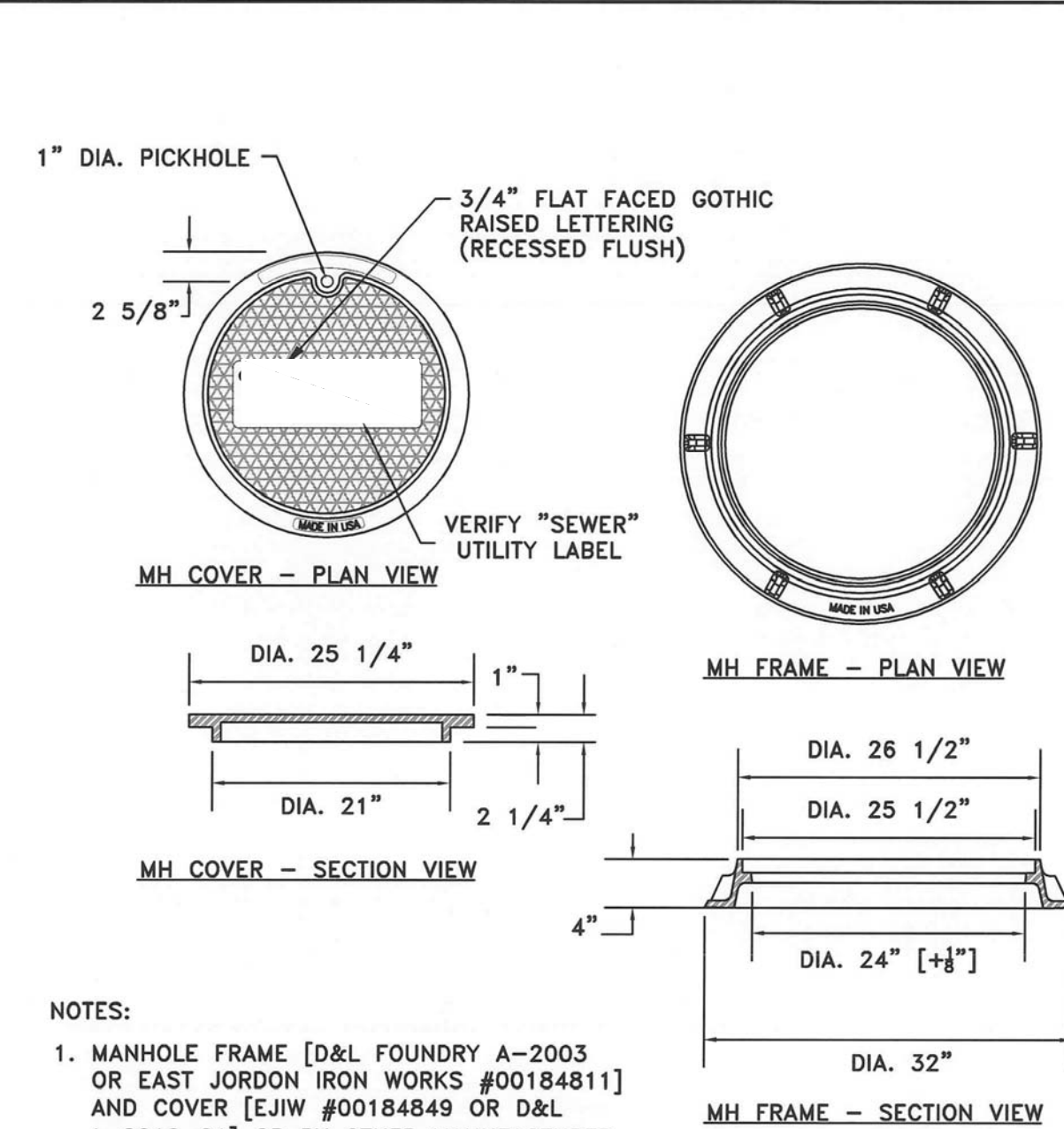
- NOTES:
- ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199. JOINTS SHALL BE RUBBER GASKET CONFORMING TO ASTM C443 AND SHALL BE GROUTED FROM THE INSIDE. LIFT HOLES SHALL BE GROUTED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
 - PRECAST BASES SHALL BE FURNISHED WITH CUTOFFS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
 - CONNECTION TO MANHOLE SHALL BE MADE USING RESILIENT CONNECTOR CONFORMING TO ASTM C-923 SUCH AS KOR-N-SEAL, A-LOK OR APPROVED EQUAL.
 - 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.
 - PRESSURE TESTING IS REQUIRED FOR ALL INSTALLATIONS.
 - SEE DWG NO 5-6 FOR CONCRETE MANHOLE COLLAR.

Standards\2010-Standards\6-Sanitary\Sewer\SS MH Type 1.dwg



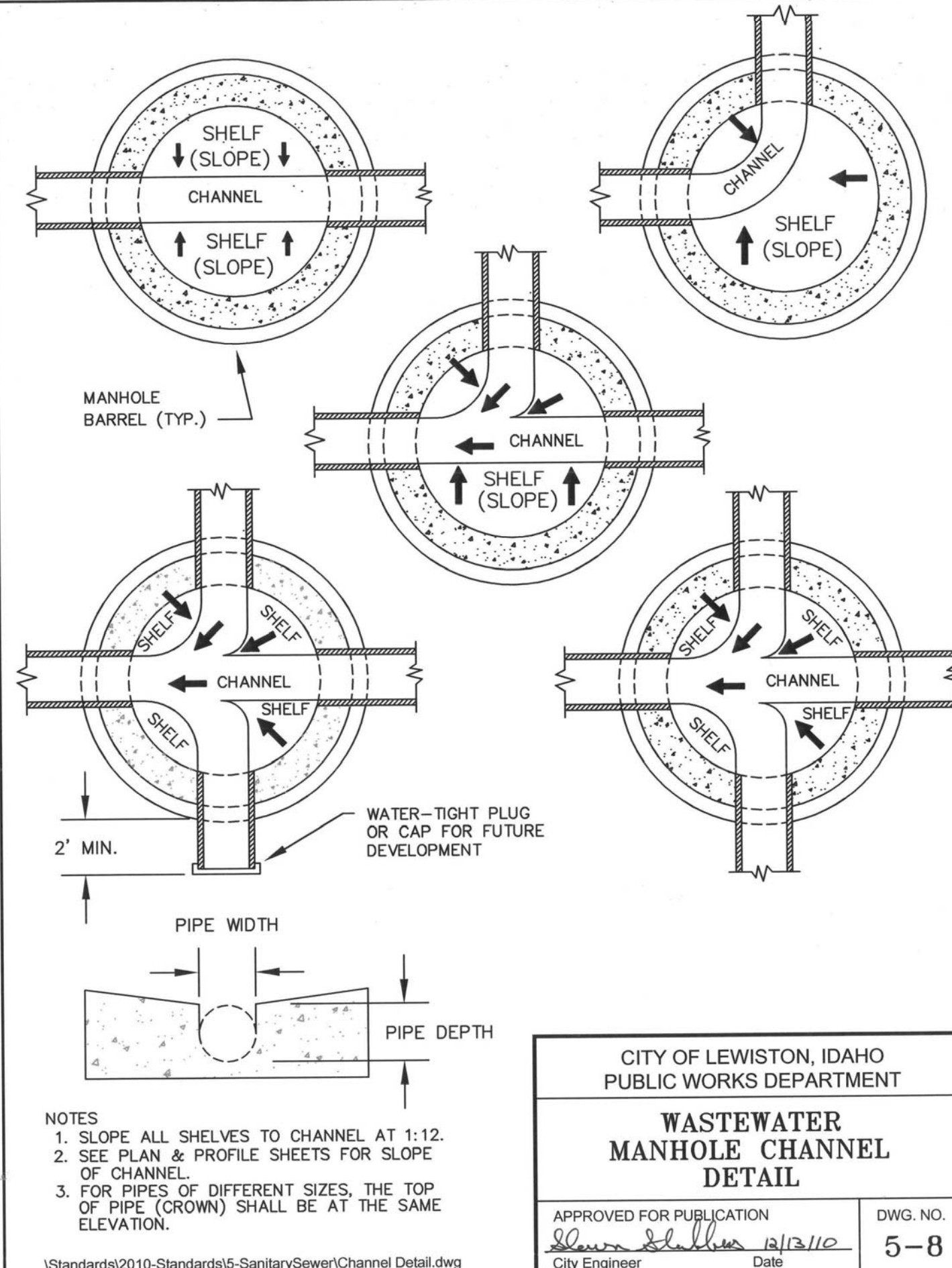
- NOTES:
- A CIRCULAR-SHAPED CONCRETE COLLAR IS REQUIRED ON ALL INSTALLATIONS; IN BOTH PAVED OR UNIMPROVED AREAS. INSTALL A 8" THICK CONCRETE COLLAR THAT SHALL BE FLUSH WITH THE ASPHALT SURFACE WITH A SURFACE TOLERANCE OF +0 TO -1/4".
 - CONCRETE SHALL BE 3,000 PSI MIN. AT 28 DAYS, WATER/CEMENT RATIO 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.
 - ALL EDGES WILL BE SEALED WITH CSSI OR APPROVED EQUAL. ALL TOP EDGES WILL BE TACKED AND SAND SEALED.
 - UTILITY FRAMES AND LIDS ARE PREFERRED OUTSIDE OF WHEEL PATH, WHERE POSSIBLE.

...5-Sanitary\Sewer\SS MH Collar.dwg



- NOTES:
- MANHOLE FRAME [D&L FOUNDRY A-2003 OR EAST JORDON IRON WORKS #00184811] AND COVER [EJW #00184849 OR D&L A-2010-01] OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL. VERIFY "SEWER" UTILITY LABEL LETTERING ON COVER.
 - COVER MATERIAL SPECIFICATION GRAY IRON (ASTM A48 CL35B)
 - IN AREAS OF HIGH STORMWATER INFILTRATION, LIDS SHALL HAVE GASKETED AND BOLTED.

Standards\2010-Standards\5-Sanitary\Sewer\MH Frame_Cover.d



CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER MANHOLE CHANNEL DETAIL

APPROVED FOR PUBLICATION
City Engineer
Date 12/13/10

DWG. NO.
5-8

GENERAL NOTES FOR STORMWATER SYSTEMS

- ALL WORK SHALL CONFORM TO CURRENT IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (SPWC) 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' DEFINES THE POLICIES, MINIMUM STANDARDS, REQUIREMENTS, AND PROCEDURES FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF PRIVATE STORMWATER SYSTEMS.
- ANY REPAIR, MAINTENANCE OR ALTERATION OF A PUBLIC STORM LINE OR DRAINAGE MUST BE APPROVED BY CITY ENGINEER.
- THE CONTRACTOR MUST SECURE APPROVAL FROM THE CITY ENGINEER PRIOR TO ADDING OR REMOVING FILL BACKFILL OVER PUBLIC STORM DRAIN MAINLINE.
- THE ENGINEERING INSPECTOR SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING WORK ON STORM DRAINS.
- ALL PUBLIC STORM DRAIN LINES SHALL BE VIDEOTAPE AND SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO PAVING. CITY SHALL HAVE FORTY-EIGHT (48) HOURS FOR REVIEW.
- ALL MANHOLES AND CATCH BASINS SHALL BE INSPECTED TWICE BY THE ENGINEERING INSPECTOR - ONCE PRIOR TO BACKFILL AND THEN PRIOR TO ACCEPTANCE OF IMPROVEMENTS. CALL (208) 791-8453 OR 746-1316 FOR INSPECTION SCHEDULING.
- CLOSED CONDUITS (OR PIPELINES) FOR STORMWATER CONVEYANCE IN THE CITY'S STORMWATER SYSTEM MUST BE A MINIMUM OF 12 INCH DIAMETER. THE PIPE MATERIAL MAY BE PLASTIC, STEEL, REINFORCED CONCRETE OR AN APPROVED MATERIAL, BUT MUST MEET CITY 605.02 SPECIFICATIONS IF PART OF THE CITY'S STORMWATER SYSTEM.
- 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.
- 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.
- STEEP SLOPE INSTALLATION SHALL BE INSTALLED AS PER MANUFACTURES PIPE SPECIFICATIONS.
- MANHOLE SHALL BE INSTALLED AT THE END OF EACH LINE, AT ALL CHANGE IN SIZE OR ALIGNMENT, AT DISTANCE NOT GREATER THAN 350 FEET OR AT CITY ENGINEER'S REQUIRED SPACING. ALL OTHER CHANGES IS SPACING MUST HAVE WRITTEN APPROVAL FROM PUBLIC WORKS DEPARTMENT.
- LOCATING WIRE SHALL BE INSTALLED WITH ALL PUBLIC STORM PIPE INSTALLATIONS. SEE CITY DWG 1-8, 'IDENTIFYING TAPE DETAIL'.
- CATCH BASINS AND MANHOLES SHALL BE ACCESSIBLE TO VEHICLES AND EQUIPMENT FOR MAINTENANCE AND BE WITHIN RIGHT-OF-WAY OF A MINIMUM 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.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER SYSTEM GENERAL NOTES

APPROVED FOR PUBLICATION
City Engineer
Date 12/13/10

DWG. NO.
6-1

**NORTHEAST CROSSING ADDITION
PHASE I/PROJECT I
STANDARD DRAWINGS
DK HOLDINGS, LLC
LEWISTON, IDAHO**



SHEET
C19



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 GROUDED FROM THE INSIDE. LIFT HOLES BE GROUDED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
2. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL BE WITH A WALL 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 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 BE MORE THAN 1/2" OF NON-SHRINK ALIGNMENT WITH THE MANHOLE BASE; PIPES SHALL BE FLUSH WITH INSIDE EDGE OF MANHOLE.
6. SEE DWG NO 6-4 FOR CONCRETE MANHOLE COLLAR.

\\Standards\\2010-Standards\\6-StormSewer\\MH Type 1.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

**STORMWATER
TYPE 1 MANHOLE**

APPROVED FOR PUBLICATION <u>Glenn Stuber</u> 12/13/10 City Engineer Date	DWG. NO. 6-2
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1. MANHOLE FRAME [EAST JORDON IRON WORKS PRODUCT #00184811 OR D&L FOUNDRY A-2003] AND COVER [EJIW #00184849 OR D&L A-2010-01] OR OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.; VERIFY "STORM" UTILITY LABEL LETTERING ON COVER.
2. COVER MATERIAL SPECIFICATION GRAY IRON (ASTM A48 CL35B)

\\Standards\\2010-Standards\\6-StormSewer\\MH Frame__Cover.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER MANHOLE FRAME AND COVER

APPROVED FOR PUBLICATION <u>Glenn Stubbins</u> 12/13/10 City Engineer Date	DWG. NO. 6-5
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GENERAL NOTES FOR CATCH BASINS

1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199.
2. ALL CURB INLET STRUCTURES SHALL HAVE A MINIMUM 12" SUMP WITH THREE 1 1/2" DIA. WEEP HOLES IN BASE AND MINIMUM OF 12" OF COMPACTED 5/8" MINUS UNDER BASE; CRUSHED AGGREGATE MATERIAL SHALL BE PLACED TO 1" DEEP.
3. A CATCH BASIN SHALL BE INSTALLED UPHILL TO EACH INTERSECTION CORNER RADIUS AND SPACED NO MORE THAN 400 FEET ALONG THE LENGTH OF THE STREET OR AT CITY ENGINEER'S REQUIRED SPACING. ADJUSTMENTS TO SPACING SHALL REQUIRE CALCULATIONS TO VERIFY THE CHANGES HAVE MET CITY SPECIFICATIONS.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS FOR SLOPE KNOTS SHALL BE 12" DIA. WITH A MINIMUM 2" MINIMUM.
5. ALL PIPES SHALL BE FLUSH WITH BASIN WALL AND SHALL BE MORTARED ALL AROUND.
6. USE CITY STD DWG NO. 6-7 FOR CATCH BASIN FRAME AND GRATE.
7. REDUCTION SLAB, RISERS, AND FRAME & GRATE SHALL NOT BE MORE THAN ONE INCH OUT OF VERTICAL ALIGNMENT WITH CATCH BASIN BASE.
8. MAXIMUM DEPTH FROM FINISHED GRADE TO PIPE INLET IS 5 FEET.
9. USE A MINIMUM OF 1/2" NON-SHRINK GROUT BETWEEN RISERS, BASE, AND FRAME.
10. CURB INLET TO BE PLACED WITHIN A TOLERANCE OF 1/2" HORIZONTAL ALIGNMENT FROM CURB LINE.
11. SLOPE 1% OR GREATER THAN PROPOSED FLOWLINE TO ENSURE POSITIVE DRAINAGE INTO CATCH BASIN. CURB FLOWLINE MUST BE TRANSITION TO 3" ON EACH SIDE OF THE CATCH BASIN TO ADJUST FOR 1" DROP. GUTTER LIP AND TOP OF CURB ARE NOT TO BE DEPRESSED.

M:\Standards\2010-Standards\6-StormSewer\CB General-Notes.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER
GENERAL CATCH BASIN
NOTES

APPROVED FOR PUBLICATION <u>Shawn Hubbs</u> 12/13/10 City Engineer Date	DWG. NO. 6-6
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1. CURB INLET CATCH BASIN FRAME [D & L SUPPLY - PRODUCT 1-4434], GRATE AND HOOD OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.
2. COVER MATERIAL SPECIFICATION GRAY IRON (ASTM A48 CL35B)
3. SEE CITY DWG 6-6 'GENERAL NOTES FOR CATCH BASINS'.

Standards\2010-Standards\6-StormSewer\CB Frame_Grate.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER
CATCH BASIN FRAME
AND GRATE

APPROVED FOR PUBLICATION <i>Steven Stiller</i> 11/21/13 City Engineer Date	DWG. NO. 6-7
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1. TYPICAL CATCH BASIN [WILBERT PRECAST PRODUCT #1827] AND RISERS [WILBERT PRECAST PRODUCT #1830 (FOR 12") OR #1831-2,4,6 (FOR 2", 4" OR 6")] OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.
2. SEE CITY DWG 6-6 'GENERAL NOTES FOR CATCH BASINS'.

M:\Standards\2010-Standards\6-StormSewer\CB Type_1.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER TYPE 1 CATCH BASIN

APPROVED FOR PUBLICATION <u>Steven Huber</u> 12/13/10 City Engineer Date	DWG. NO. 6-8
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**NORTHEAST CROSSING ADDITION
PHASE I/PROJECT I
STANDARD DRAWINGS
DK HOLDINGS, LLC
LEWISTON, IDAHO**

HAMMOND ENGINEERING & DEVELOPMENT CO.
3528 BRYDEN AVENUE LEWISTON, IDAHO 83501
(208) 798-5422

SHEET

C20