10-12-20
REV 10-06-20

CARLTON HANGAR ADDITION (8.99 ac.)

THE SOUTHEAST QUARTER, OF THE SOUTHEAST QUARTER, OF THE SOUTHWEST QUARTER, OF SECTION 7, TOWNSHIP 35 NORTH, RANGE 5 WEST, BOISE MERIDIAN. CITY OF LEWISTON, NEZ PERCE COUNTY, IDAHO

CONTACT INFORMATION

PROJECT ADDRESS:	WEST OF 4TH STREET WARNER AVE. TO PARK DR.
OWNER:	STEVE CARLTON CONSTRUCTION CONTACT: STEVE CARLTON 1103 BRYDEN AVENUE LEWISTON, ID 83501 PHONE: (208) 743-3257 email: steve@carltonconstruction.com
CIVIL ENGINEER: INSPECTOR:	C. RYAN FISKE, P.E. ANACLINE ENGINEERING 4045 EAGLE CT. LEWISTON, ID 83501 PHONE: (208) 791-8055 email: anacline @aol.com

STANDARDS

1) CITY INSPECTION CHECKLIST
2) IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (LATEST ED.)
3) AMERICAN WATER WORKS ASSOCIATION STANDARDS
4) IDAPA 58 & 10 STATE STANDARDS
5) CITY, COUNTY & STATE CODES
6) INTERNATIONAL BUILDING CODE 2003
7) INTERNATIONAL FIRE CODE 2003
8) CITY OF LEWISTON STANDARD DRAWINGS & SPECIFICATIONS
9) AMERICANS WITH DISABILITIES ACT
10) NATIONAL ELECTRIC COUNCIL & LOCAL ELECTRIC CODES
11) L.O.I.D. SUPPLEMENTAL TECHNICAL SPECIFICATIONS 1-18-18

UTILITY CONTACTS

	ENTITY	CONTACT	PHONE
POWER	AVISTA	COLBY WITTERS	509.780.1475
WATER	L.O.I.D.	CHRIS WOODY	208.790.2287
SEWER	C.O.S.D.	MICHELLE GRUELL	208.746.9689
PHONE	CENTURY LINK	CODY HOLLENBACK	208.798.8380
CABLE	SPARKLIGHT	RICK RAMSEY	208.746.3336
SEWER	L.O.S.D.	URBAN WESSELS	208.791.9346
FIRE	CITY OF LEW.	LINDA STEPUTAT	208.743.3554
HEALTH	NORTH CENTRAL	ED MARUGG	208.799.3100
CITY	ENGINEER	PUBLIC WORKS	208.746.1316

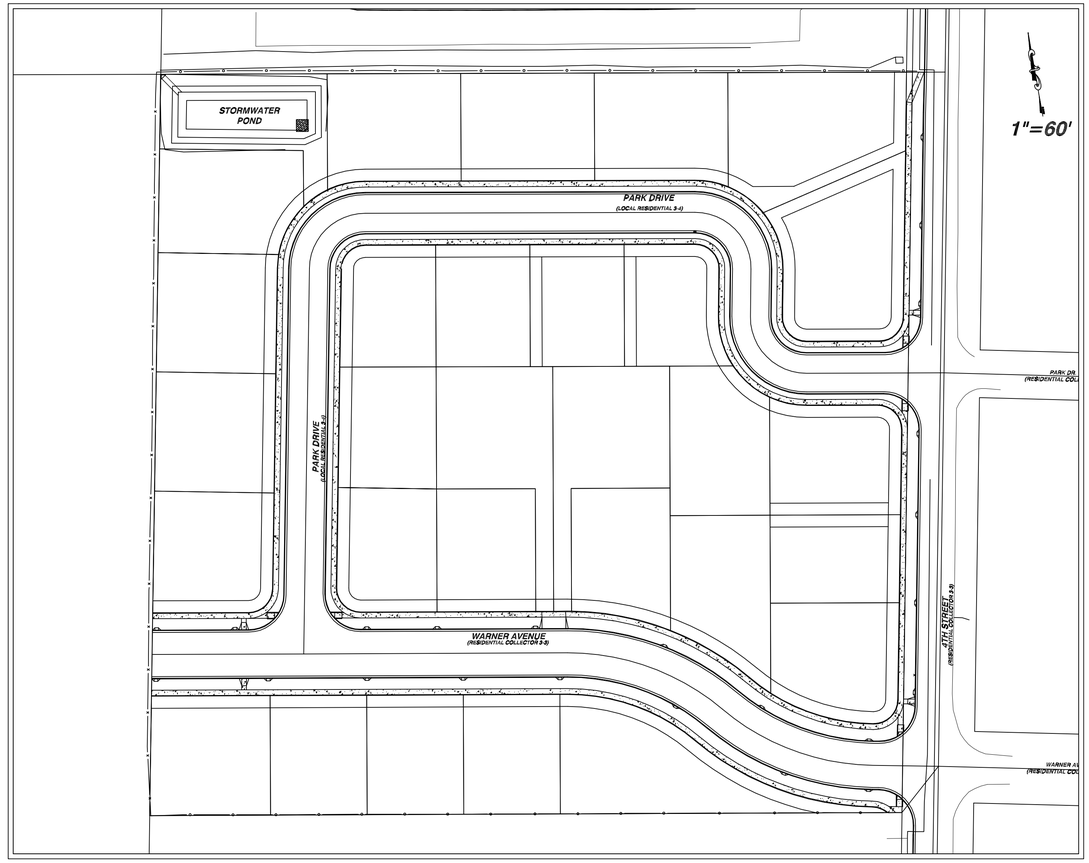
INSPECTIONS & NOTIFICATIONS

NOTE: THE ENGINEER OF RECORD IS REQUIRED TO INSPECT THE INFRASTRUCTURE CONSTRUCTION TO INSURE CONFORMANCE TO PLAN REQUIREMENTS. THE CONTRACTOR WILL PROVIDE THE ENGINEER EVERY FRIDAY, A SCHEDULE OF THE WORK TO BE PERFORMED THE FOLLOWING WEEK. THE CONTRACTOR SHALL PROVIDE ACCURATE REDLINE DRAWINGS FOR THE ENGINEER TO PROVIDE "AS-BUILT" PLANS AFTER THE CONSTRUCTION IS COMPLETE.

NOTIFICATION SIGN: A SIGN SHALL BE ERECTED UPON APPROVAL OF THE BUILDING PERMIT FOR THE PROJECT. AT A MINIMUM THE SIGN SHALL HAVE THE FOLLOWING:
1) THE SIGN SHALL BE AT LEAST 15 FEET SQUARE IN SIZE.
2) THE SIGN SHALL HAVE A DESCRIPTION OF THE APPROVED PROJECT.
3) THE SIGN SHALL CONTAIN THE PHONE NUMBER FOR THE PUBLIC TO OBTAIN ADDITIONAL INFORMATION.

CONTRACTOR SHALL CALL 1-800-342-1585 & HAVE ALL UNDERGROUND UTILITIES LOCATED AT LEAST TWO WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION.

SITE PLAN



SHEET INDEX

4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 750-1082
(208) 791-8055

NACLINE
ENGINEERING & DRAFTING
"an affordable alternative"

LEGEND

	PROPERTY BOUNDARY OR EASEMENT CENTERLINE EASEMENT LINE
	BREAK LINE
	FLOW LINE
923	EXISTING GRADE CONTOUR
923	FINISH GRADE CONTOUR
R/W	RIGHTOF WAY
DESCRIPTOR	EXISTING UTILITY
OHP	OVERHEAD POWER
G	UNDERGROUND GAS
W	DOMESTIC WATER
I	IRRIGATION LINE
C	CONDUIT FOR FRANCHISE UTILITY
S	SANITARY SEWER MAIN OR SERVICE
ST	STORM SEWER
	PAVEMENT SECTION
	CONCRETE FLATWORK
	CONTROL POINT
	MONUMENT
	SIGN
	UTILITY BOX
	UTILITY POLE & ANCHOR

EXISTING		PROPERTY
WV	GATE VALVE	WV
	FIRE HYDRANT	
S	SANITARY MANHOLE	S
ST	STORM MANHOLE	ST
	CATCH BASIN	
	SEWER SERVICE	O
	WATER METER ASSEMBLY	S
	IRRIGATION SERVICE	O
		W
		O
		I

C4 EROSION CONTROL LEGEND

CONSTRUCTION ENTRANCE — CE
A stone pad, located at points of vehicular ingress and egress on a construction site, to reduce the soil transportation onto public roads and other paved areas. Location may vary from plan location.

DUST CONTROL — DC
Reducing surface and air movement of dust during land disturbance, demolition or construction activities in areas subject to dust problems in order to prevent soil loss and reduce the presence of potentially harmful airborne substance.

STREET SWEEP — SS
Where construction vehicle access routes intersect public streets, provisions shall be made to minimize the transportation of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a public street surface, the road shall be cleaned thoroughly. Periodic street sweeping may be required. Street washing shall be allowed only after sediment is first removed by sweeping.

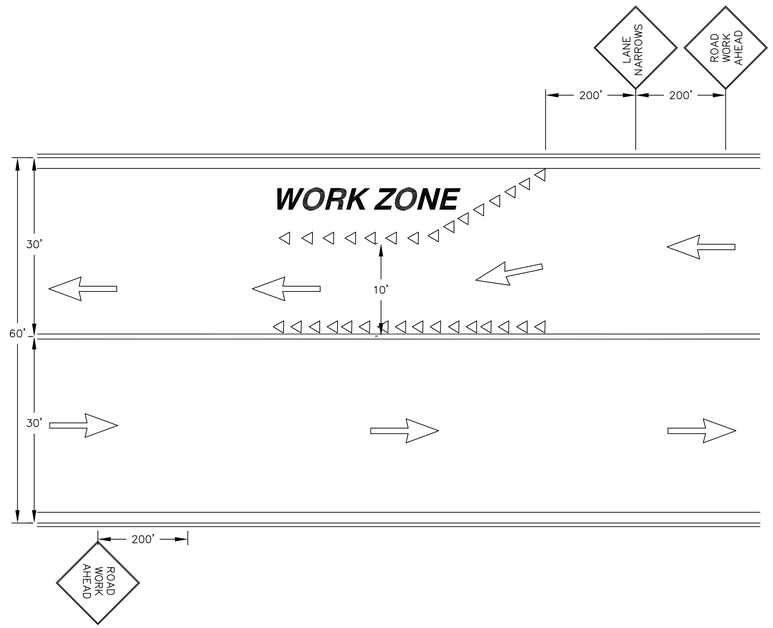
INLET PROTECTION — IP
Place non woven geotextile fabric between frame and grate so as to prevent sediment laden storm water from entering the storm sewer.

VEGETATIVE BUFFER — VB
Vegetative areas that are designated to be undisturbed to reduces storm water velocity and potential erosion.

CONCRETE WASHOUT — CW
A designated area for concrete trucks to wash out their vehicles. area shall be a pool like depression 2 feet deep and 10 foot in diameter and lined with a non woven geotextile fabric. The concrete wash out shall be removed at the end of construction.

TRAFFIC CONTROL PLAN FOR SHOULDER WORK WITH MINOR ENCROACHMENT

NOT TO SCALE



NOTE: CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN TO CITY OF LEWISTON FOR FIRE LINE INSTALLATION AND CROSSING TO NORTH SIDE OF MAIN STREET.

UTILITY NOTES

1) THE EXISTING UTILITY LOCATIONS SHOW WHERE DETERMINED BY COLLECTING EXISTING UTILITY DRAWINGS FROM VARIOUS UTILITY ENTITIES, CALLING IN A UTILITY LOCATE AND THEN MAPPING THE UTILITY LOCATES. THEREFOR, ANACLINE ENGINEERING PLLC DOES NOT WARRANTY THE ACCURACY OF THE INFORMATION PROVIDED AND PERFORMED BY OTHERS.

CONDUIT SPECIFICATIONS

1) ALL CONDUIT IS SCHEDULE 40 GRAY PVC

2) CONDUIT BENDS AND SWEEPS ARE 24"

3) MINIMUM SEPARATION DISTANCE TO WATER, STORM, SANITARY UTILITIES IS 5' FROM EDGE OF PIPE.

4) CONDUITS MAY BE PUT IN A COMMON TRENCH. CONDUIT ROUTES ARE DRAWN FOR CLARITY. CONTRACTOR SHALL ADJUST COMMON TRENCH LOCATION TO AVOID CONFLICTS WITH OTHER UTILITIES AND TO MAINTAIN MINIMUM SEPARATION REQUIREMENTS.

GRADING NOTES

1) PREPARATION OF GROUND: THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NON-COMPLYING FILL, TOPSOIL AND OTHER UNSUITABLE MATERIALS, SCARIFYING TO PROVIDE A BOND WITH THE NEW FILL AND, WHERE SLOPES ARE STEEPER THAN FIVE TO ONE AND THE FILL HEIGHT IS GREATER THAN 5 FEET, BY BENCHING INTO COMPETENT MATERIAL. THE BENCH UNDER THE TOE OF A FILL ON A SLOPE STEEPER THAN A FIVE TO ONE SHALL BE AT LEAST 10 FEET WIDE. WHEN FILL IS TO BE PLACED OVER CUT, THE BENCH OVER THE TOE OF FILL SHALL BE AT LEAST 10 FEET WIDE BUT THE CUT SHALL BE MADE BEFORE THE FILL AND SHALL BE SUITABLE FOUNDATION FOR FILL.

2) FILL MATERIAL: DETRIMENTAL AMOUNTS OF ORGANIC MATERIAL SHALL NOT BE PERMITTED IN FILL.

3) COMPACTION: ALL STRUCTURAL FILLS (UNDER RESIDENTIAL LOTS, BUILDINGS, AND PAVEMENT OR CONCRETE) SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY ACCORDING TO ASTM D1557 (MODIFIED PROCTOR). THE TOP 6 INCHES OF ALL ROAD SUBGRADES SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY. NON STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 85% OF MAXIMUM DENSITY ACCORDING TO ASTM D1557 (MODIFIED PROCTOR). ALL FILLS MUST BE CERTIFIED AS MEETING THESE SPECIFICATIONS BY A PROFESSIONAL ENGINEER. COMPACTION TESTS SHALL BE TAKEN ON EACH LIFT (MAXIMUM 8" LOOSE DEPTH IN STRUCTURAL FILLS AND 12" MAXIMUM LOOSE DEPTH IN NON STRUCTURAL FILLS) OF FILL PLACED.

4) TESTING: THE CONTRACTOR SHALL HIRE A MATERIAL TESTING LAB TO PERFORM MATERIALS TESTING OR OBSERVED TESTING (FOR ROCK FILL) AND PROVIDE THE TESTING RESULTS TO THE ENGINEER FOR REVIEW.

POINT LEGEND

EG	= EXISTING GRADE
FG	= FINISH GRADE
TBC	= TOP BACK OF CURB
LIP	= LIP OF GUTTER
ACP	= ASPHALT CEMENT PAVEMENT
CONC	= CONCRETE
EXT	= EXISTING
MON	= MONUMENT
INV	= INVERT
CL	= CENTERLINE
FF	= FINISH FLOOR
RIM	= RIM OF STRUCTURE
TBW	= TOP BACK OF WALL

AVISTA UTILITIES LEGEND

FRANCHISE UTILITIES SHOULD FOLLOW AVISTA CONDUIT TO EACH LOT. CONTACT EACH UTILITY PROVIDER FOR A DETAILED LAYOUT PLAN.

DESCRIPTOR	EXISTING UTILITY
3P	POWER 3 PHASE – (3) 2" CONDUITS
P2	POWER SINGLE 2" PRIMARY CONDUIT
PS3	POWER SINGLE 3" SECONDARY CONDUIT
PS2	POWER SINGLE 2" CONDUIT
2"G	GAS 2"
3/4"G	GAS 3/4" STUB
	ABOVE GROUND TRANSFORMER
	FLUSH MOUNT SECONDARY HANDHOLE
	STREET LIGHT

OPINION OF QUANTITIES

GENERAL

NOTIFICATION SIGN = 1 LS
TRAFFIC CONTROL AS NEEDED = 1 LS
EROSION CONTROL AS NEEDED = 1 LS
MATERIALS TESTING = 1 LS
COMPLY WITH CITY INSPECTION & TESTING (SHEET 23) = 1 LS

DEMOLITION

4TH ST. SAWCUT ASPHALT = 652 LF
4TH ST. REMOVE ASPHALT PAVEMENT = 322 SY
4TH ST. REMOVE CURB, GUTTER, SIDEWALK = 20.5 SY
4TH ST. ROAD X FOR PAVEMENT SECTION = 184 C.Y.
4TH ST. REMOVE FENCING = 840 L.F.
4TH ST. REMOVE 24" TO 30" TREE = 5 EA
4TH ST. SALVAGE & RELOCATE 25 MPH SIGN = 1 EA
CLEAR & GRUBB 4" DEPTH = 2396 C.Y.
REMOVE CONCRETE SLABS = 50 S.Y.
REMOVE SHED (100 SF) = 1 EA
REMOVE BUILDING (540 SF) = 1 EA
REMOVE HANGER (3,765 SF) = 1 EA

WATER UTILITIES

8" HOT TAP = 2 EA
8" GATE VALVE = 7 EA
6" GATE VALVE = 3 EA
FIRE HYDRANT = 3 EA
8"X6"X8" TEE = 3 EA
8"X8"X8" TEE = 1 EA
8" 45° ELBOW = 6 EA
8" 22-1/2° ELBOW = 2 EA
8" 11-1/4° ELBOW = 1 EA
8" BLIND FLANGE = 1 EA
3/4" SERVICE SADDLE = 47 EA
3/4" WATER METER ASSEMBLY = 47 EA
3/4" WATER SERVICE LINE = 1,693 L.F.
6" C-900 WATER MAIN = 37 LF
8" C-900 WATER MAIN = 1,673

IRRIGATION UTILITIES

6" HOT TAP = 2EA
6" GATE VALVE = 6 EA
6"X6"X6" TEE = 1 EA
6" 45° ELBOW = 6 EA
6" 22-1/2° ELBOW = 2 EA
6" 11-1/4° ELBOW = 2 EA
6" BLIND FLANGE = 1 EA
SERVICE SADDLE = 47 EA
IRRIGATION ASSEMBLY = 47
IRRIGATION SERVICE LINE = 1,672 LF
6" IRRIGATION MAIN = 1,696 LF

STORM UTILITIES

STORM MANHOLE = 1 EA
CATCH BASIN = 5 EA
OPEN BOTTOM CATCH BASIN = 1 EA
CONCRETE TUB FOR CATCH BASIN BUBBER = 1 EA
12" PVC SDR 35 PIPE = 450 LF
STORM WATER POND = 1 EA

SEWER UTILITIES

MANHOLE = 7 EA
8" X 4" WYE = 47 EA
4" PVC SDR 35 PIPE = 2,549 LF
8" PVC SDR 35 PIPE = 1,076

CIVIL WORK

SITE CUT = 5,983 CY
SITE FILL = 7,870 CY
X SPOIL FROM BEDDING = 735 CY
SITE IMPORT = 1,152 CY
HIGH BACK CURB & GUTTER = 1,937 LF
ROLLED CURB & GUTTER = 1,713 LF
SIDEWALK SECTION = 1,584 SY
ADA RAMP = 7 EA
CONCRETE SECTION FOR ADA RAMP = 36 SY
INLET APRON STORM SWALE = 23 EA
STREET MONUMENTS = 10 EA
END OF ROAD BARRICADES = 2 EA
STOP SIGN WITH (2) STREET NAME SIGNS = 3 EA
RELOCATE SPEED LIMIT SIGN = 1 EA
4TH STREET PAVEMENT SECTION = 552 SY
WARNER AVENUE PAVEMENT SECTION = 2,774 SY
PAVED PATH SECTION = 150 SY
PARK DRIVE PAVEMENT SECTION = 3,332 SY
SWALE SECTION WARNER AVENUE = 1,454 SY
SWALE SECTION 4TH STREET = 493 SY
POND ACCESS ROAD 8" DEPTH = 62.2 SY

NOTES

1) ALL VOLUMES ARE COMPACTED VOLUMES, LENGTHS ARE PLAN VIEW
2) THE CONTRACTOR SHALL SATISFY FOR THEMSELVES THE QUANTITIES REQUIRED TO COMPLETE THIS PROJECT.
3) ITEMS NOT LISTED ARE INCIDENTAL

NO.	DATE	BY	FILENAME
			REVISIONS
0			682

ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER — CHARLES R. FISKE — STATE OF IDAHO — 10962 — 10-12-20

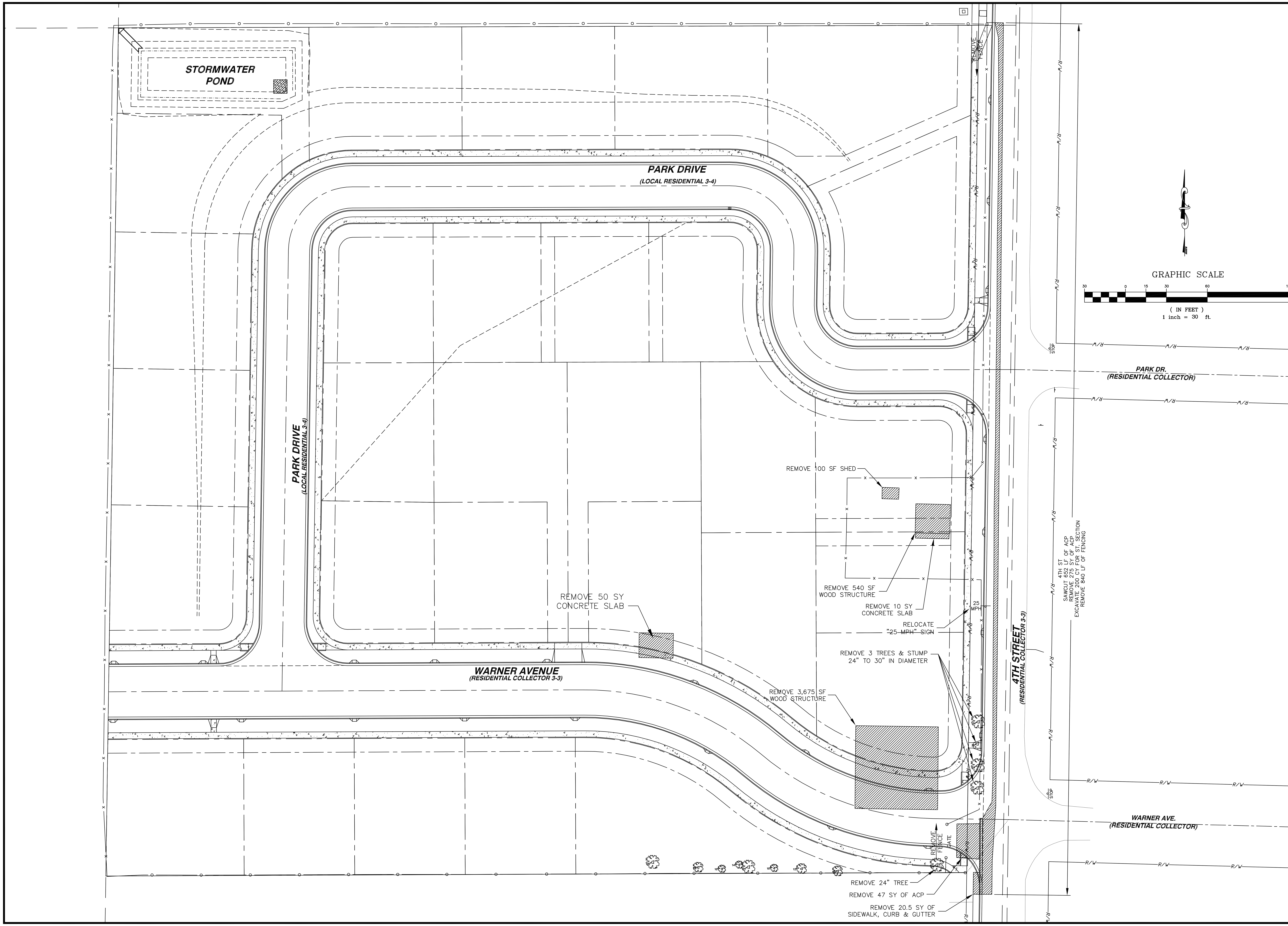
4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 790-1082
(208) 791-8055

NACLINE ENGINEERING & DRAFTING "an affordable alternative"

CARLTON HANGAR ADD.
LEWISTON IDAHO 83501
4TH ST-WARNER/PARK AVE.
LEGENDS,NOTES,QUANTITIES
TRAFFIC CONTROL PLAN

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY:	CRF
SCALE:	N.A.
DATE:	10-12-20
PROJECT NO.:	682

SHEET 2 OF 24



NO.	DATE	BY	REVISIONS

FILENAME: 682 — ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER 10962 10-12-20 STATE OF IDAHO CHARLES R. FISKE

NACLINE ENGINEERING & DRAFTING
"an affordable alternative"

4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 750-1082
(208) 791-8055

CARLTON HANGAR ADD.

LEWISTON IDAHO 83501
4TH ST-WARNER/PARK AVE.

DEMOLITION PLAN

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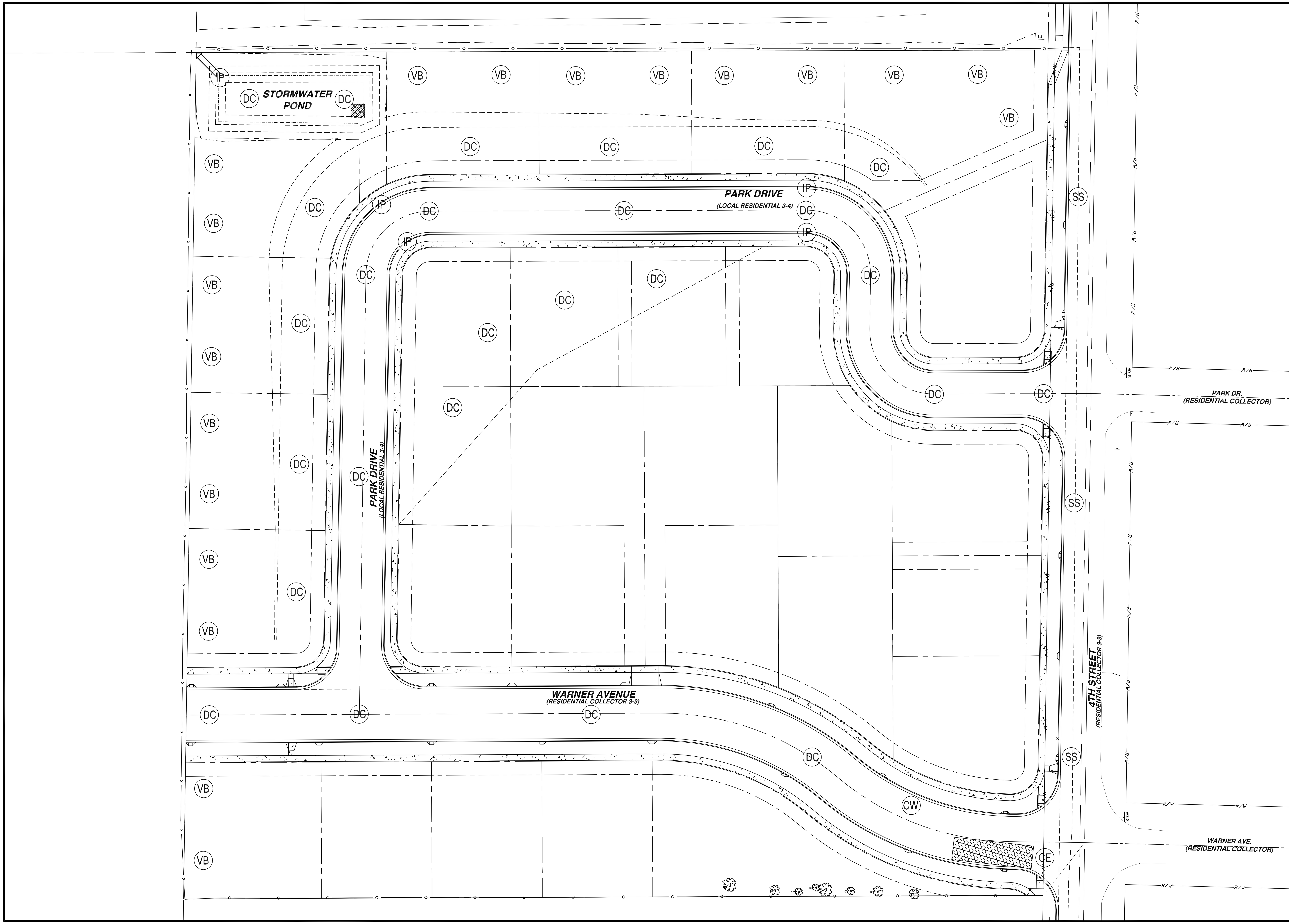
DESIGNED BY: CRF	
SCALE: 1" = 30'	
DATE: 10-12-20	
PROJECT NO.: 682	



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REGISTERED PROFESSIONAL ENGINEER
10962
10-12-20
STATE OF IDAHO
CHARLES R. FISKE

NACLINE ENGINEERING & DRAFTING
"an affordable alternative"
4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 750-1082
(208) 791-8035

CARLTON HANGAR ADD.

LEWISTON IDAHO 83501
4TH ST-WARNER/PARK AVE.

EROSION CONTROL PLAN

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY: CRF	
SCALE: 1" = 30'	
DATE: 10/12/20	
PROJECT NO.: 682	
SHEET 4 OF 24	

STORMWATER POND

PARK DRIVE
(LOCAL RESIDENTIAL 3-4)

PARK DRIVE
(LOCAL RESIDENTIAL 3-4)

WARNER AVENUE
(RESIDENTIAL COLLECTOR 3-3)

4TH STREET
(RESIDENTIAL COLLECTOR 3-3)

PARK DR.
(RESIDENTIAL COLLECTOR)

WARNER AVE.
(RESIDENTIAL COLLECTOR)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO.	DATE	BY	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER
CHARLES R. FISKE
STATE OF IDAHO
10962
10-12-20

NACLINE
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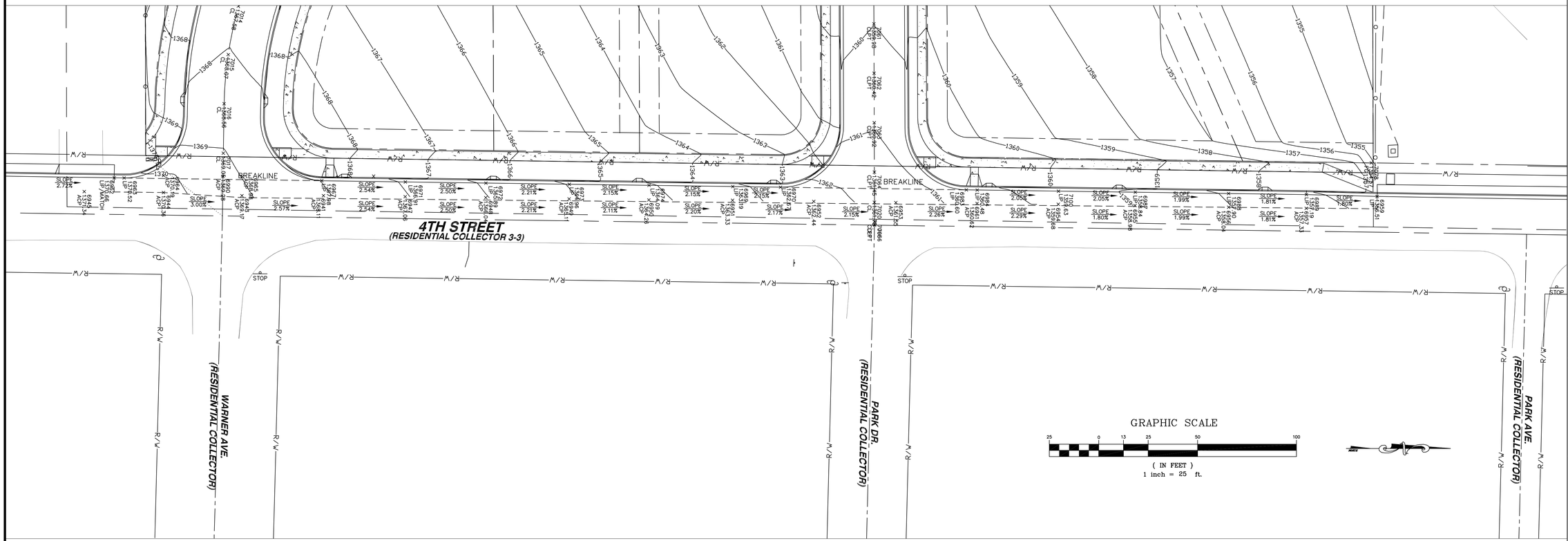
"an affordable alternative"
4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 750-1082
(208) 791-8055

CARLTON HANGAR ADD.
LEWISTON IDAHO 83501
4TH ST-WARNER/PARK AVE.

GRADING PLAN

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY: CRF	
SCALE: 1" = 30'	
DATE: 10/12/20	
PROJECT NO.: 682	
SHEET 5 OF 24	



4 TH STREET GRADING PLAN

NO.	DATE	BY	FILENAME
0			682

REVISIONS

ORIGINAL DRAWING

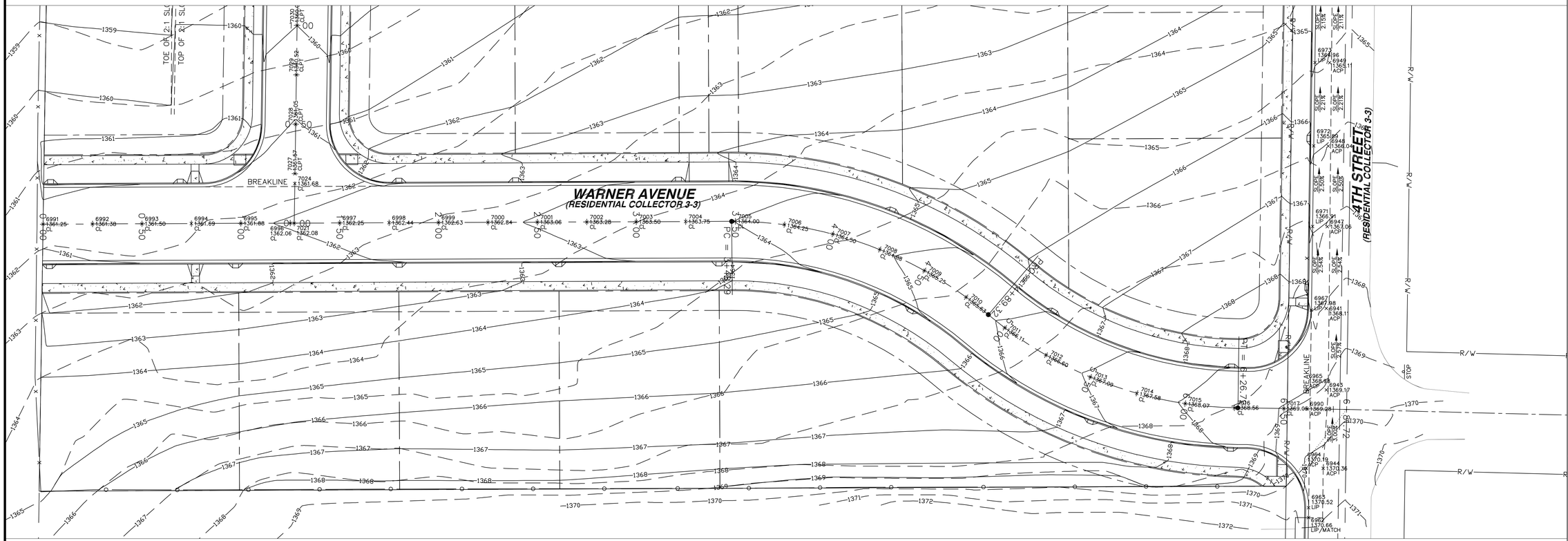
REGISTERED PROFESSIONAL ENGINEER
CHARLES R. FISKE
STATE OF IDAHO
10962
10-12-20

4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 750-1082
(208) 791-8055

NACLINE ENGINEERING & DRAFTING
"an affordable alternative"

CARLTON HANGAR ADD.
LEWISOTN IDAHO 83501
4TH ST-WARNER/PARK AVE.
4TH STREET
GRADING PLAN

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY: CRF	
SCALE: 1" = 25'	
DATE: 10/12/20	
PROJECT NO.: 682	
SHEET 6 OF 24	

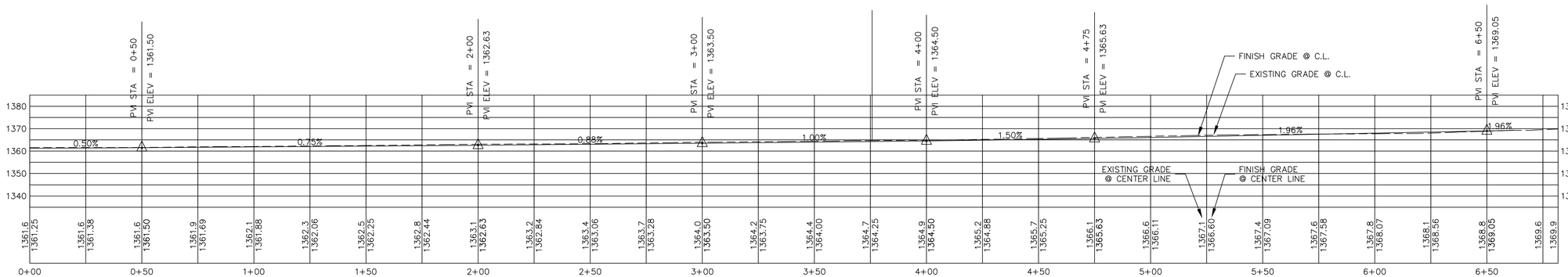


WARNER AVENUE PLAN VIEW

GRAPHIC SCALE

25 0 13 25 50 100

(IN FEET)
1 inch = 25 ft.



VERTICAL SCALE: 1"=30'
HORIZONTAL SCALE: 1"=30'

WARNER AVENUE PROFILE VIEW

NO.	DATE	BY	FILENAME	REVISIONS
				682
				0

ORIGINAL DRAWING

PROFESSIONAL ENGINEER
REGISTERED
10962
10-12-20
STATE OF IDAHO
CHARLES R. FISKE

4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 790-1082
(208) 791-8055

NACLINE
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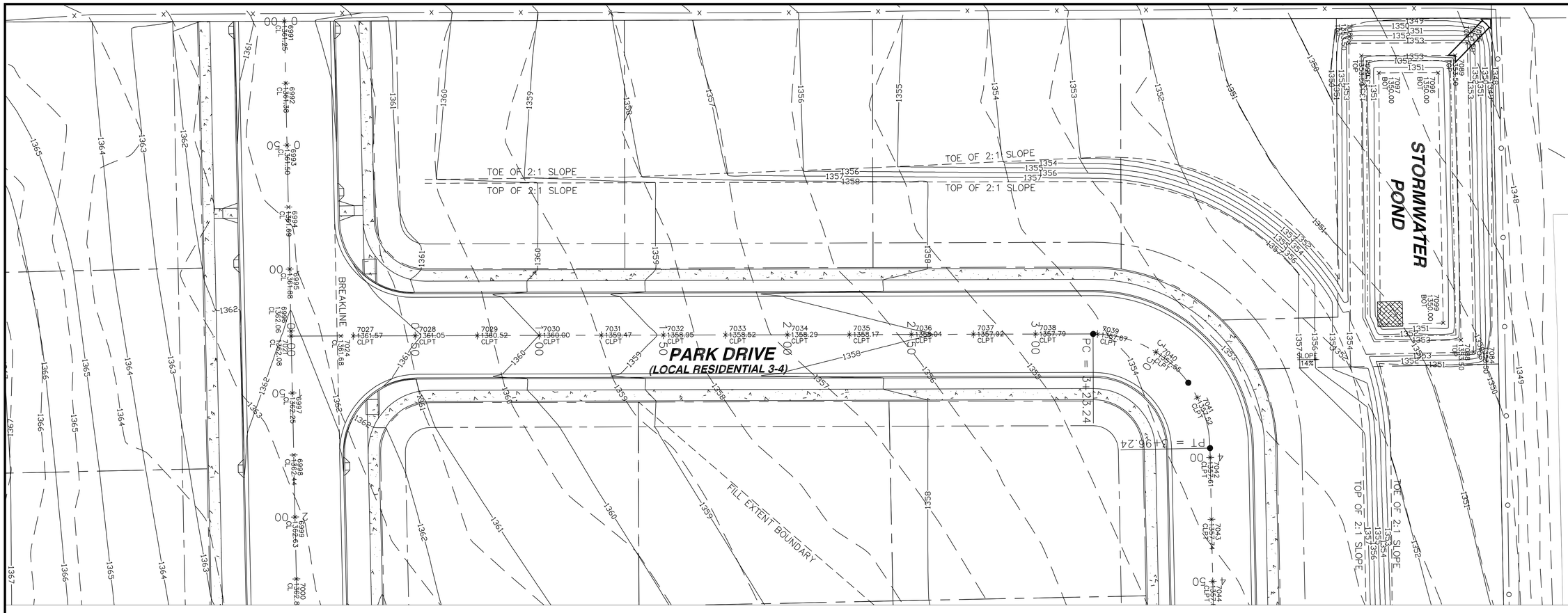
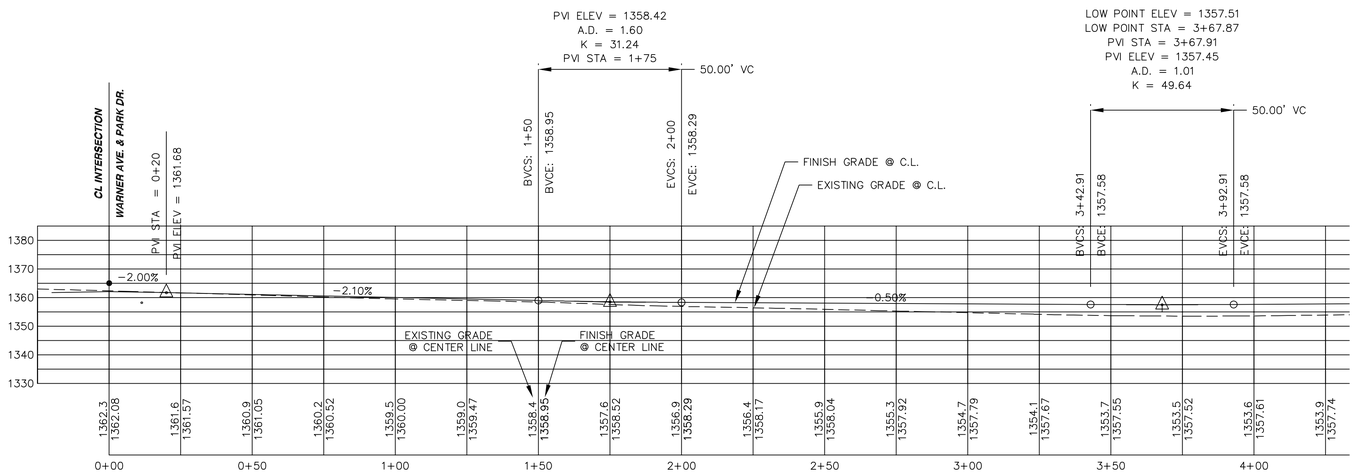
"an affordable alternative"

CARLTON HANGAR ADD.
LEWISOTN IDAHO 83501
4TH ST-WARNER/PARK AVE.
WARNER AVENUE
GRADING PLAN & PROFILE

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY: CRF	
SCALE: 1" = 25'	
DATE: 10/12/20	
PROJECT NO.: 682	
SHEET 7 OF 24	



PARK DRIVE PLAN VIEW



VERTICAL SCALE: 1"=30'
HORIZONTAL SCALE: 1"=30'

PARK DRIVE PROFILE VIEW

GRAPHIC SCALE

25 0 13 25 50 100

(IN FEET)
1 inch = 25 ft.

NO.	DATE	AB	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING

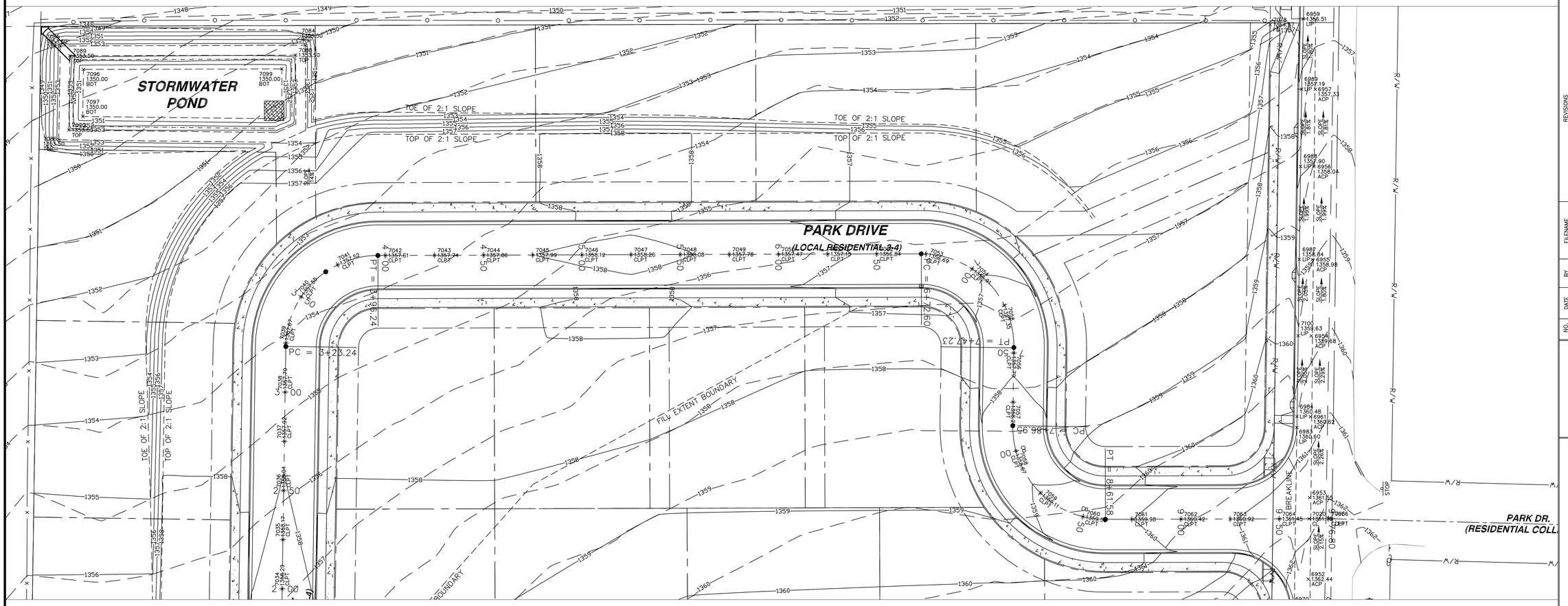
REGISTERED PROFESSIONAL ENGINEER
CHARLES R. FISKE
STATE OF IDAHO
10962
10-12-20

4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX: (208) 750-1082
(208) 791-8055

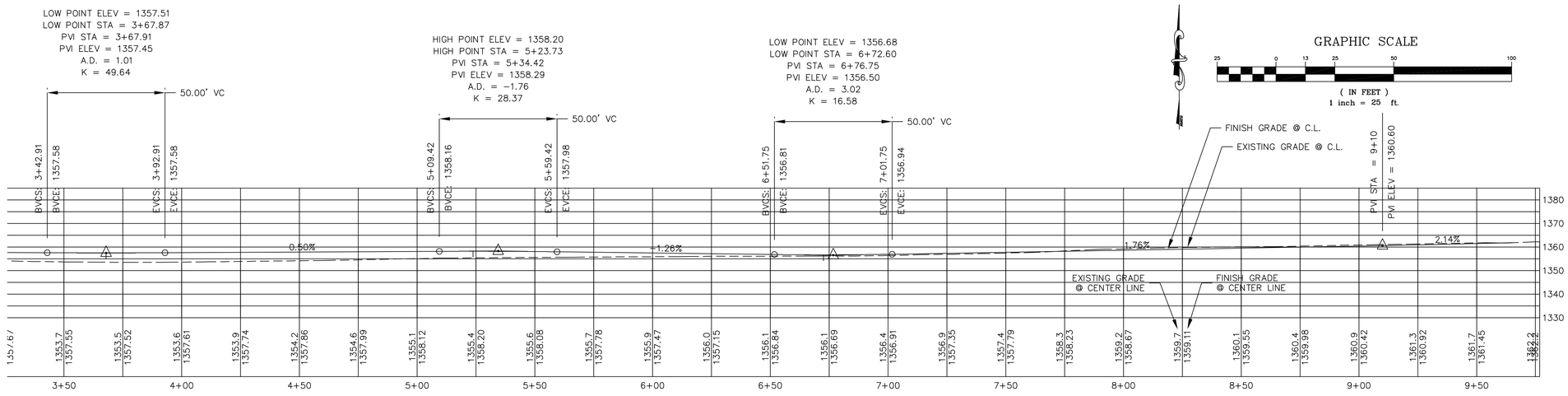
NACLINE ENGINEERING & DRAFTING
"an affordable alternative"

CARLTON HANGAR ADD.
LEWISOTN IDAHO 83501
4TH ST-WARNER/PARK AVE.
PARK DRIVE 1 OF 2
GRDING PLAN & PROFILE

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY:	CRF
SCALE:	1" = 25'
DATE:	10/12/20
PROJECT NO.:	682
SHEET 8	OF 24



PARK DRIVE PLAN VIEW



PARK DRIVE PROFILE VIEW

VERTICAL SCALE: 1"=30'
HORIZONTAL SCALE: 1"=30'

NO.	DATE	BY	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER
10962
10-19-20
STATE OF IDAHO
CHARLES R. FISKE

4025 EAGLE COURT
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FAX: (208) 750-1082
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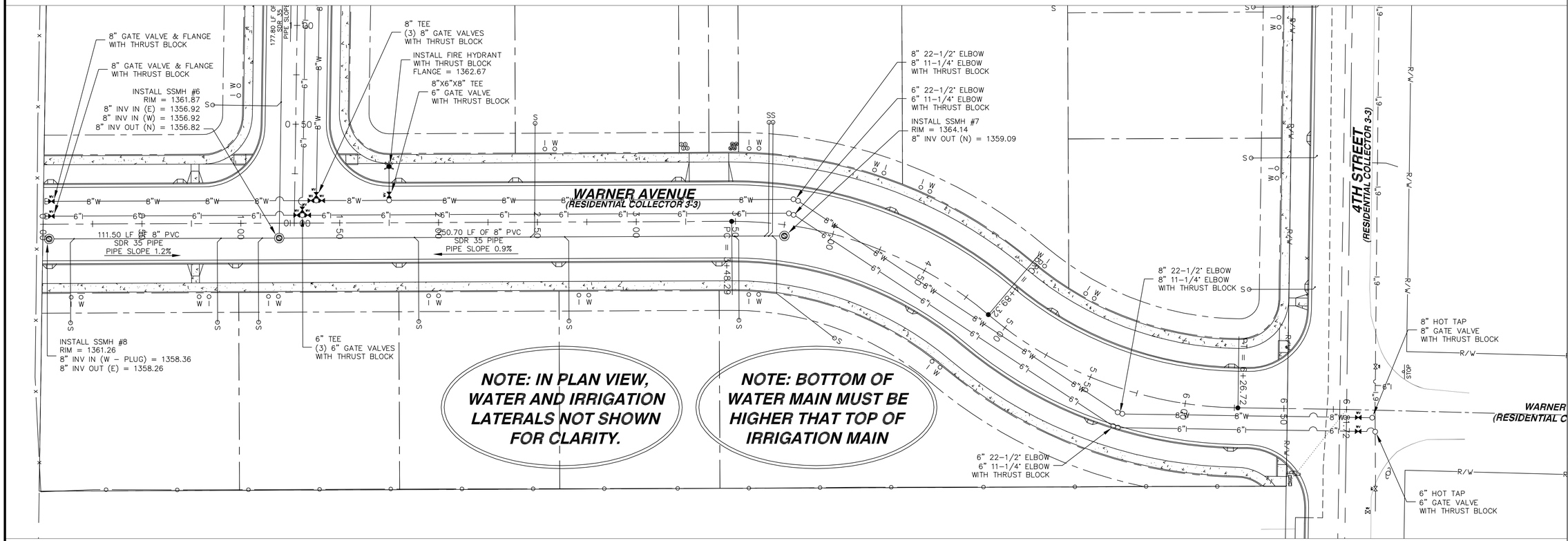
NACLINE
ENGINEERING & DRAFTING
"an affordable alternative"

CARLTON HANGAR ADD.
LEWISTON ID 83501
4TH ST-WARNER/PARK AVE.
PARK DRIVE 2 OF 2
GRADING PLAN & PROFILE

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY:	CRF
SCALE:	1" = 25'
DATE:	10/12/20
PROJECT NO.:	682
SHEET 9	OF 24

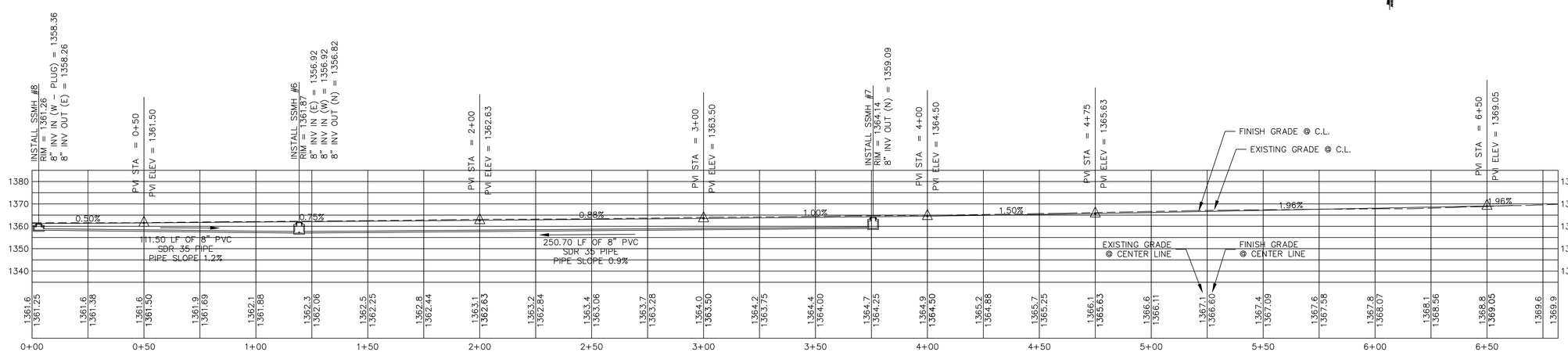


WARNER AVENUE PLAN VIEW

GRAPHIC SCALE

25 0 13 25 50 100

(IN FEET)
1 inch = 25 ft.



VERTICAL SCALE: 1"=30'
HORIZONTAL SCALE: 1"=30'

WARNER AVENUE PROFILE VIEW

NO.	DATE	BY	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER 10962 10-19-20 STATE OF IDAHO CHARLES R. FISKE

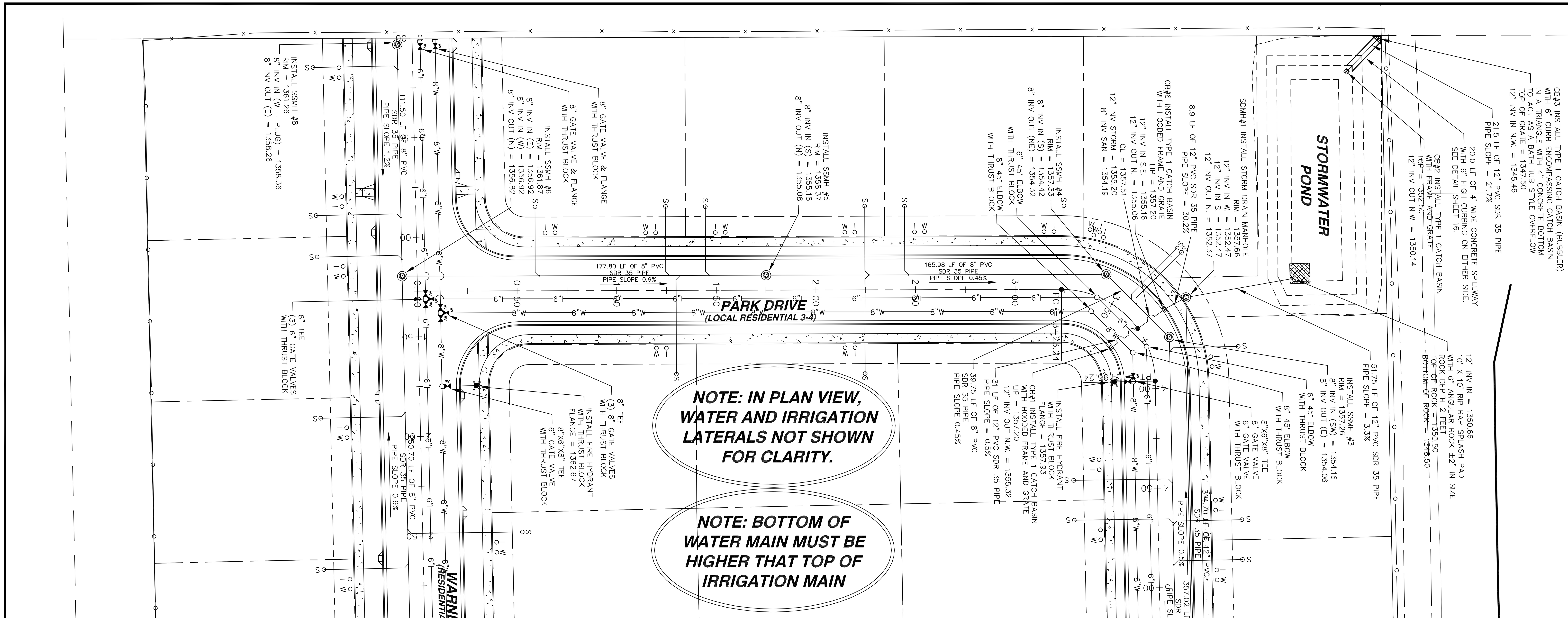
4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 790-1082
(208) 791-8055

NACLINE ENGINEERING & DRAFTING "an affordable alternative"

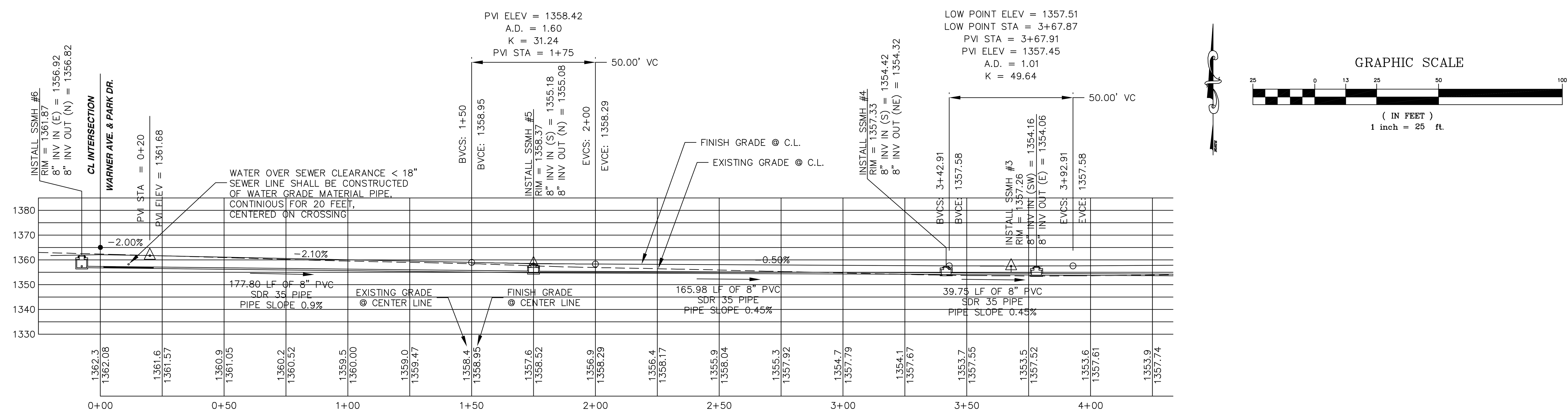
CARLTON HANGAR ADD.
LEWISOTN IDAHO 83501
4TH ST-WARNER/PARK AVE.
WARNER AVENUE
UTILITY PLAN & PROFILE

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY: CRF	
SCALE: 1" = 25'	
DATE: 10/12/20	
PROJECT NO.: 682	

SHEET 10 OF 24



PARK DRIVE UTILITY PLAN VIEW



VERTICAL SCALE: 1"=30'
HORIZONTAL SCALE: 1"=30'

PARK DRIVE UTILITY PROFILE VIEW

NO.	DATE	BY	FILENAME	REVISIONS
0				ORIGINAL DRAWING
			682	

REGISTERED PROFESSIONAL ENGINEER 10962 — 10-12-20 — STATE OF IDAHO — CHARLES R. FISKE

NACLINE ENGINEERING & DRAFTING
"an affordable alternative"
4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 750-1082
(208) 791-8035

CARLTON HANGAR ADD.
LEWISOTN IDAHO 83501
4TH ST-WARNER/PARK AVE.
PARK DRIVE 1 OF 2
UTILITY PLAN & PROFILE

DRAWN BY: CRF
CHECKED BY: CRF
DESIGNED BY: CRF
SCALE: 1" = 25'
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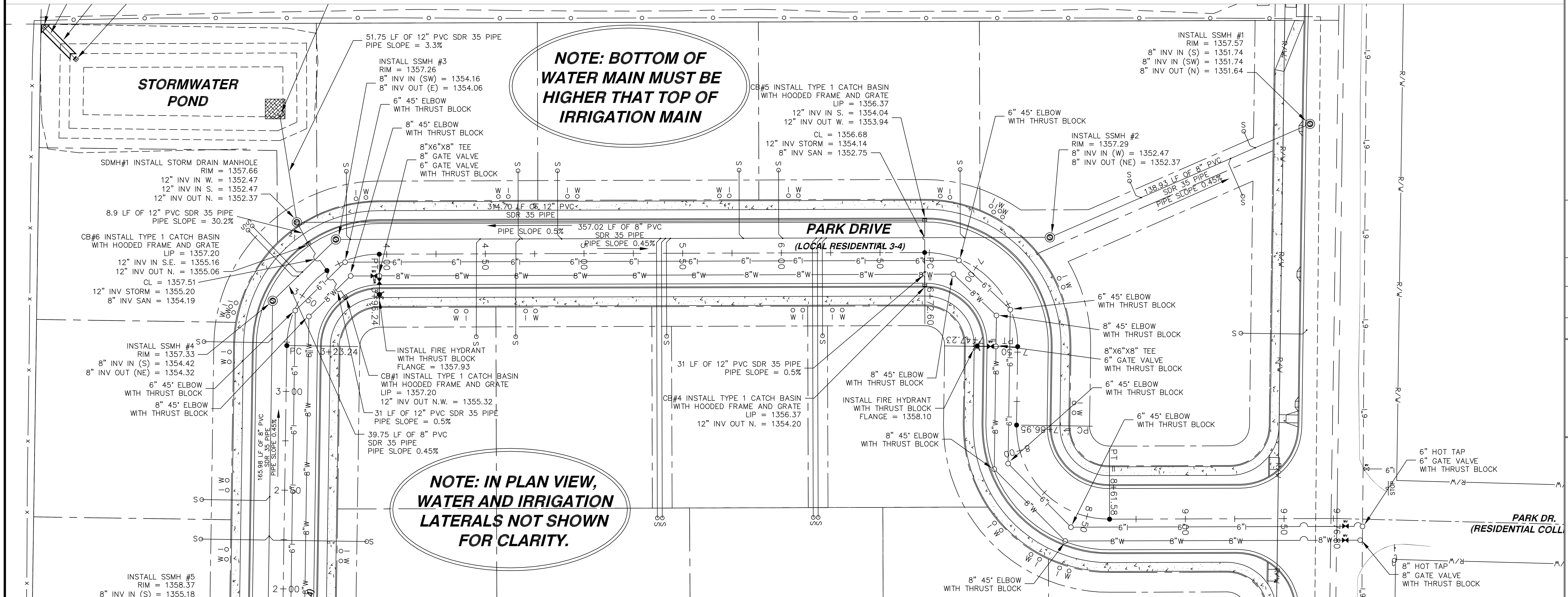
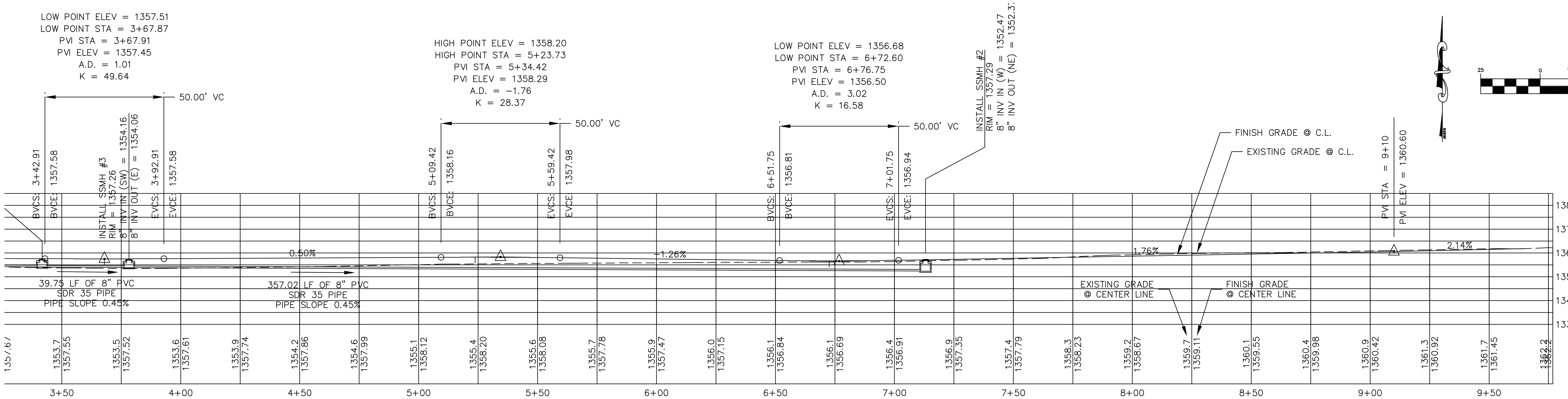
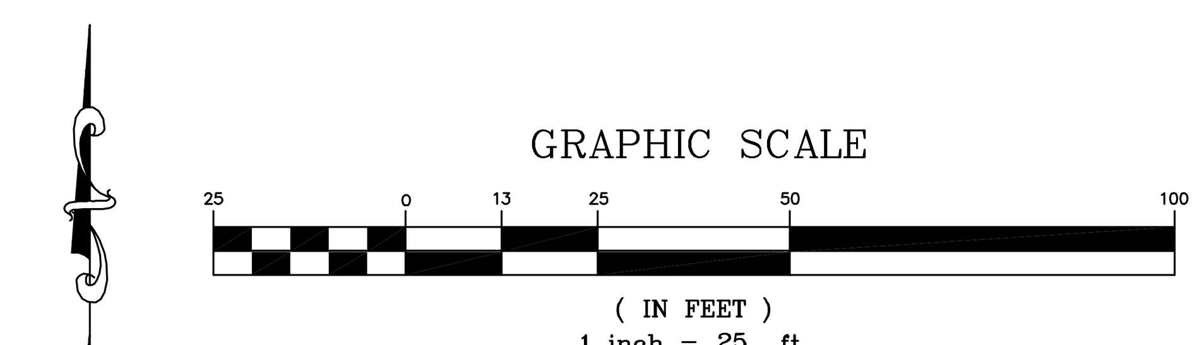


PARK DRIVE UTILITY PLAN VIEW





PARK DRIVE UTILITY PROFILE VIEW

VERTICAL SCALE: 1"=30'
HORIZONTAL SCALE: 1"=30'

REVISIONS				
NO.	DATE	BY	FILENAME	
0			682	ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER 10962 10-12-20 STATE OF IDAHO CHARLES R. FISKE

NACLINE ENGINEERING & DRAFTING
"an affordable alternative"
4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX (208) 750-1082
(208) 791-8055

CARLTON HANGAR ADD.

LEWISTON ID 83501
4TH ST-WARNER/PARK AVE.
PARK DRIVE 2 OF 2
UTILITY PLAN & PROFILE

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STORMWATER POND

PARK DRIVE
(LOCAL RESIDENTIAL 3-4)

WARNER AVENUE
(RESIDENTIAL COLLECTOR 3-3)

4TH STREET
(RESIDENTIAL COLLECTOR 3-3)

REMOVE EXISTING SERVICE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

AVISTA UTILITIES LEGEND

FRANCHISE UTILITIES SHOULD FOLLOW AVISTA CONDUIT TO EACH LOT. CONTACT EACH UTILITY PROVIDER FOR A DETAILED LAYOUT PLAN.

DESCRIPTOR	
3P	EXISTING UTILITY
P2	POWER 3 PHASE – (3) 2" CONDUITS
PS3	POWER SINGLE 2" PRIMARY CONDUIT
PS2	POWER SINGLE 3" SECONDARY CONDUIT
2"G	POWER SINGLE 2" CONDUIT
3/4"G	GAS 2"
	GAS 3/4" STUB

ABOVE GROUND TRANSFORMER

FLUSH MOUNT SECONDARY HANDHOLE

STREET LIGHT

NO.	DATE	BY	FILENAME
0			682

REVISIONS

ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER
CHARLES R. FISKE
10962
10-12-20
STATE OF IDAHO

4025 EAGLE COURT
LEWISTON, IDAHO 83501
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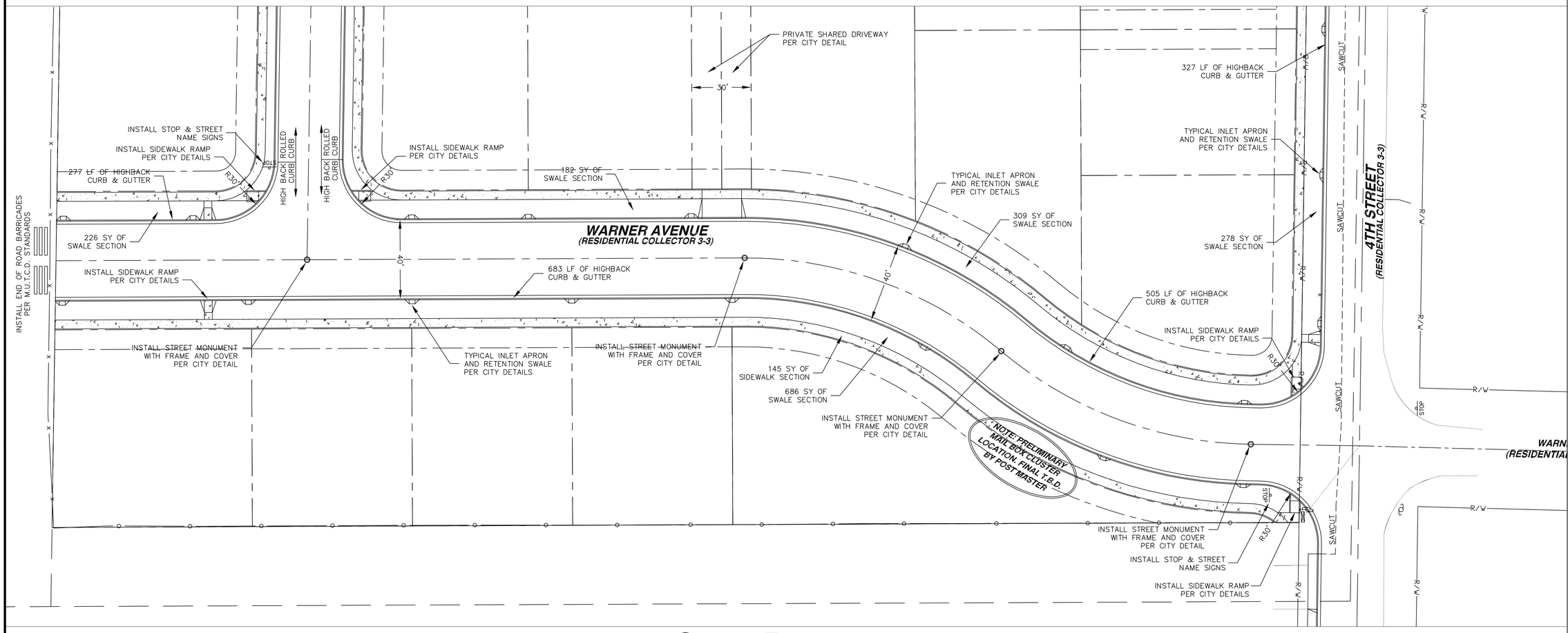
CARLTON HANGAR ADD.
LEWISTON IDAHO 83501
4TH ST–WARNER/PARK AVE.
FRANCHISE UTILITIES
AVISITA UTILITIES

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY:	CRF
SCALE:	1" = 30'
DATE:	10/12/20
PROJECT NO.:	682

SHEET 13 OF 24



CIVIL PLAN

GRAPHIC SCALE

25 0 13 25 50 100

(IN FEET)
1 inch = 25 ft.

NO.	DATE	BY	FILENAME	REVISIONS
			682	ORIGINAL DRAWING
0				

REGISTERED PROFESSIONAL ENGINEER
CHARLES R. FISKE
STATE OF IDAHO
10962
10-19-20

4025 EAGLE COURT
LEWISTON, IDAHO 83501
FAX: (208) 790-1082
(208) 791-8055

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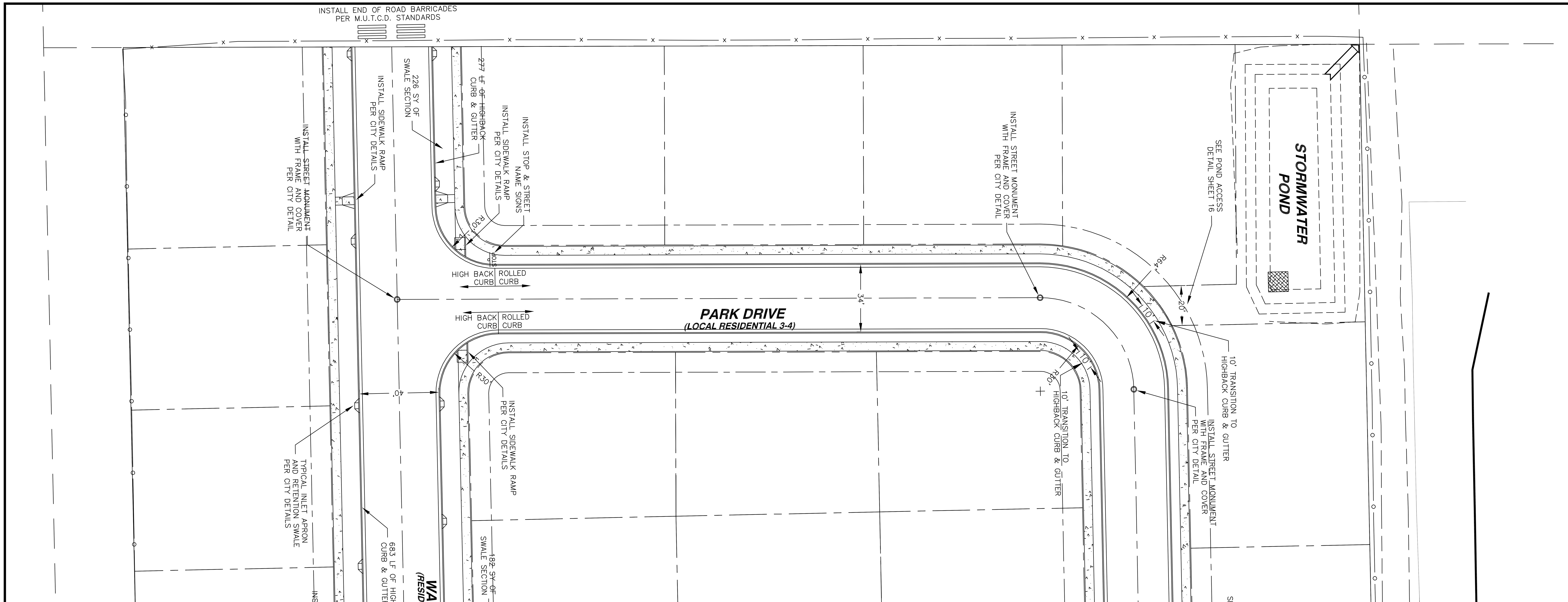
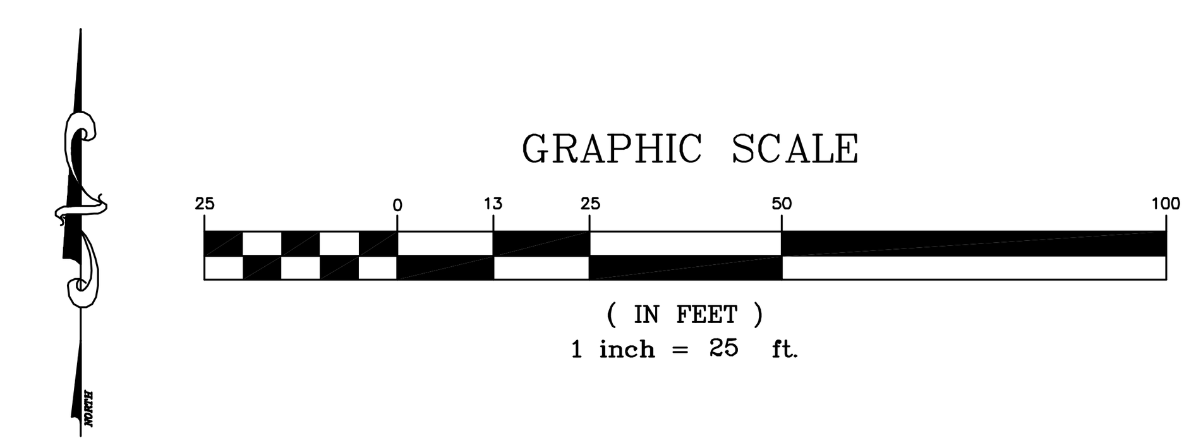
CARLTON HANGAR ADD.
LEWISOTN IDAHO 83501
4TH ST-WARNER/PARK AVE.
WARNER AVENUE
CIVIL PLAN

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY:	CRF
SCALE:	1" = 25'
DATE:	10/12/20
PROJECT NO.:	682
SHEET 14	OF 24



PARK DRIVE CIVIL PLAN



NO.	DATE	BY	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER 10962 10-12-20 STATE OF IDAHO CHARLES R. FISKE

NACLINE ENGINEERING & DRAFTING "an affordable alternative"
4025 EAGLE COURT
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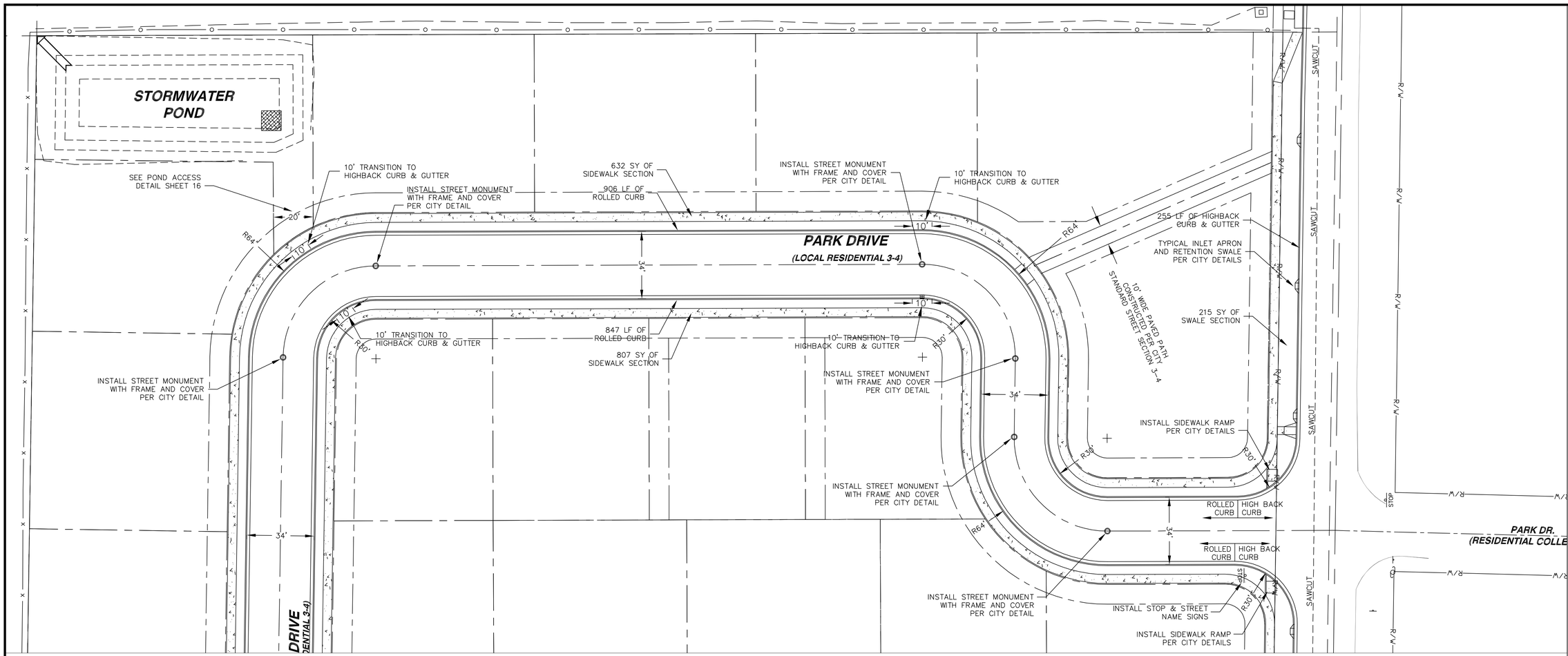
CARLTON HANGAR ADD.
LEWISOTN IDAHO 83501
4TH ST-WARNER/PARK AVE.
PARK DRIVE 1 OF 2
CIVIL PLAN

DRAWN BY: CRF
CHECKED BY: CRF
DESIGNED BY: CRF
SCALE: 1" = 25'
DATE: 10/12/20
PROJECT NO.: 682
SHEET 15 OF 24

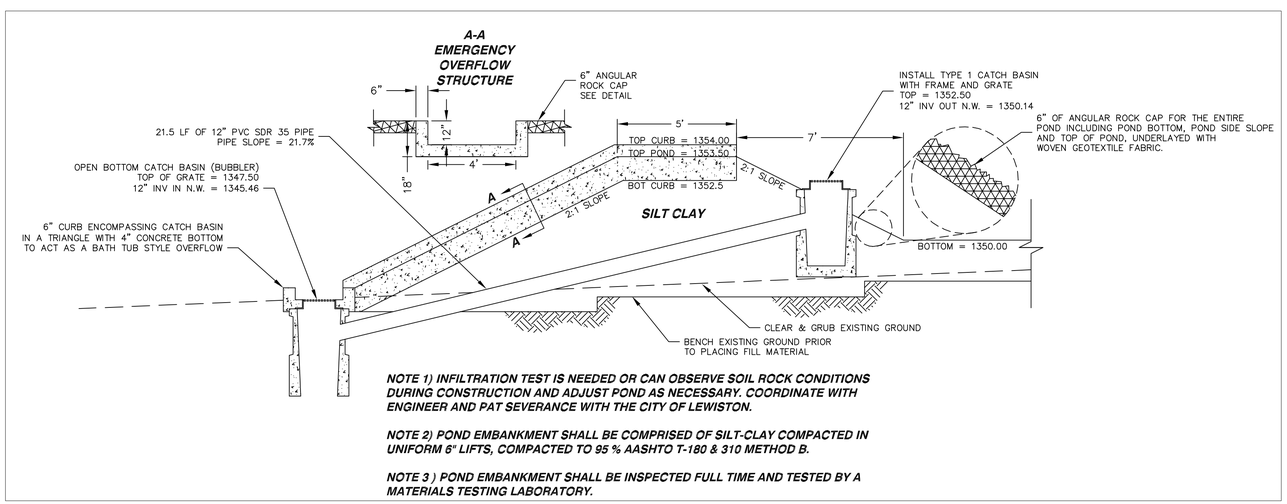


PARK DRIVE CIVIL PLAN

GRAPHIC SCALE

25 0 13 25 50 100

(IN FEET)
1 inch = 25 ft.



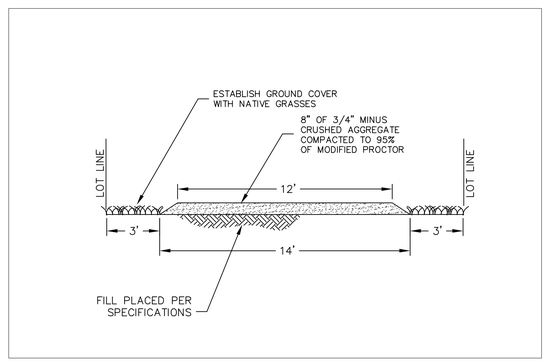
NOTE 1) INFILTRATION TEST IS NEEDED OR CAN OBSERVE SOIL ROCK CONDITIONS DURING CONSTRUCTION AND ADJUST POND AS NECESSARY. COORDINATE WITH ENGINEER AND PAT SEVERANCE WITH THE CITY OF LEWISTON.

NOTE 2) POND EMBANKMENT SHALL BE COMPRISED OF SILT-CLAY COMPACTED IN UNIFORM 6" LIFTS, COMPACTED TO 95 % AASHTO T-180 & 310 METHOD B.

NOTE 3) POND EMBANKMENT SHALL BE INSPECTED FULL TIME AND TESTED BY A MATERIALS TESTING LABORATORY.

POND SECTION DETAIL

NOTE: NO SCALE



POND ACCESS DETAIL

NOTE: NO SCALE

NO.	DATE	BY	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING

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NACLINE
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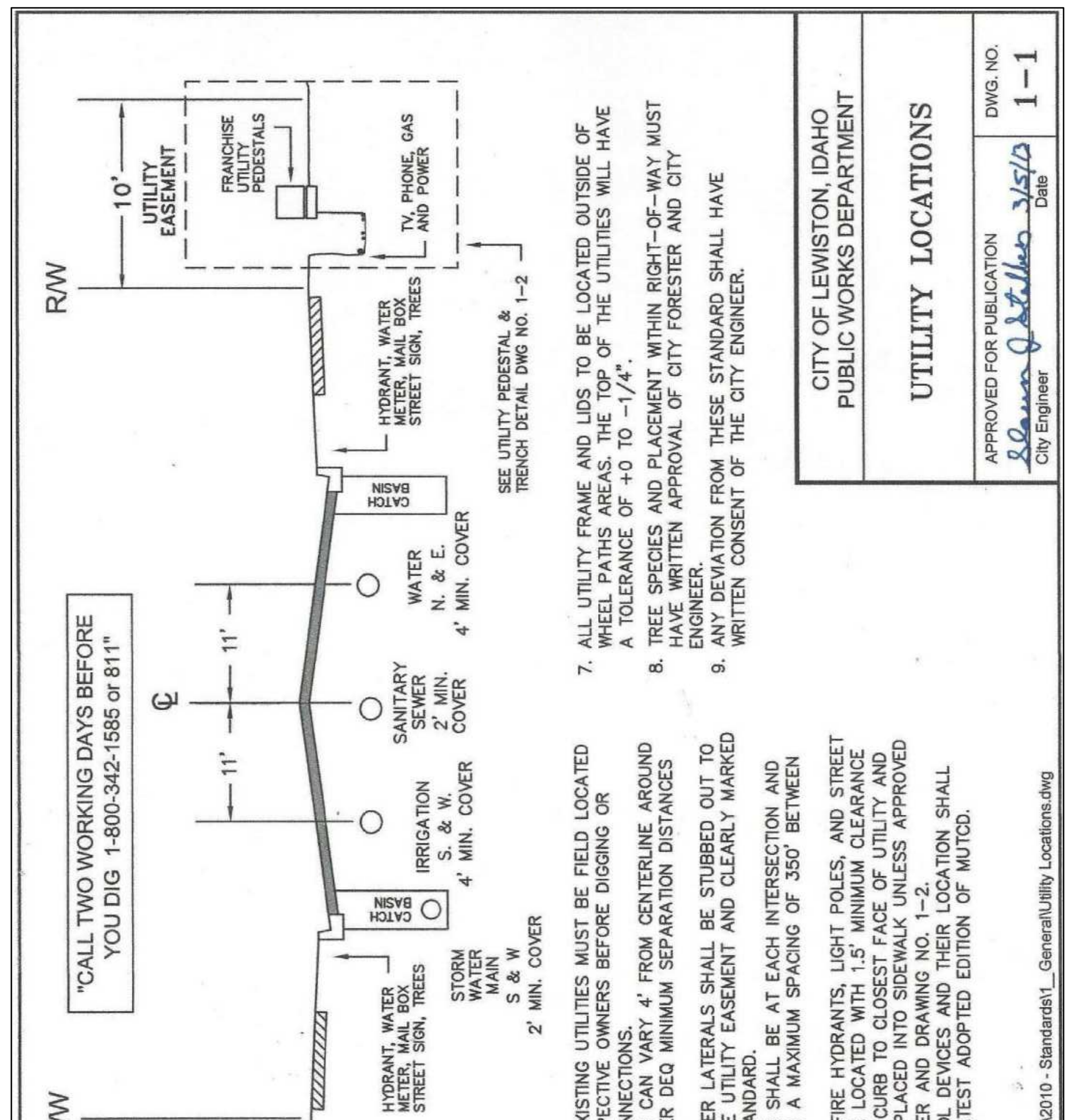
"an affordable alternative"

CARLTON HANGAR ADD.
LEWISTON ID 83501
4TH ST-WARNER/PARK AVE.
PARK DRIVE 2 OF 2
CIVIL PLAN / CIVIL DETAILS

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY: CRF	
SCALE: 1" = 25'	
DATE: 10/12/20	
PROJECT NO.: 682	

SHEET 16 OF 24

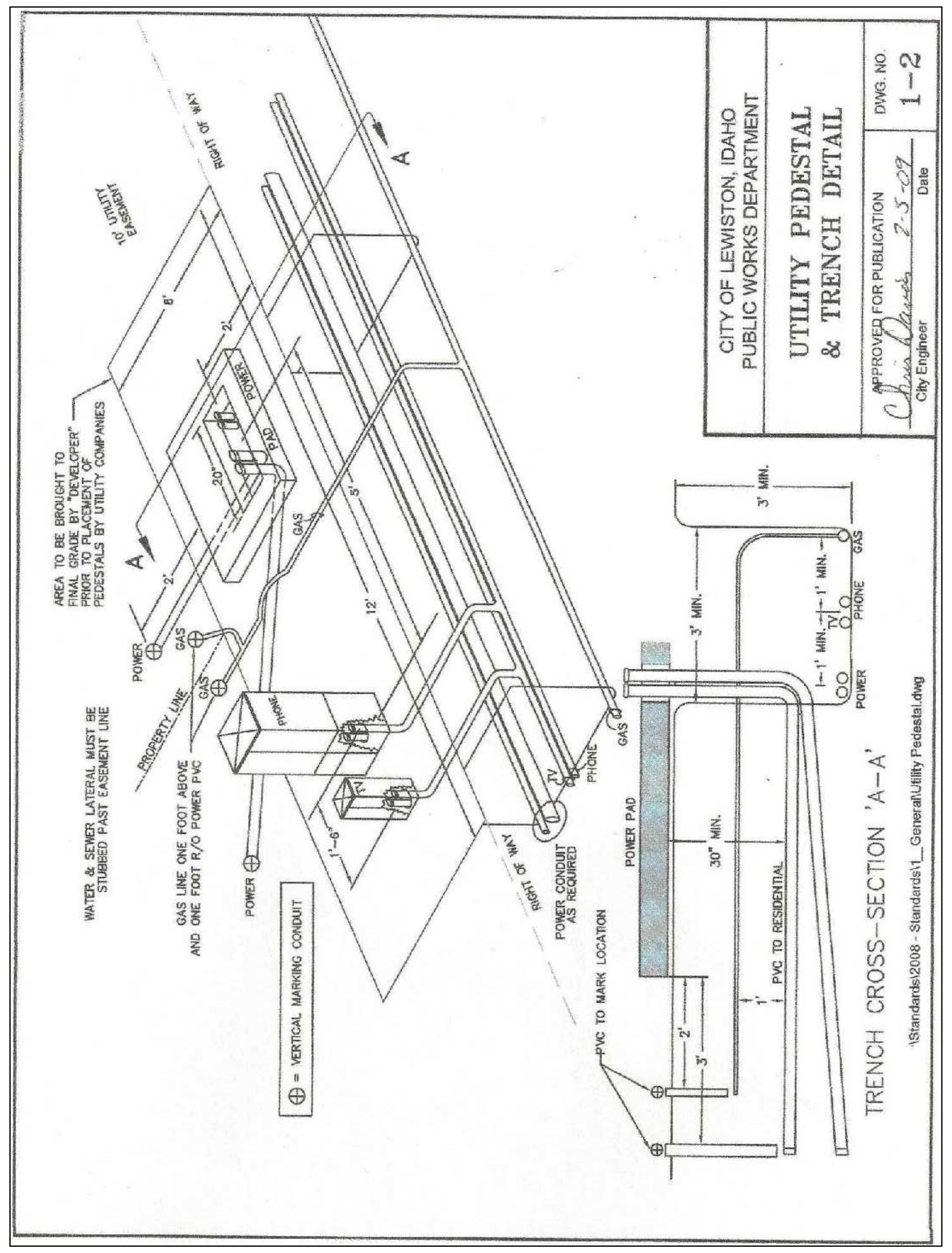

"CALL TWO WORKING DAYS BEFORE YOU DIG 1-800-342-1585 or 811"
R/W
10' UTILITY EASEMENT
FRANCHISE UTILITY PEDESTALS
TV, PHONE, GAS AND POWER
HYDRANT, WATER METER, MAIL BOX STREET SIGN, TREES
CATCH BASIN
STORM WATER MAIN S & W 2' MIN. COVER
IRRIGATION S. & W. 4' MIN. COVER
SANITARY SEWER 2' MIN. COVER
WATER N. & E. 4' MIN. COVER
11'
11'
SEE UTILITY PEDESTAL & TRENCH DETAIL DWG NO. 1-2

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

UTILITY LOCATIONS

APPROVED FOR PUBLICATION — City Engineer — Date — DWG. NO. 1-1

\Standards\2010 - Standards\1 - General\Utility Locations.dwg

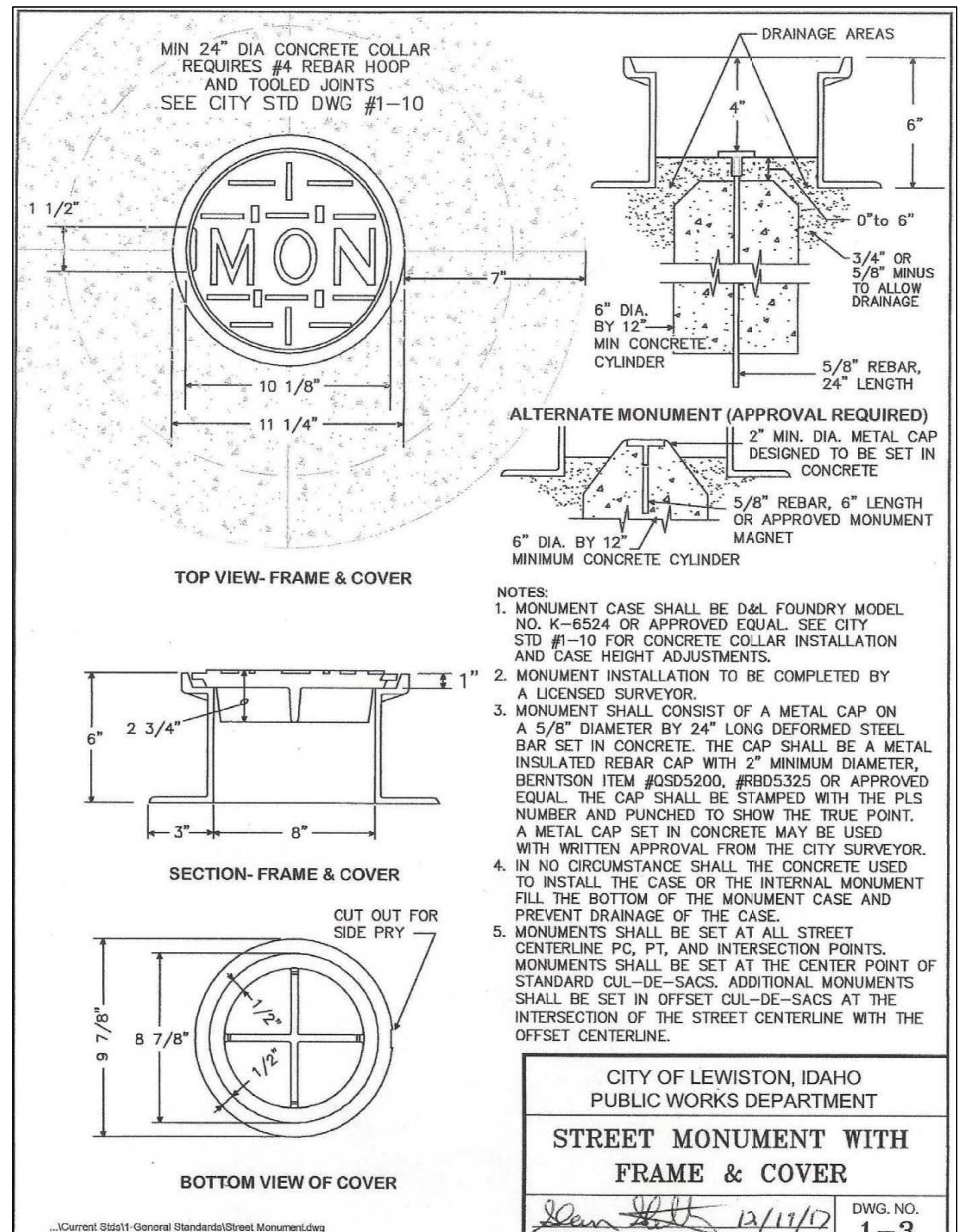

A
A
RIGHT OF WAY
POWER
GAS
PROPERTY LINE
POWER
WATER & SEWER LATERAL MUST BE STUBBED PAST EASEMENT LINE
GAS LINE ONE FOOT ABOVE AND ONE FOOT R/O POWER PVC
= VERTICAL MARKING CONDUIT
POWER CONDUIT AS REQUIRED
POWER PAD
PVC TO MARK LOCATION
PVC TO RESIDENTIAL
30" MIN.
3' MIN.
1' MIN.
PHONE
GAS
POWER
TRENCH CROSS-SECTION 'A-A'

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

UTILITY PEDESTAL & TRENCH DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date 2-5-09 — DWG. NO. 1-2

\Standards\2008 - Standards\1_General\Utility Pedestal.dwg


MIN 24" DIA CONCRETE COLLAR REQUIRES #4 REBAR HOOP AND TOOLED JOINTS SEE CITY STD DWG #1-10
MON
1 1/2"
10 1/8"
11 1/4"
TOP VIEW- FRAME & COVER
DRAINAGE AREAS
6"
0"to 6"
3/4" OR 5/8" MINUS TO ALLOW DRAINAGE
6" DIA. BY 12" MIN CONCRETE CYLINDER
5/8" REBAR, 24" LENGTH
ALTERNATE MONUMENT (APPROVAL REQUIRED)
2" MIN. DIA. METAL CAP DESIGNED TO BE SET IN CONCRETE
5/8" REBAR, 6" LENGTH OR APPROVED MONUMENT MAGNET
6" DIA. BY 12" MINIMUM CONCRETE CYLINDER
2 3/4"
1"
6"
3"
8"
SECTION- FRAME & COVER
CUT OUT FOR SIDE PRY
9 7/8"
8 7/8"
1/2"
BOTTOM VIEW OF COVER

NOTES:

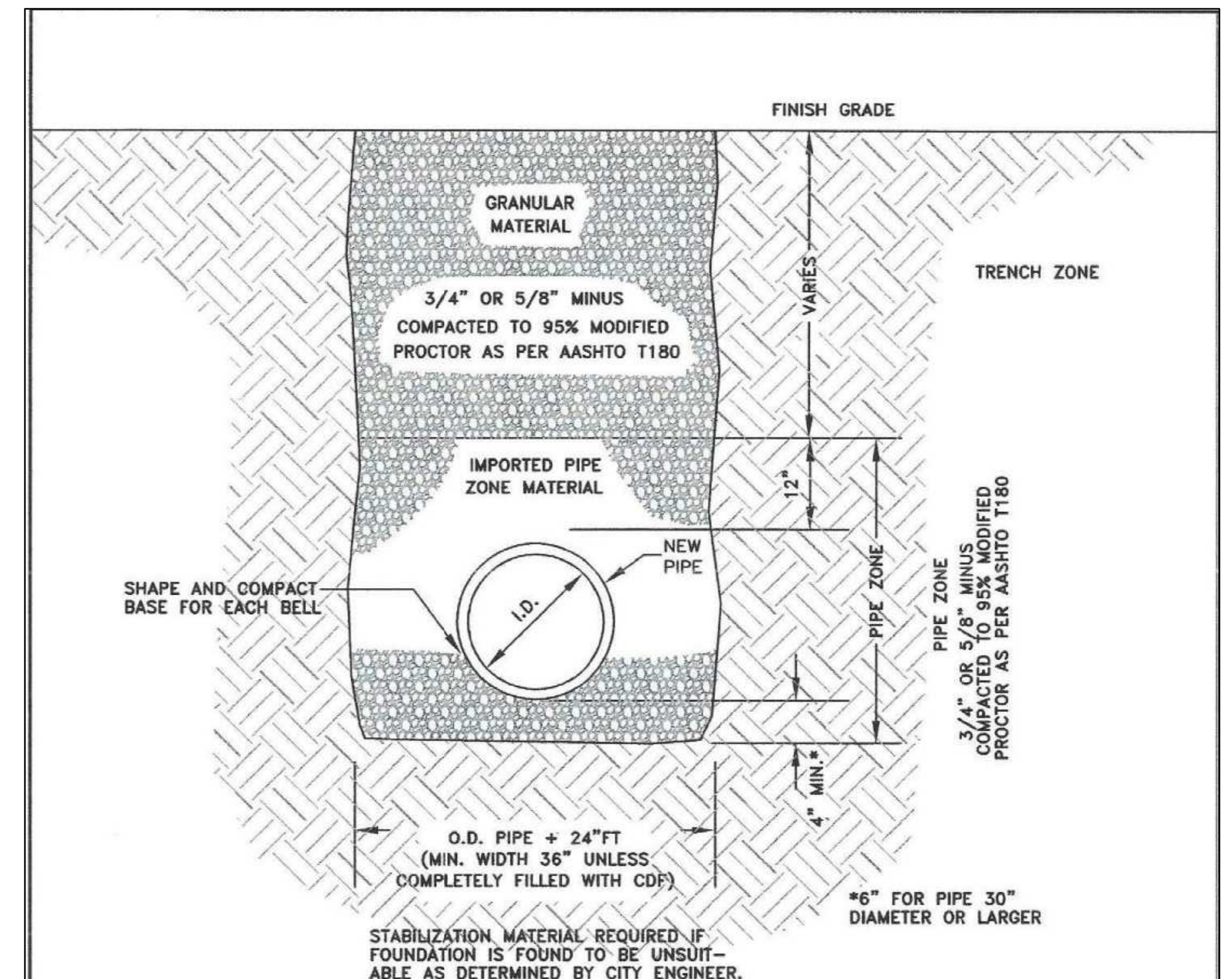
1. MONUMENT CASE SHALL BE D&L FOUNDRY MODEL NO. K-6524 OR APPROVED EQUAL. SEE CITY STD #1-10 FOR CONCRETE COLLAR INSTALLATION AND CASE HEIGHT ADJUSTMENTS.
2. MONUMENT INSTALLATION TO BE COMPLETED BY A LICENSED SURVEYOR.
3. MONUMENT SHALL CONSIST OF A METAL CAP ON A 5/8" DIAMETER BY 24" LONG DEFORMED STEEL BAR SET IN CONCRETE. THE CAP SHALL BE A METAL INSULATED REBAR CAP WITH 2" MINIMUM DIAMETER, BERNTSON ITEM #QSD5200, #RBD5325 OR APPROVED EQUAL. THE CAP SHALL BE STAMPED WITH THE PLS NUMBER AND PUNCHED TO SHOW THE TRUE POINT. A METAL CAP SET IN CONCRETE MAY BE USED WITH WRITTEN APPROVAL FROM THE CITY SURVEYOR.
4. IN NO CIRCUMSTANCE SHALL THE CONCRETE USED TO INSTALL THE CASE OR THE INTERNAL MONUMENT FILL THE BOTTOM OF THE MONUMENT CASE AND PREVENT DRAINAGE OF THE CASE.
5. MONUMENTS SHALL BE SET AT ALL STREET CENTERLINE PC, PT, AND INTERSECTION POINTS. MONUMENTS SHALL BE SET AT THE CENTER POINT OF STANDARD CUL-DE-SACS. ADDITIONAL MONUMENTS SHALL BE SET IN OFFSET CUL-DE-SACS AT THE INTERSECTION OF THE STREET CENTERLINE WITH THE OFFSET CENTERLINE.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STREET MONUMENT WITH FRAME & COVER

City Engineer — Date 12/19/17 — DWG. NO. 1-3

...\Current Stds\1-General Standards\Street Monument.dwg


FINISH GRADE
GRANULAR MATERIAL
3/4" OR 5/8" MINUS COMPACTED TO 95% MODIFIED PROCTOR AS PER AASHTO T180
TRENCH ZONE
VARIES
IMPORTED PIPE ZONE MATERIAL
12"
NEW PIPE
I.D.
SHAPE AND COMPACT BASE FOR EACH BELL
PIPE ZONE
PIPE ZONE 3/4" OR 5/8" MINUS COMPACTED TO 95% MODIFIED PROCTOR AS PER AASHTO T180
4" MIN.*
O.D. PIPE + 24"FT (MIN. WIDTH 36" UNLESS COMPLETELY FILLED WITH CDF)
*6" FOR PIPE 30" DIAMETER OR LARGER
STABILIZATION MATERIAL REQUIRED IF FOUNDATION IS FOUND TO BE UNSUITABLE AS DETERMINED BY CITY ENGINEER.

CLASS 'D' BACKFILL SHALL BE USED IN AREAS WHERE ASPHALT PAVEMENT, CONCRETE CURB, SIDEWALK, DRIVEWAY, GRAVEL SURFACING IS ANTICIPATED.

NOTES:

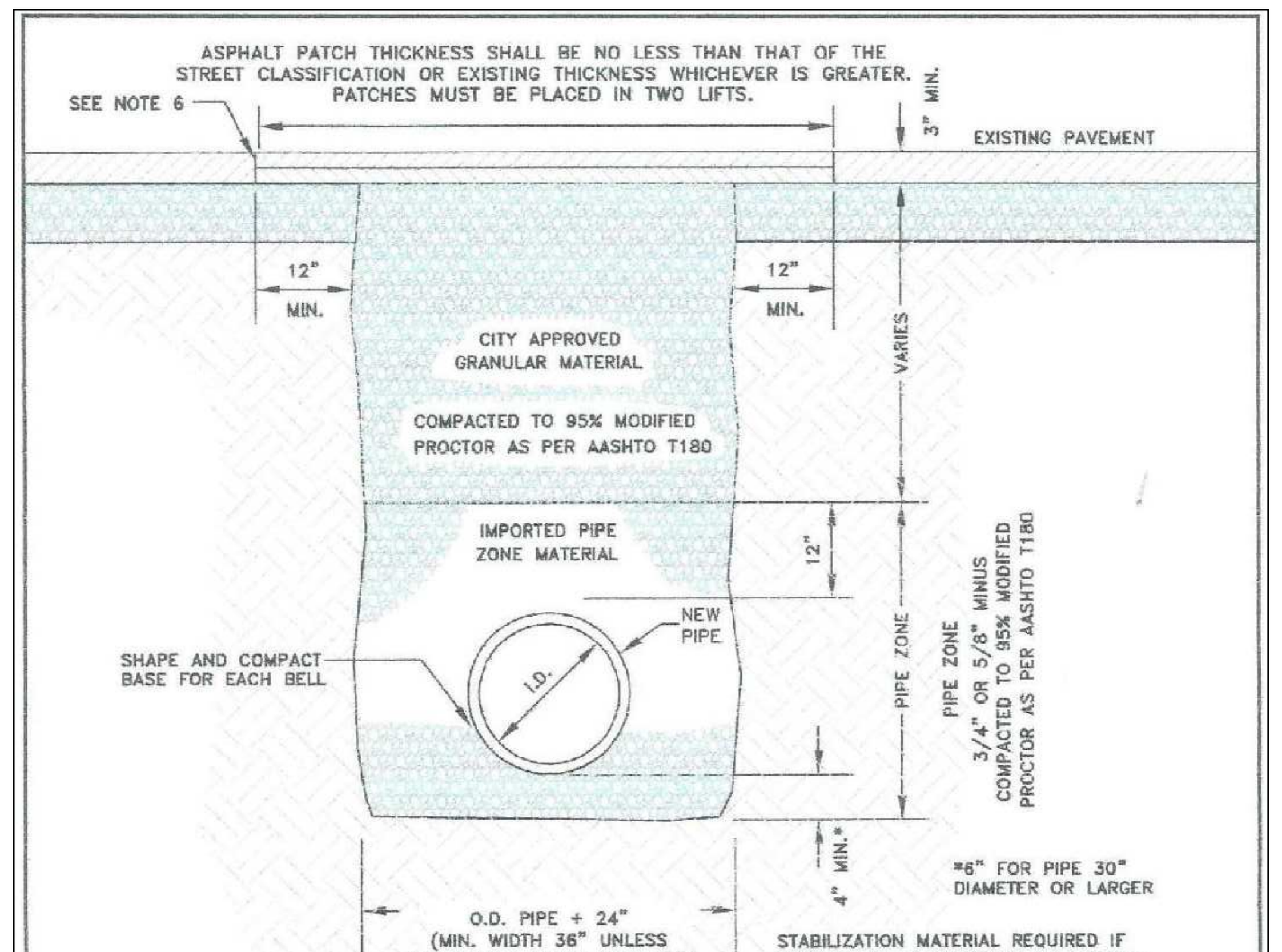
1. CONTRACTOR SHALL COMPLY WITH THE MOST CURRENT OSHA REQUIREMENTS FOR EXCAVATIONS.
2. CLASS 'D' BACKFILL SHALL COMPLY WITH REQUIREMENTS OF THE CITY'S STANDARDS CONSTRUCTION SPECIFICATIONS.
3. TRENCH MATERIAL SHALL BE PLACED IN MAX. OF 6" LIFTS.
4. IN EXISTING RIGHT-OF-WAY TRENCH EXCAVATION SHALL NOT BE MORE THAN 100 FEET AHEAD OF THE PIPE LAYING OPERATION.
5. TRENCHES ARE TO BE BACKFILLED AT THE END OF EACH DAY.
6. ANY ALTERATIONS TO THIS STANDARD MUST HAVE WRITTEN APPROVAL BY CITY ENGINEER.
7. SPECIFICATIONS REGARDING PIPE BEDDING AND TRENCH BACKFILL WILL FOLLOW ISPWC SECTION 305 AND 306, UNLESS ABOVE STANDARDS ARE MORE RESTRICTIVE.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

BACKFILL CLASS 'D'

APPROVED FOR PUBLICATION — City Engineer — Date 10/21/10 — DWG. NO. 1-6

\Standards\2010-Standards\1-General\BackFill_ClassD.dwg


ASPHALT PATCH THICKNESS SHALL BE NO LESS THAN THAT OF THE STREET CLASSIFICATION OR EXISTING THICKNESS WHICHEVER IS GREATER. PATCHES MUST BE PLACED IN TWO LIFTS.
SEE NOTE 6
3" MIN.
EXISTING PAVEMENT
12" MIN.
12" MIN.
CITY APPROVED GRANULAR MATERIAL
COMPACTED TO 95% MODIFIED PROCTOR AS PER AASHTO T180
VARIES
IMPORTED PIPE ZONE MATERIAL
12"
NEW PIPE
I.D.
SHAPE AND COMPACT BASE FOR EACH BELL
PIPE ZONE
3/4" OR 5/8" MINUS COMPACTED TO 95% MODIFIED PROCTOR AS PER AASHTO T180
4" MIN.*
*6" FOR PIPE 30" DIAMETER OR LARGER
O.D. PIPE + 24" (MIN. WIDTH 36" UNLESS COMPLETELY FILLED WITH CDF)
STABILIZATION MATERIAL REQUIRED IF FOUNDATION IS FOUND TO BE UNSUITABLE AS DETERMINED BY CITY ENGINEER.

NOTES:

1. CONTRACTOR SHALL COMPLY WITH THE MOST CURRENT OSHA REQUIREMENTS FOR EXCAVATIONS.
2. ALL TRENCHES EXCAVATED WITHIN EXISTING PAVED STREETS SHALL BE BACKFILLED AND SURFACED THE SAME DAY WITH A 2" THICK COMPACTED COLD MIX ASPHALT PATCH (SMOOTH) – TO BE REPLACED WITH THE CITY'S STANDARD 4" HOT MIX ASPHALT SURFACING AS SOON AS SCHEDULING ALLOWS; UNLESS SPECIFICALLY APPROVED OTHERWISE BY THE CITY ENGINEER.
3. THE NEW ASPHALT PATCH SHALL MATCH THE EXISTING PAVEMENT GRADE. ACROSS THE WIDTH OF THE TRENCH THE NEW SURFACE SHALL BE FLUSH OR UP TO 1/4" ABOVE THE EXISTING PAVEMENT GRADE.
4. EXISTING PAVEMENT SHALL BE SAWCUT FULL DEPTH AND IN CONTINUOUS, STRAIGHT LINES. BROKEN EDGES WILL NOT BE ALLOWED. PAVEMENT CUTS SHALL BE 'TACKED' IMMEDIATELY PRIOR TO INSTALLATION OF THE HOT MIX PATCH.
5. AFTER BACKFILLING TRENCH REMOVE ALL BROKEN OR LOOSE ASPHALT OR CONCRETE BEYOND IN THE INITIAL TRENCH.
6. PATCH CANNOT OVERLAP ANOTHER PARALLEL PATCH AND CANNOT LEAVE EXISTING ASPHALT LESS THAN 36" WIDE.
7. JOINTS TO BE TACKED AND SANDED WITH EMULSIFIED TACK.
8. SPECIFICATIONS REGARDING PIPE BEDDING AND TRENCH BACKFILL WILL FOLLOW ISPWC SECTION 305 AND 306, UNLESS ABOVE STANDARDS ARE MORE RESTRICTIVE.

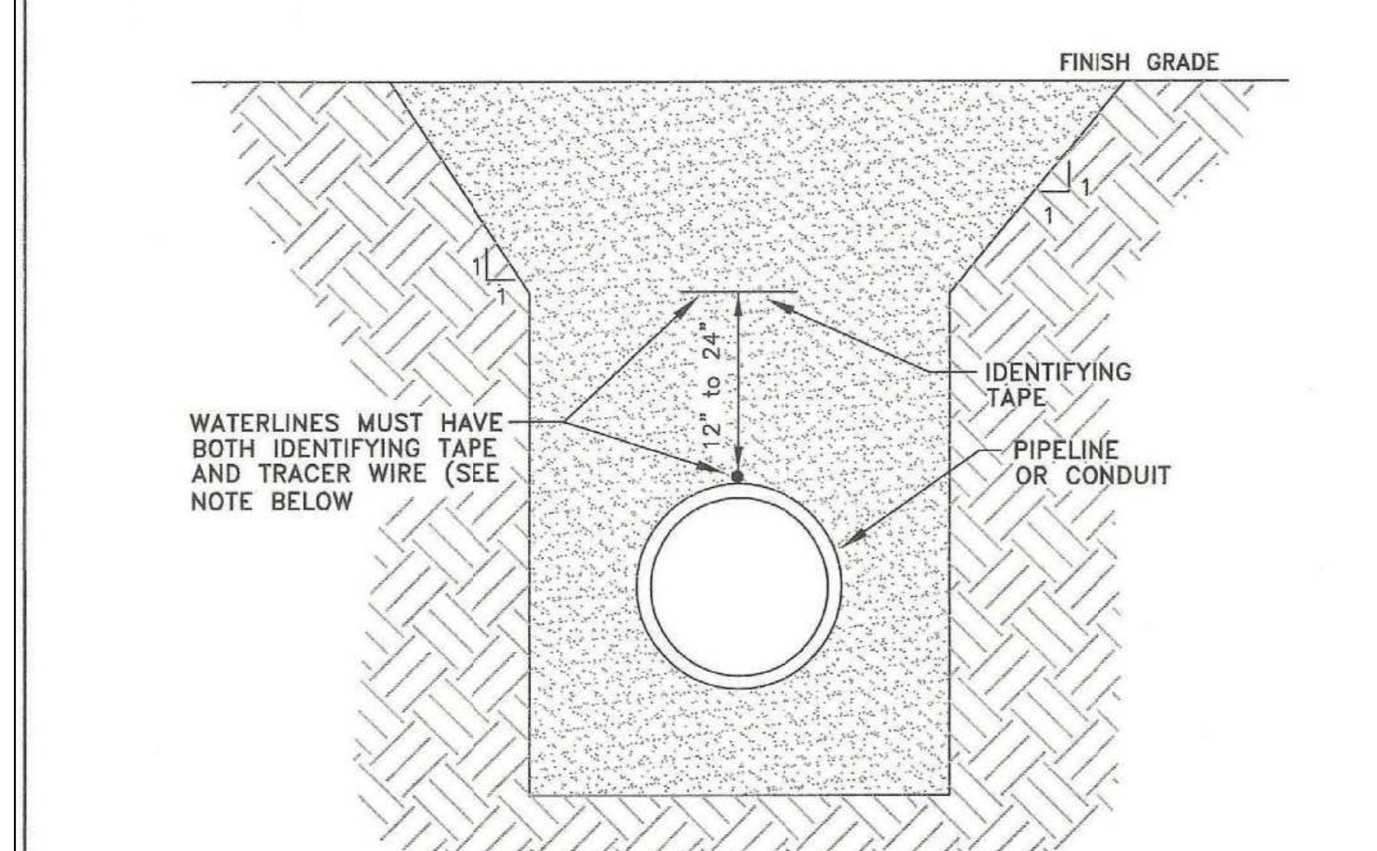
CLASS 'F' BACKFILL SHALL BE USED IN AREAS WHERE ASPHALT PAVEMENT CONCRETE CURB, SIDEWALK, DRIVEWAY, GRAVEL SURFACING WILL BE REPLACED.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

BACKFILL- CLASS 'F'

APPROVED FOR PUBLICATION — City Engineer — Date 2-5-09 — DWG. NO. 1-7

M:\Standards\2008 - Standards\1_General\BackFill_ClassF.dwg



TYPE	COLOR	SIZE	DETECTABLE	IMPRINT
WATER	BLUE	3"	NO	CAUTION BURIED WATER LINE BELOW

NO. 12 AWG. COPPER TRACER WIRE INSULATED WITH 30 MIL OF HIGH DENSITY POLYETHYLENE (HDPE) CLASSIFIED AS HIGH MOLECULAR WEIGHT POLYETHYLENE (HMWPE) IN 500 FT REELS. WIRE SHALL BE ATTACHED TO WATERLINE AT INTERVALS NOT TO EXCEED 15 FT SEPARATION.

ALL SPLICES SHALL BE 3M DIRECT BURY SPLICE KIT DBR/Y-6 AND CONTRACTOR SHALL CONDUCT A CONDUCTIVITY TEST ON ALL LOCATING WIRE SPLICES.

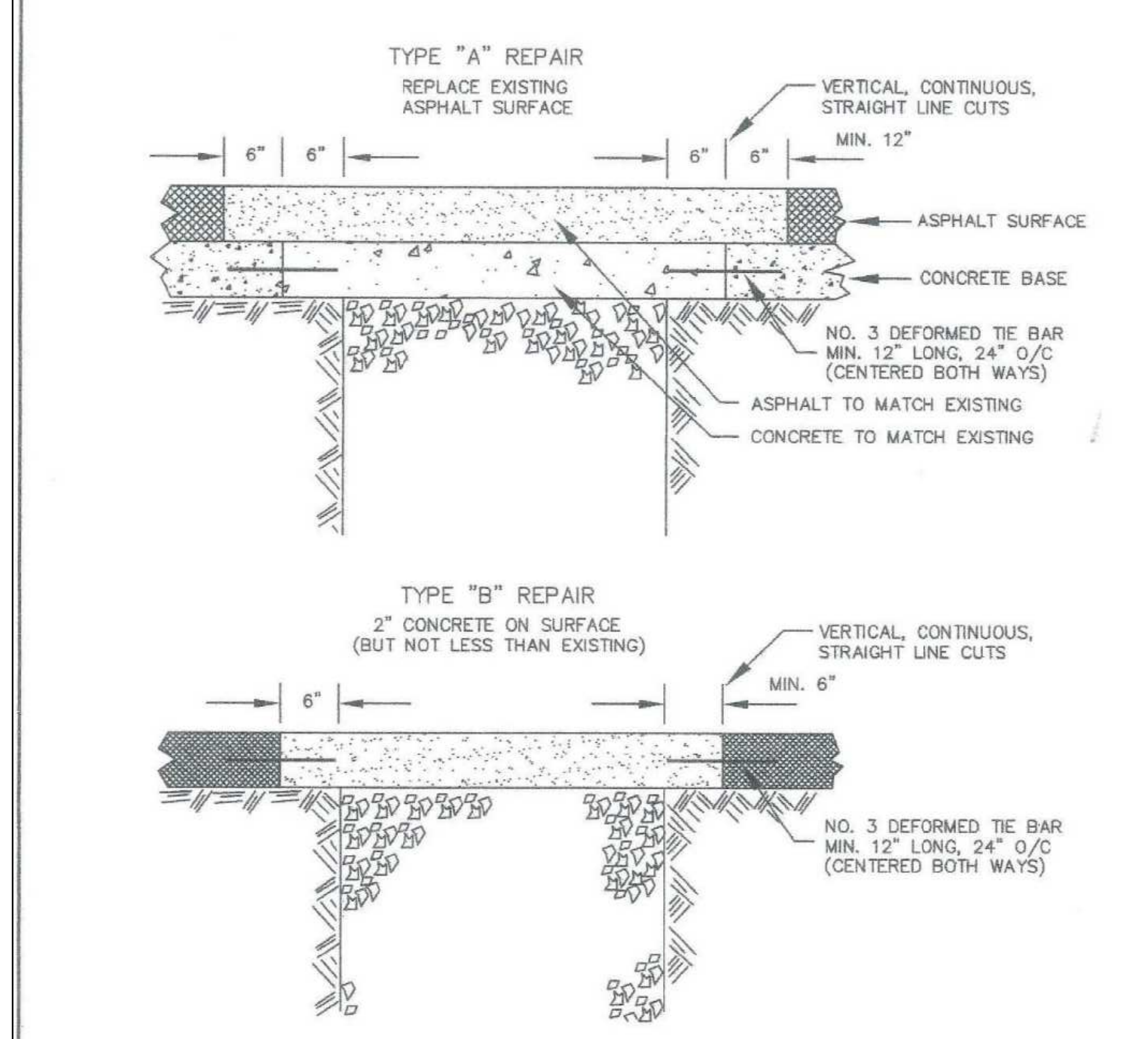
TYPE	COLOR	SIZE	DETECTABLE	IMPRINT
STORM SEWER	GREEN	3"	NO	CAUTION BURIED STORM SEWER LINE BELOW
SANITARY SEWER	GREEN	3"	NO	CAUTION BURIED SEWER LINE BELOW
GAS	YELLOW	3"	NO	CAUTION BURIED GAS LINE BELOW
CABLE	ORANGE	3"	NO	CAUTION BURIED CABLE LINE BELOW
ELECTRICAL	RED	3"	NO	CAUTION BURIED ELECTRIC LINE BELOW

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

IDENTIFYING TAPE DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date 2/1/16 — DWG. NO. 1-8

...\Current Stds\1-General\Identifying Tape.dwg


TYPE "A" REPAIR
REPLACE EXISTING ASPHALT SURFACE
VERTICAL, CONTINUOUS, STRAIGHT LINE CUTS
MIN. 12"
6"
6"
6"
6"
ASPHALT SURFACE
CONCRETE BASE
NO. 3 DEFORMED TIE BAR MIN. 12" LONG, 24" O/C (CENTERED BOTH WAYS)
ASPHALT TO MATCH EXISTING
CONCRETE TO MATCH EXISTING
TYPE "B" REPAIR
2" CONCRETE ON SURFACE (BUT NOT LESS THAN EXISTING)
VERTICAL, CONTINUOUS, STRAIGHT LINE CUTS
MIN. 6"
6"
NO. 3 DEFORMED TIE BAR MIN. 12" LONG, 24" O/C (CENTERED BOTH WAYS)

NOTE:

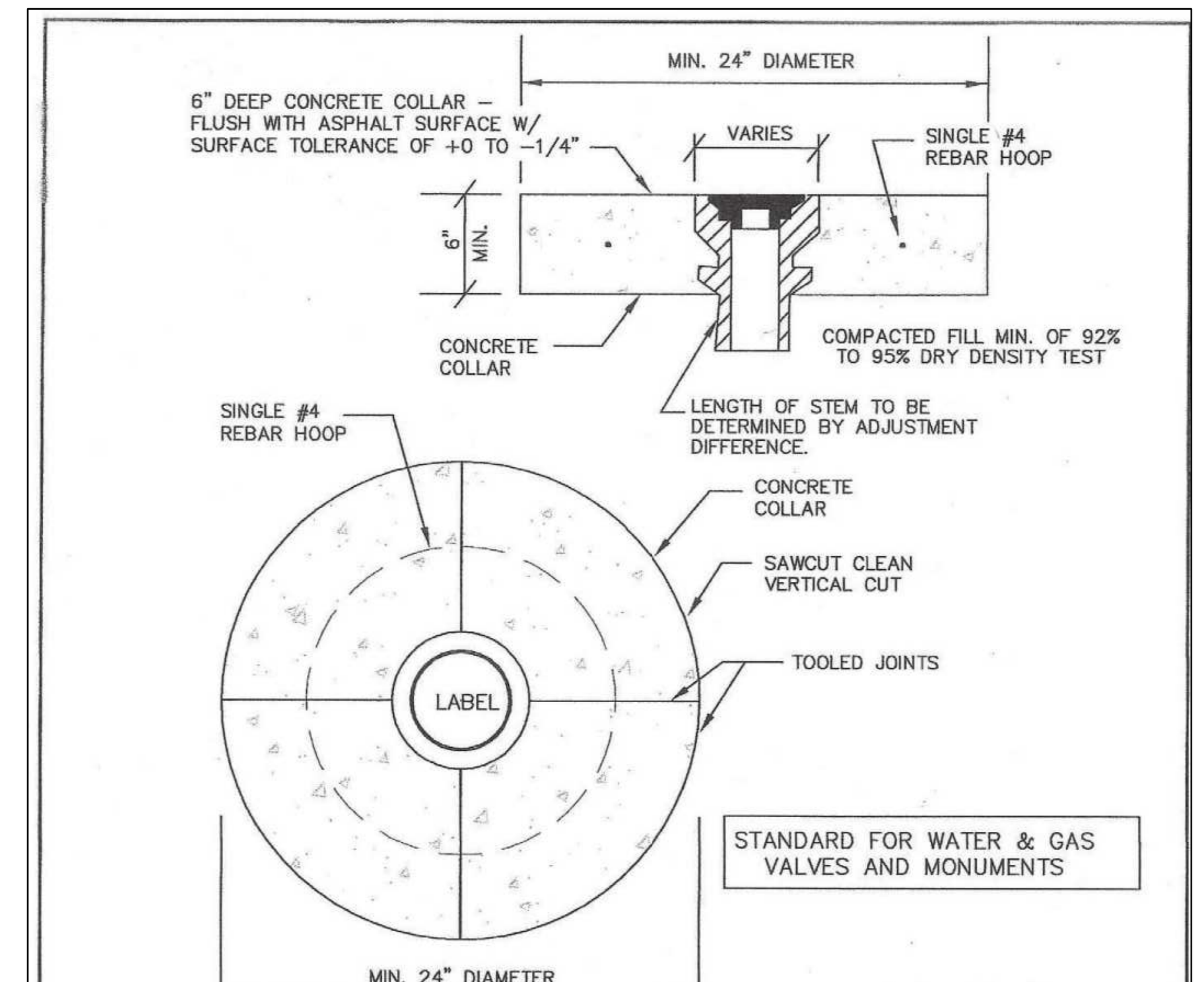
1. COMPLETED PATCH SHALL BE FLUSH AND SMOOTH WITH EXISTING BITUMINOUS SURFACE.
2. CONCRETE PAVEMENT SHALL BE SPECIFIED BY CITY ENGINEER.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

CONCRETE STREET REPAIR DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date 2-5-09 — DWG. NO. 1-9

M:\Standards\2008 - Standards\1_General\Concrete Street Repair.dwg


MIN. 24" DIAMETER
6" DEEP CONCRETE COLLAR – FLUSH WITH ASPHALT SURFACE W/ SURFACE TOLERANCE OF +0 TO –1/4"
VARIES
SINGLE #4 REBAR HOOP
6" MIN.
CONCRETE COLLAR
COMPACTED FILL MIN. OF 92% TO 95% DRY DENSITY TEST
LENGTH OF STEM TO BE DETERMINED BY ADJUSTMENT DIFFERENCE.
SINGLE #4 REBAR HOOP
CONCRETE COLLAR
SAWCUT CLEAN VERTICAL CUT
TOOLED JOINTS
LABEL
STANDARD FOR WATER & GAS VALVES AND MONUMENTS
MIN. 24" DIAMETER

NOTES:

1.) A CIRCULAR-SHAPED CONCRETE COLLAR IS REQUIRED ON ALL INSTALLATIONS; IN BOTH PAVED OR UNIMPROVED AREAS. INSTALL A 6" 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 WILL BE SEALED WITH CSSI OR APPROVED EQUAL; ALL TOP EDGES WILL BE TACKED AND SAND SEALED.
4.) UTILITY FRAMES AND LIDS ARE PREFERRED OUTSIDE OF WHEEL PATH, WHERE POSSIBLE.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WATER & GAS VALVES, AND MONUMENTS ADJUST UTILITIES

APPROVED FOR PUBLICATION — City Engineer — Date 12/19/17 — DWG. NO. 1-10

NO.	DATE	BY	FILENAME	REVISIONS
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REGISTERED PROFESSIONAL ENGINEER 10962 STATE OF IDAHO CHARLES R. FISKE

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4TH ST-WARNER/PARK AVE.
CITY DETAILS
STREET & CONCRETE

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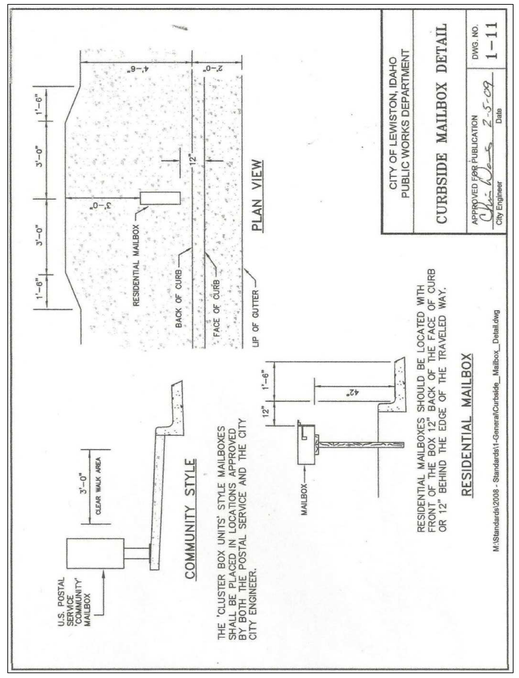
DESIGNED BY: CRF	
SCALE: 1" = 25'	
DATE: 10/12/20	
PROJECT NO.: 682	
SHEET 17 OF 24	

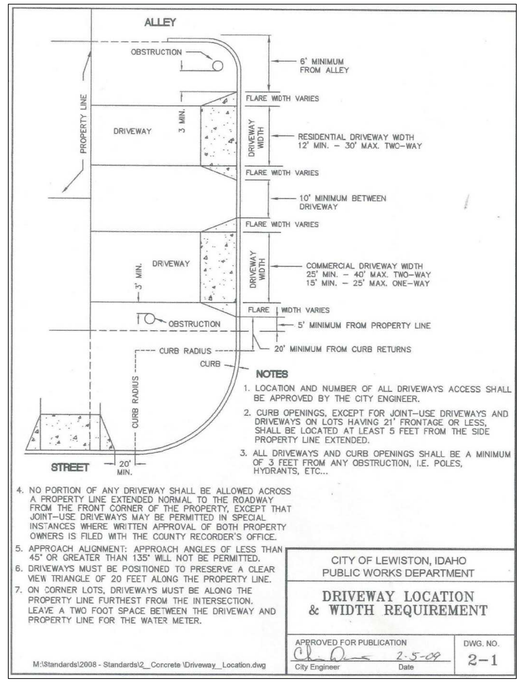


CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

CURBSIDE MAILBOX DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date: 2-5-09

DWG. NO. 1-11



NOTES

1. LOCATION AND NUMBER OF ALL DRIVEWAYS ACCESS SHALL BE APPROVED BY THE CITY ENGINEER.
2. CURB OPENINGS, EXCEPT FOR JOINT–USE DRIVEWAYS AND DRIVEWAYS ON LOTS HAVING 21' FRONTAGE OR LESS, SHALL BE LOCATED AT LEAST 5 FEET FROM THE SIDE PROPERTY LINE EXTENDED.
3. ALL DRIVEWAYS AND CURB OPENINGS SHALL BE A MINIMUM OF 3 FEET FROM ANY OBSTRUCTION, I.E. POLES, HYDRANTS, ETC...
4. NO PORTION OF ANY DRIVEWAY SHALL BE ALLOWED ACROSS A PROPERTY LINE EXTENDED NORMAL TO THE ROADWAY FROM THE FRONT CORNER OF THE PROPERTY, EXCEPT THAT JOINT–USE DRIVEWAYS MAY BE PERMITTED IN SPECIAL INSTANCES WHERE WRITTEN APPROVAL OF BOTH PROPERTY OWNERS IS FILED WITH THE COUNTY RECORDER'S OFFICE.
5. APPROACH ALIGNMENT: APPROACH ANGLES OF LESS THAN 45° OR GREATER THAN 135° WILL NOT BE PERMITTED.
6. DRIVEWAYS MUST BE POSITIONED TO PRESERVE A CLEAR VIEW TRIANGLE OF 20 FEET ALONG THE PROPERTY LINE.
7. ON CORNER LOTS, DRIVEWAYS MUST BE ALONG THE PROPERTY LINE FURTHEST FROM THE INTERSECTION. LEAVE A TWO FOOT SPACE BETWEEN THE DRIVEWAY AND PROPERTY LINE FOR THE WATER METER.

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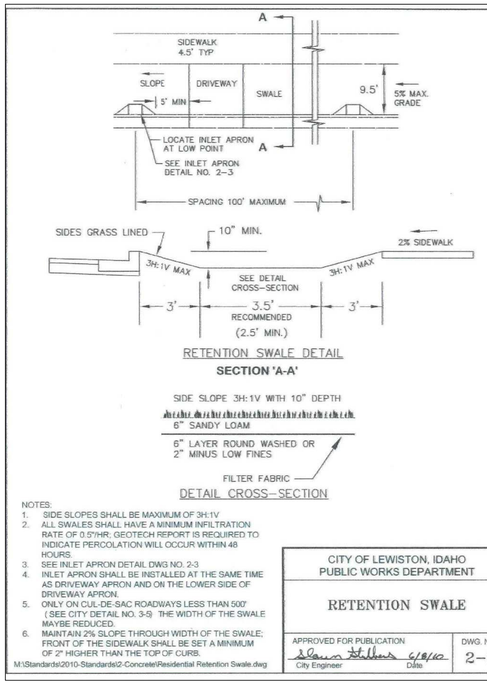
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

DRIVEWAY LOCATION & WIDTH REQUIREMENT

APPROVED FOR PUBLICATION — City Engineer — Date: 2-5-09

DWG. NO. 2-1



RETENTION SWALE DETAIL
SECTION 'A-A'

DETAIL CROSS–SECTION

NOTES:
1. SIDE SLOPES SHALL BE MAXIMUM OF 3H:1V
2. ALL SWALES SHALL HAVE A MINIMUM INFILTRATION RATE OF 0.5"/HR. GEOTECH REPORT IS REQUIRED TO INDICATE PERCOLATION WILL OCCUR WITHIN 48 HOURS.
3. SEE INLET APRON DETAIL DWG NO. 2-3
4. INLET APRON SHALL BE INSTALLED AT THE SAME TIME AS DRIVEWAY APRON AND ON THE LOWER SIDE OF DRIVEWAY APRON.
5. ONLY ON CUL-DE-SAC ROADWAYS LESS THAN 500' (SEE CITY DETAIL NO. 3-5) THE WIDTH OF THE SWALE MAYBE REDUCED.
6. MAINTAIN 2% SLOPE THROUGH WIDTH OF THE SWALE; FRONT OF THE SIDEWALK SHALL BE SET A MINIMUM OF 2" HIGHER THAN THE TOP OF CURB.

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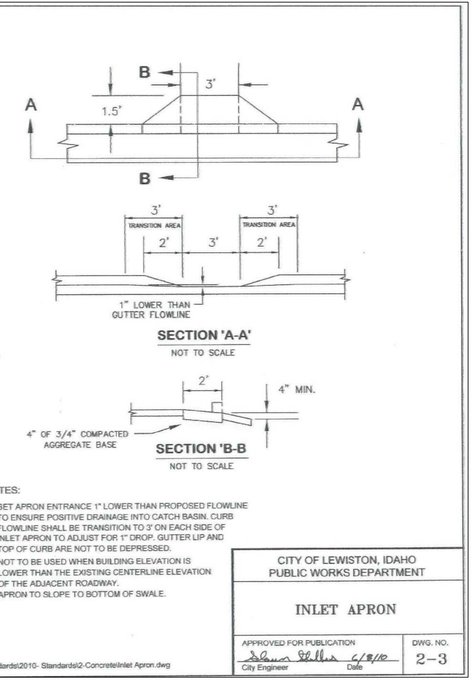
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

RETENTION SWALE

APPROVED FOR PUBLICATION — City Engineer — Date: 6/8/10

DWG. NO. 2-2



SECTION 'A-A'
NOT TO SCALE

SECTION 'B-B
NOT TO SCALE

NOTES:
1. SET APRON ENTRANCE 1" LOWER THAN PROPOSED FLOWLINE TO ENSURE POSITIVE DRAINAGE INTO CATCH BASIN. CURB FLOWLINE SHALL BE TRANSITION TO 3' ON EACH SIDE OF INLET APRON TO ADJUST FOR 1" DROP. GUTTER LIP AND TOP OF CURB ARE NOT TO BE DEPRESSED.
2. NOT TO BE USED WHEN BUILDING ELEVATION IS LOWER THAN THE EXISTING CENTERLINE ELEVATION OF THE ADJACENT ROADWAY.
3. APRON TO SLOPE TO BOTTOM OF SWALE.

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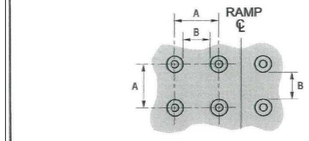
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

INLET APRON

APPROVED FOR PUBLICATION — City Engineer — Date: 6/8/10

DWG. NO. 2-3



	MIN.	MAX.
A	1.6"	2.4"
B	.65"	1.5"
C	50% -65% OF BASE DIA.	
D	.9"	1.4"

THIS PATTERN AREA SHALL BE YELLOW IN COLOR

Notes:
1. Detectable truncated-dome warning, 2 ft wide, must be provided for the full width of ramps and blended connections to mark the street edge and fully approved by current ADA requirements.
2. At least one corner of the detectable warning panel shall be coincident to the back of curb

\Standards\2010-Standards\2-Concrete\Detectable Dome.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

DETECTABLE WARNING FOR PEDESTRIAN ACCESS

APPROVED FOR PUBLICATION — City Engineer — Date: 9/1/10

DWG. NO. 2-5

GENERAL NOTES FOR ALL TYPES OF CURB AND GUTTER

1. SECURE A PERMIT FOR CONSTRUCTION, BEFORE BEGINNING CONSTRUCTION IN PUBLIC RIGHT–OF–WAY.
2. GRADE, ALIGNMENT AND CURB TYPE SHALL BE AS APPROVED BY THE CITY ENGINEER.
3. ALIGNMENT AND GRADE STAKED TO LIP OF GUTTER (LIP) SHALL BE ESTABLISHED OR APPROVED BY THE CITY ENGINEER.
4. THE TOLERANCE FOR FINISHED CURB AND GUTTER – MAX. VARIATION OF SURFACE FLATNESS: 1/4 INCH IN 10 FEET MAX. VARIATION FROM TRUE POSITION (DESIGN GRADE): 1/2 INCH
5. BASE MATERIAL SHALL BE 4" OF 3/4 OR 5/8 INCH MINUS CRUSHED AGGREGATE BASE MATERIAL COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY STANDARD PROCTOR AS PER AASHTO T99. ALL FILL OR BACKFILL AREAS SHALL BE PLACED IN 6" MAXIMUM LIFTS.
6. CONCRETE SHALL BE 3,000 PSI MINIMUM AT 28 DAYS, MAXIMUM WATER/CEMENT RATIO SHALL BE 0.5 (LB/LB), 5" MAX. SLUMP, AIR CONTENT (%) 6.5 ±1.5.
7. DUMMY JOINTS AT 10 FOOT INTERVALS AND AT CURB RADII, 3/4" TO 1" DEEP. CONSTRUCTION JOINTS LOCATIONS AS DIRECTED BY CITY ENGINEER. DIFFERENTIAL ELEVATION BETWEEN ADJACENT SECTIONS SHALL NOT EXCEED 1/4".
8. THE CONTRACTOR ARE REQUIRED BY THE PUBLIC WORKS DEPARTMENT TO MARK STUB–OUTS AND VALVES IN THE UNCURED CONCRETE.
9. THE CONTRACTOR OR OWNER SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT FOR INSPECTION AFTER THE FORMS ARE SET AND THE PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED NO LESS THAN 2 WORKING DAYS BEFORE PLACEMENT OF CONCRETE FOR A FINAL INSPECTION. FAILURE TO NOTIFY THE PUBLIC WORKS DEPARTMENT IS GROUNDS FOR REJECTION OF CURB AND GUTTER.
10. CONCRETE SURFACE TO HAVE A LIGHT BROOM FINISH PARALLEL WITH THE LENGTH OF THE CURB.
11. APPLY UNIFORM COAT OF REZ–SEAL OR APPROVED EQUIVALENT CURING COMPOUND TO EXPOSED CONCRETE IMMEDIATELY AFTER FINISHING..
12. ROLLED CURB AND GUTTER SHALL NOT BE USED:
    A. ON STREETS IN COMMERCIAL AND INDUSTRIAL ZONED AREAS.
    B. ON STREETS WITH LONGITUDINAL (LENGTHWISE) GRADES IN EXCESS OF 6%.
    C. ON ANY ARTERIAL OR COLLECTOR
    D. WITHOUT PRIOR APPROVAL OF THE CITY ENGINEER.
    E. WHEN SIDEWALK IS LOCATED AT THE BACK OF CURB.

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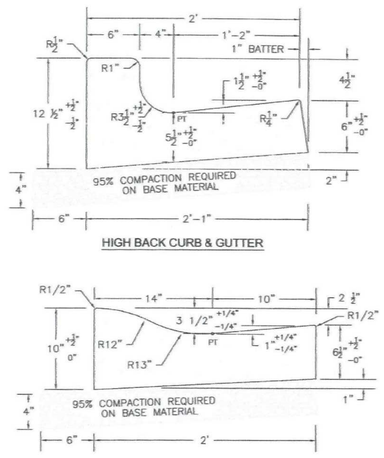
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

GENERAL NOTES FOR ALL TYPES OF CURB AND GUTTER

APPROVED FOR PUBLICATION — City Engineer — Date: 11/23/10

DWG. NO. 2-6



ALL TOLERANCES ARE ±1/4" UNLESS OTHERWISE NOTED

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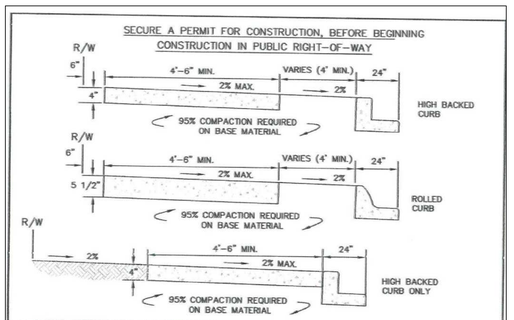
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

HIGH BACK CURB & GUTTER
ROLLED CURB & GUTTER

APPROVED FOR PUBLICATION — City Engineer — Date: 2-5-09

DWG. NO. 2-7



GENERAL NOTES FOR ALL SIDEWALK:

1. LINE AND GRADE STAKED T.S., TOP OF SIDEWALK, B.S., BACK OF SIDEWALK.
2. GRADE AND ALIGNMENT TO BE APPROVED BY THE CITY ENGINEER.
3. THE TOLERANCE FOR FINISHED SIDEWALK – MAX. VARIATION OF SURFACE FLATNESS: 1/4 INCH IN 10 FEET MAX. VARIATION FROM TRUE POSITION (DESIGN GRADE): 1/2 INCH NO PONDING IS ALLOWED ON SIDEWALKS, STEPS OR PEDESTRIAN RAMPS.
4. BASE MATERIAL SHALL BE 4" OF 3/4" MINUS OR 5/8" MINUS CRUSHED AGGREGATE BASE MATERIAL COMPACTED TO 95% MAX. DENSITY AS DETERMINED BY STANDARD PROCTOR AS PER AASHTO T99. ALL FILLS OR BACKFILL AREAS SHALL BE PLACED IN 6" MAX. LIFTS.
5. DUMMY JOINTS SHALL BE PLACED AT 5' INTERVALS, 3/4" TO 1" DEEP.
6. CONCRETE SHALL BE 3,000 PSI MIN. AT 28 DAYS, MAX. WATER/CEMENT RATIO SHALL BE RATIO SHALL BE 0.5 (LB.LB), 5" MAX. SLUMP, AIR CONTENT (%) 6.5 ±1.5.
7. THE CONTRACTOR OR OWNER SHALL NOTIFY THE PUBLIC WORKS DEPT. FOR INSPECTION OF BASE MATERIAL AFTER FORMS ARE SET AND THE PUBLIC WORKS DEPT. WILL BE NOTIFIED NO LESS THAN 2 WORKING DAYS BEFORE PLACEMENT OF CONCRETE, FOR FINAL INSPECTION.
8. CONCRETE SURFACE TO HAVE A LIGHT BROOM FINISH PERPENDICULAR TO THE LENGTH OF SIDEWALK.
9. APPLY UNIFORM COAT OF REZ–SEAL OR APPROVED EQUIVALENT CURING COMPOUND TO EXPOSED CONCRETE IMMEDIATELY AFTER FINISHING.
10. NAME OF CONTRACTOR AND YEAR TO BE STAMPED AT EACH END OF WORK AND AT INTERVALS OF 300 FT.
11. CONCRETE SURFACE SHALL BE FREE OF SURFACE BLEMISHES OR VOIDS GREATER THAN 1/4". JOINTS AND EDGES SHALL BE CLEAN AND FREE OF EXCESS SPALLING OR VOIDS.
12. A 6" STRIP TO BE LOCATED BETWEEN RIGHT–OF–WAY LINE AND SIDEWALK FOR PLACEMENT OF PROPERTY PINS WHEN PLANTING STRIP OR REJENTION SWALES ARE PLACED BEHIND CURB AND GUTTER.

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CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

CONCRETE SIDEWALK

APPROVED FOR PUBLICATION — City Engineer — Date: 11/23/10

DWG. NO. 2-8

NO.	DATE	BY	REVISIONS	FILENAME
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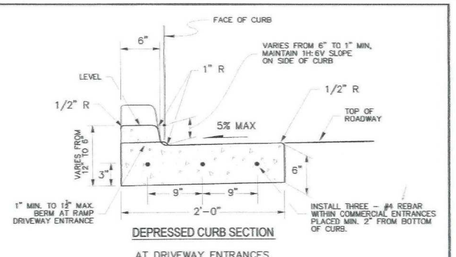
CITY DETAILS
STREET & CONCRETE

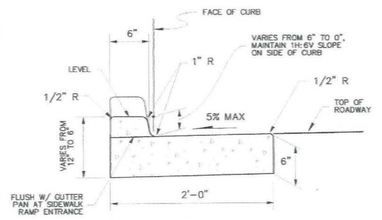
DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY: CRF	
SCALE: 1" = 25'	
DATE: 10/12/20	
PROJECT NO.: 682	

SHEET 18 OF 24



DEPRESSED CURB SECTION

AT DRIVEWAY ENTRANCES



DEPRESSED CURB SECTION

AT SIDEWALK RAMPS

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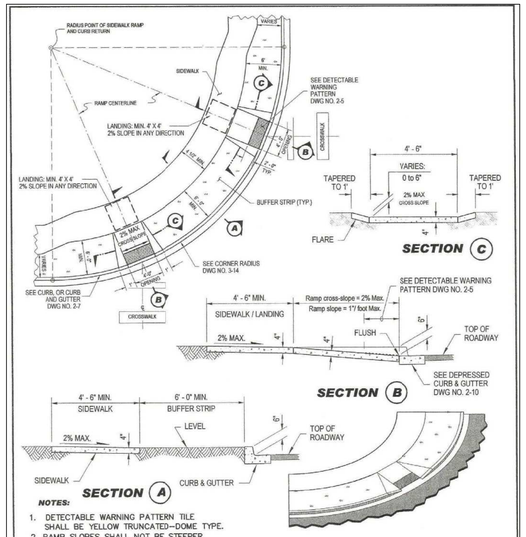
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

DEPRESSED CURB SECTION

APPROVED FOR PUBLICATION — City Engineer — Date: 3-9-00

DWG. NO. 2-10



NOTES:

1. DETECTABLE WARNING PATTERN TILE SHALL BE YELLOW TRUNCATED--DOME TYPE.
2. RAMP SLOPES SHALL NOT BE STEEPER THAN 12H:1V.
3. A 4' x 4' LANDING AT THE TOP OF THE RAMP WITH 2% SLOPE IN ALL DIRECTIONS AND A 4' X 4' CLEAR SPACE WITHIN THE CROSSWALK AREA.
4. PLACEMENT OF DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS WITHIN/ OR FRONT OF RAMP OR LANDING IS PROHIBITED.
5. THIS RAMP SHALL BE USED WITH HIGH BACK AND ROLLED CURB.

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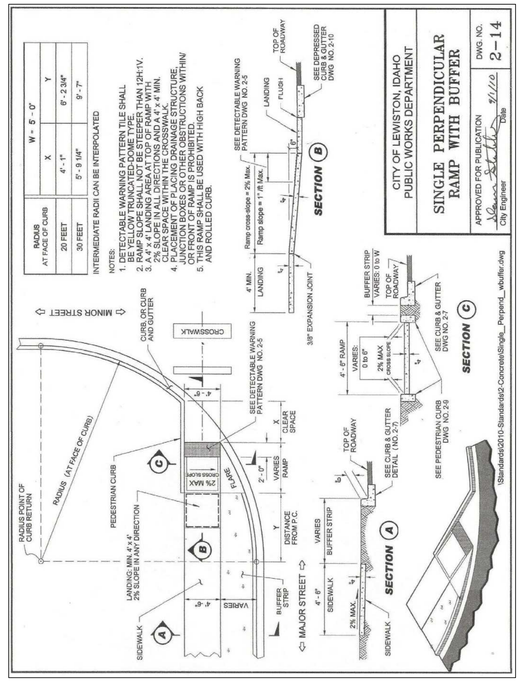
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

SIDEWALK RAMP TYPE 3

APPROVED FOR PUBLICATION — City Engineer — Date: 7/1/10

DWG. NO. 2-13



CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

SINGLE PERPENDICULAR RAMP WITH BUFFER

APPROVED FOR PUBLICATION — City Engineer — Date: 7/1/10

DWG. NO. 2-14

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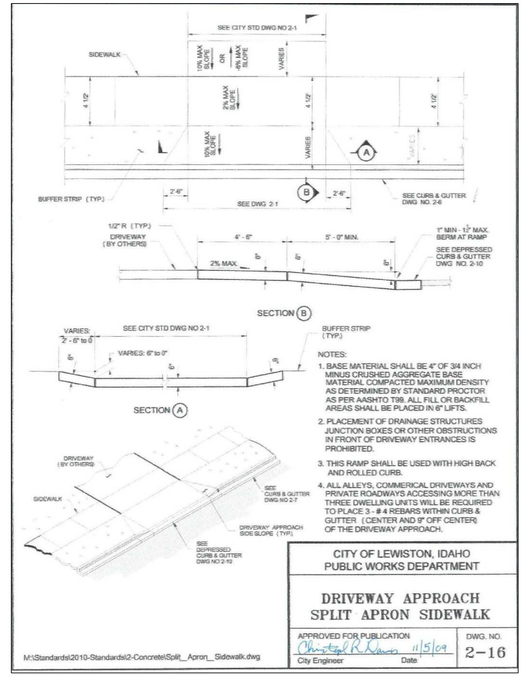

NOTES:

1. BASE MATERIAL SHALL BE 4" OF 3/4 INCH MINUS CRUSHED AGGREGATE BASE MATERIAL COMPACTED MAXIMUM DENSITY AS DETERMINED BY STANDARD PROCTOR AS PER AASHTO T99. ALL FILL OR BACKFILL AREAS SHALL BE PLACED IN 6" LIFTS.
2. PLACEMENT OF DRAINAGE STRUCTURES JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF DRIVEWAY ENTRANCES IS PROHIBITED.
3. THIS RAMP SHALL BE USED WITH HIGH BACK AND ROLLED CURB.
4. ALL ALLEYS, COMMERCIAL DRIVEWAYS AND PRIVATE ROADWAYS ACCESSING MORE THAN THREE DWELLING UNITS WILL BE REQUIRED TO PLACE 3- # 4 REBARS WITHIN CURB & GUTTER. (CENTER AND 8" OFF CENTER) OF THE DRIVEWAY APPROACH.

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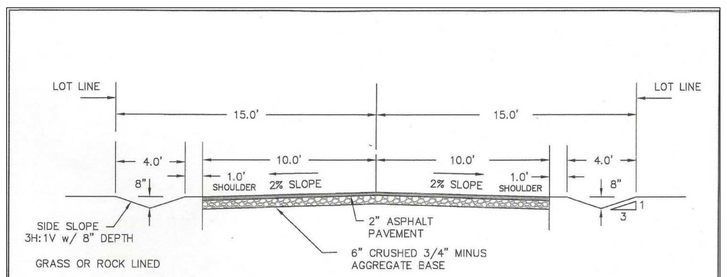
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

DRIVEWAY APPROACH SPLIT APRON SIDEWALK

APPROVED FOR PUBLICATION — City Engineer — Date: 11/5/09

DWG. NO. 2-16



NOTES:

1. MUTUAL 30' COMMON ACCESS EASEMENT IS REQUIRED.
2. 11% GRADE MAX.
3. NO CURVES ARE ALLOWED BY CITY ORDINANCE
4. NO CURB AND GUTTER NEEDED – OPTIONAL
5. 10' TRAVEL LANES
6. NO PARKING LANES
7. NO SIDEWALK REQUIREMENT – OPTIONAL
8. A SHARED DRIVEWAY WHICH IS NOT LOOPED MUST MEET THE FIRE DEPT. TURNAROUND CRITERIA.

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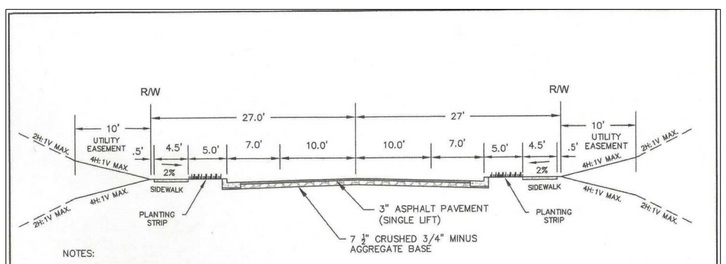
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

PRIVATE SHARED DRIVEWAY
30' COMMON ACCESS EASEMENT
TWO 10' TRAVEL LANES

APPROVED FOR PUBLICATION — City Engineer — Date: 3/9/17

DWG. NO. 3-1



NOTES:

1. 54' RIGHT OF WAY WIDTH
2. 11% GRADE MAX
3. 200' CENTERLINE RADIUS (MIN.) – SMALLER RADIUS MAY BE ALLOWED IF CURVE IS SUPERELEVATED (REFER TO AASHTO)
4. INSTALL HIGH BACK CURB; ROLLED CURB ONLY WITH WRITTEN APPROVAL OF CITY ENGINEER.
5. THE PLANTING STRIP SHALL BE MAINTAINED BY THE ADJACENT PROPERTY OWNERS.
6. THIS X-SECTION CAN BE USED FOR CUL-DE-SACS LONGER THAN 500 FT BUT LESS THAN 1200 FT.
7. CITY ENGINEER MAY REQUIRE SOIL TEST AND/OR GEOTECHNICAL ENGINEERING EVALUATION TO VERIFY LOAD BEARING CAPACITY OF SUBGRADE.
8. ADD 10' OF PAVEMENT WIDTH & RIGHT-OF-WAY WIDTH (5' EACH SIDE OF CENTERLINE WHEN BIKE LANES ARE REQUIRED)
9. TRAFFIC CALMING AND ENTRANCE FEATURES SHALL BE EVALUATED ON A CASE BY CASE BASIS; FINAL APPROVAL SHALL BE BY CITY ENGINEER.
10. ASPHALT PAVEMENT MAYBE WATER TESTED FOR PROPER DRAINAGE PRIOR TO FINAL APPROVAL.
11. CITY ENGINEER MAY REQUIRE CORING OF THE ASPHALT PAVEMENT TO VERIFY PAVEMENT THICKNESS OR DENSITY.
12. ANY VARIATION TO PROPOSED ROAD CROSS-SECTION MUST HAVE WRITTEN APPROVAL FROM CITY ENGINEER.
13. ALL TREE AND UTILITY PLACEMENT MUST MEET DWG NO. 1-1.
14. A 0.5' STRIP TO BE LOCATED BEHIND THE SIDEWALK FOR PLACEMENT OF PROPERTY PINS.

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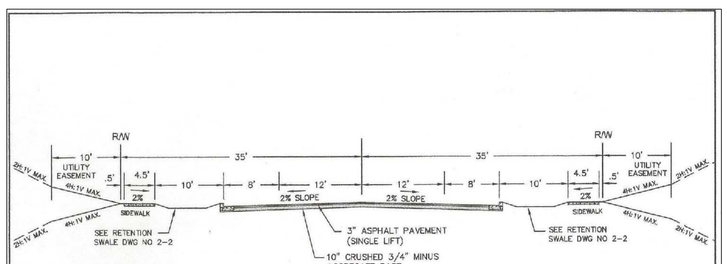
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

TYPICAL
LOCAL RESIDENTIAL STREET

APPROVED FOR PUBLICATION — City Engineer — Date: 2-17-09

DWG. NO. 3-4



NOTES:

1. 70' RIGHT OF WAY WIDTH
2. 5% GRADE MAX.
3. 200' CENTERLINE RADIUS (MIN.) SMALLER RADIUS MAY BE ALLOWED IF CURVE IS SUPERELEVATED – REFER TO AASHTO MANUAL.
4. HIGH BACK CURB AND GUTTER ONLY
5. CITY ENGINEER MAY REQUIRE SOIL TEXT AND/OR GEOTECHNICAL ENGINEERING EVALUATION TO VERIFY LOAD BEARING CAPACITY OF SUBGRADE.
6. TRAFFIC CALMING AND ENTRANCE FEATURES SHALL BE EVALUATED ON A CASE BY CASE BASIS; FINAL APPROVAL SHALL BE BY CITY ENGINEER.
7. ADD 10' OF PAVEMENT WIDTH & RIGHT-OF-WAY WIDTH (5' EACH SIDE OF CENTERLINE WHEN BIKE LANES ARE REQUIRED)
8. ASPHALT PAVEMENT MAYBE WATER TESTED FOR PROPER DRAINAGE PRIOR TO FINAL APPROVAL.
9. CITY ENGINEER MAY REQUIRE CORING OF THE ASPHALT PAVEMENT TO VERIFY PAVEMENT THICKNESS OR DENSITY.
10. ANY VARIATION TO PROPOSED ROAD CROSS-SECTION MUST HAVE WRITTEN APPROVAL FROM CITY ENGINEER.
11. ALL TREE AND UTILITY PLACEMENT MUST MEET DWG NO. 1-1.
12. A 0.5' STRIP TO BE LOCATED BEHIND THE SIDEWALK FOR PLACEMENT OF PROPERTY PINS.

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CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

RESIDENTIAL COLLECTOR
W/ INFILTRATION DRAINAGE

APPROVED FOR PUBLICATION — City Engineer — Date: 2-17-09

DWG. NO. 3-8

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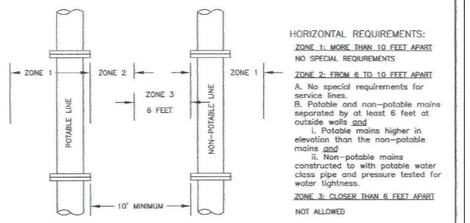
PROJECT NO.:	682

SHEET 19 OF 24



HORIZONTAL REQUIREMENTS:

ZONE 1: MORE THAN 10 FEET APART

NO SPECIAL REQUIREMENTS

ZONE 2: FROM 6 TO 10 FEET APART

A. No special requirements for service lines.
B. Potable and non-potable mains separated by at least 6 feet at outside walls and
   i. Potable mains higher in elevation than the non-potable mains and
   ii. Non-potable mains constructed to with potable water class pipe and pressure tested for water tightness.

ZONE 3: CLOSER THAN 6 FEET APART

NOT ALLOWED

VERTICAL REQUIREMENTS:

ZONE 1: POTABLE LINE 18" OVER NON-POTABLE LINE

Potable water and non-potable mains and service lines must be separated by at least 18 inches and
One full, uncut length of non-potable pipe must be centered on the crossing so that the joints are as far as possible from the crossing.

ZONE 2: POTABLE LINE < 18" OVER NON-POTABLE LINE

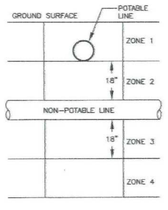
One full, uncut length of non-potable pipe must be centered on the crossing so that the joints are as far as possible from the non-potable line and either a or b
a) Non-potable line must be constructed to potable water pipe standards and pressure tested for water tightness for a horizontal distance of ten feet on both sides of the crossing.
b) Non-potable or potable line must be cased in a larger diameter carrier pipe for a horizontal distance of ten feet on both sides of the crossing, with no joints.

ZONE 3: POTABLE WATER < 18" UNDER NON-POTABLE LINE

Same requirements as Zone 2 except the non-potable line must also be supported above the crossing to prevent settling.

ZONE 4: POTABLE WATER 18" UNDER NON-POTABLE LINE

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



GENERAL NOTES:

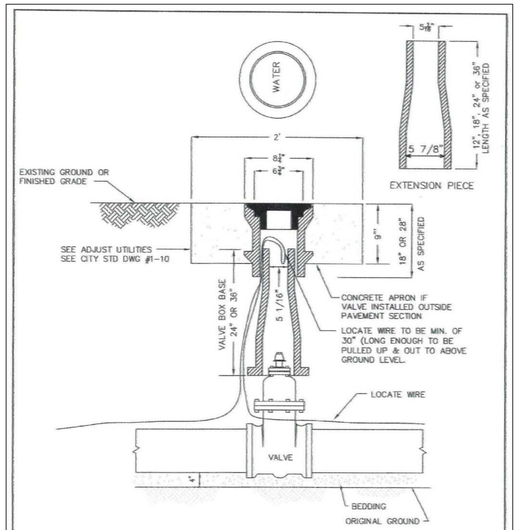
1. Sewage force mains shall have at least ten feet of horizontal separation and eighteen inches of clearance from potable water mains. Zone 2 and 3 placements are prohibited.
2. Separation requirements also apply to potable and non-potable service lines controlled by the system owner and extending the main line to the property line, service meter, or cleanout.

M:\Standards\2010-Standards\4-Water\Potable Nonpotable.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

POTABLE & NON-POTABLE WATERLINE SEPARATION

APPROVED FOR PUBLICATION — City Engineer — Date: 11-9-09 — DWG. NO. 4-1

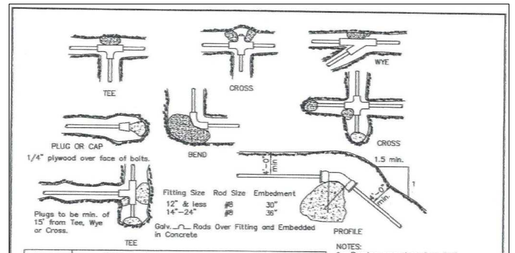


M:\Standards\2010-Standards\4-Water\Cast Iron Valve Box.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

GATE VALVE BOX WITH ASSEMBLY

APPROVED FOR PUBLICATION — City Engineer — Date: 11-9-09 — DWG. NO. 4-2



Fitting Size	BEARING AREA OF THRUST BLOCKS IN SQ. FT.				
	Tee, Wye, Plub or Cap	90° Bend Plugged Cross; Tee	45° Bend	22 1/2° Bend	11 1/4° Bend
4	1.0	1.4	1.0	---	---
6	2.1	3.0	1.6	1.0	---
8	3.8	5.3	2.9	1.5	1.0
10	5.9	8.4	4.6	2.4	1.2
12	8.5	12.0	6.6	3.4	1.7
14	11.5	16.3	8.9	4.6	2.3
16	15.0	21.3	11.6	6.0	3.0
18	19.0	27.0	14.6	7.6	3.8
20	23.5	33.3	18.1	9.4	4.7
24	34.0	48.0	26.2	13.6	6.8

Fitting Size	VOLUME OF THRUST BLOCK IN CU.YD.			
	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	---	---	---	---
6	1.3	---	---	---
8	2.3	1.1	---	---
10	3.7	1.8	---	---
12	5.5	2.8	1.2	---
14	7.6	3.9	1.7	---
16	9.9	5.1	2.3	0.9
18	---	6.3	3.2	1.4
20	---	7.7	4.0	1.8
24	---	11.1	5.7	2.6

NOTE:
Above volumes based on test pressure of 150 p.s.i. & the weight of concrete = 4050 lbs./cu.yd. To compare volumes for different test pressures use this following equation:

VOLUME = (150 p.s.i. test pressure) x (table value).

Thrust blocks for vertical up-bends shall be the same as for horizontal bends.

NOTES:

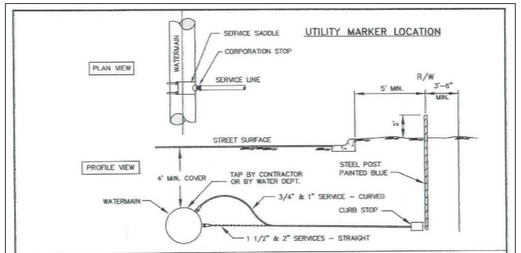
1. Bearing areas based on test pressure of 150 p.s.i. & soil bearing stress of 2,000 lbs. per sq.ft. To areas for different test pressure & soil bearing stresses, following equation: BEARING AREA = (150 p.s.i. test pressure)x(2000 lbs soil bearing stress)x(table value).
2. Concrete thrust blocking to be placed against undisturbed earth.
3. Keep concrete clear of joint and accessories.
4. The required thrust bearing areas for special connections are shown encircled on the plans;e.g. 15 indicates 15 sq. ft. bearing area required.
5. If not shown on plans, required bearing areas at fittings shall be as indicated above, adjusted if necessary, to conform to the test pressure(s) & allowable soil bearing stress(es) stated in the Special Specifications.
6. Bearing areas & special blocking details shown on plans take precedence over bearing areas & blocking details shown on this standard detail.
7. Concrete Compressive Strength shall be 2,500 p.s.i. minimum.
8. Concrete will be allowed 48 hrs. to set if high early yield concrete is used, otherwise, 7 days curing will be required.

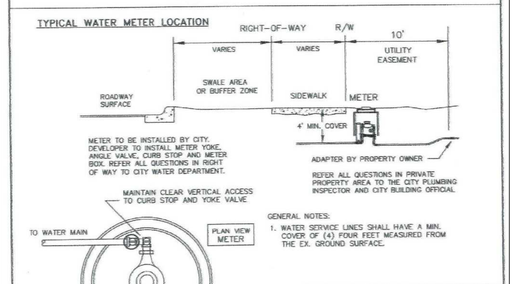
M:\Standards\2010-Standards\4-Water\Thrust Blocking.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

THRUST BLOCKING DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date: 11-9-09 — DWG. NO. 4-4





GENERAL NOTES:

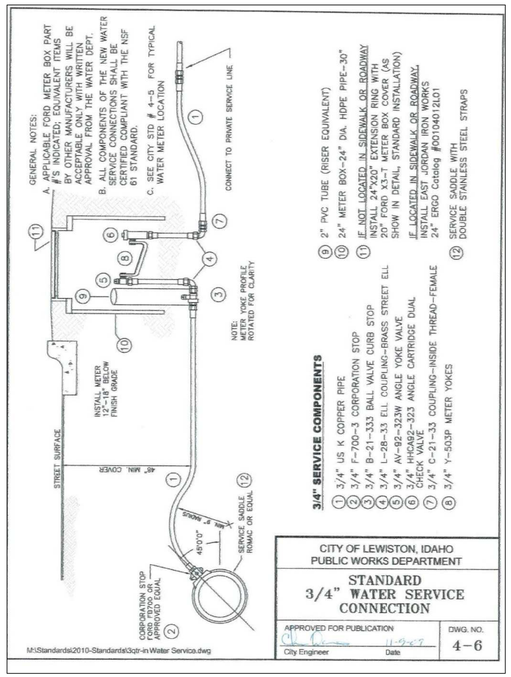
1. WATER SERVICE LINES SHALL HAVE A MIN. COVER OF (4) FOUR FEET MEASURED FROM THE EX. GROUND SURFACE.

M:\Standards\2010-Standards\4-Water\Water Service Location.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

TYPICAL WATER METER or UTILITY MARKER LOCATION

APPROVED FOR PUBLICATION — City Engineer — Date: 11-9-09 — DWG. NO. 4-5



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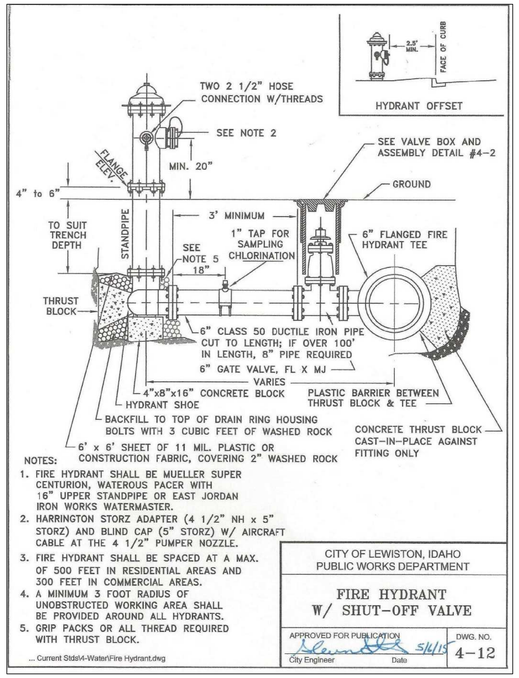
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STANDARD 3/4" WATER SERVICE CONNECTION

APPROVED FOR PUBLICATION — City Engineer — Date: 11-9-09 — DWG. NO. 4-6



NOTES:

1. FIRE HYDRANT SHALL BE MUELLER SUPER CENTURION, WATEROUS PACER WITH 16" UPPER STANDPIPE OR EAST JORDAN IRON WORKS WATERMASTER.
2. HARRINGTON STORZ ADAPTER (4 1/2" NH x 5" STORZ) AND BLIND CAP (5" STORZ) W/ AIRCRAFT CABLE AT THE 4 1/2" PUMPER NOZZLE.
3. FIRE HYDRANT SHALL BE SPACED AT A MAX. OF 500 FEET IN RESIDENTIAL AREAS AND 300 FEET IN COMMERCIAL AREAS.
4. A MINIMUM 3 FOOT RADIUS OF UNOBSTRUCTED WORKING AREA SHALL BE PROVIDED AROUND ALL HYDRANTS.
5. GRIP PACKS OR ALL THREAD REQUIRED WITH THRUST BLOCK.

... Current Stds\4-Water\Fire Hydrant.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

FIRE HYDRANT W/ SHUT-OFF VALVE

APPROVED FOR PUBLICATION — City Engineer — Date: 5/4/15 — DWG. NO. 4-12

NO.	DATE	BY	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER — CHARLES R. FISKE — 10962 — 10-12-20 — STATE OF IDAHO

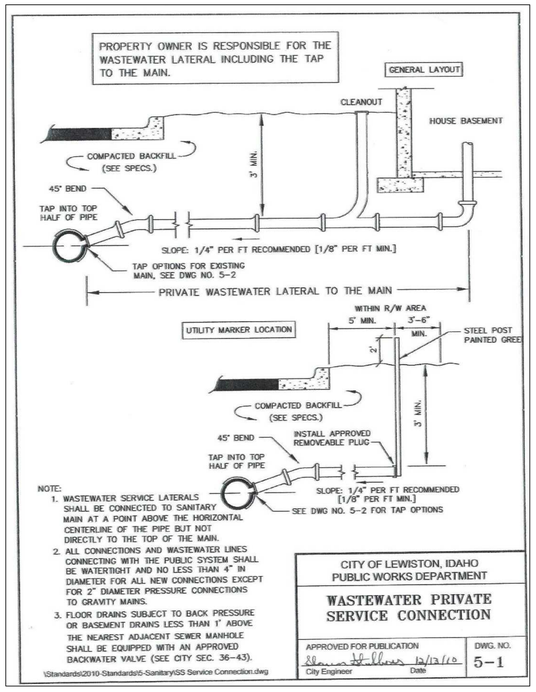
4025 EAGLE COURT
LEWISTON, ID 83501
FAX: (208) 790-1082
(208) 791-8055

NACLINE ENGINEERING & DRAFTING "an affordable alternative"

CARLTON HANGAR ADD.
LEWISTON ID 83501
4TH ST-WARNER/PARK AVE.
CITY DETAILS
WATER UTILITIES

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY:	CRF
SCALE:	1" = 25'
DATE:	10/12/20
PROJECT NO.:	682

SHEET 20 OF 24

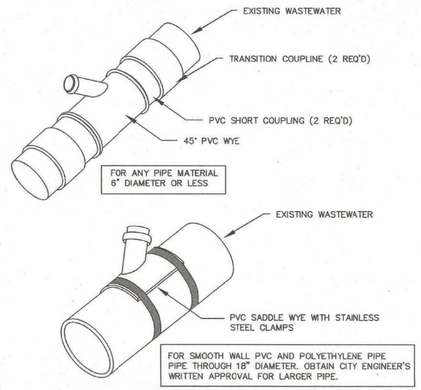


\Standards\2010-Standards\5-SanitarySewer\SS Service Connection.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER PRIVATE SERVICE CONNECTION

APPROVED FOR PUBLICATION — City Engineer — Date: 12/12/10 — DWG. NO. 5-1



NOTES

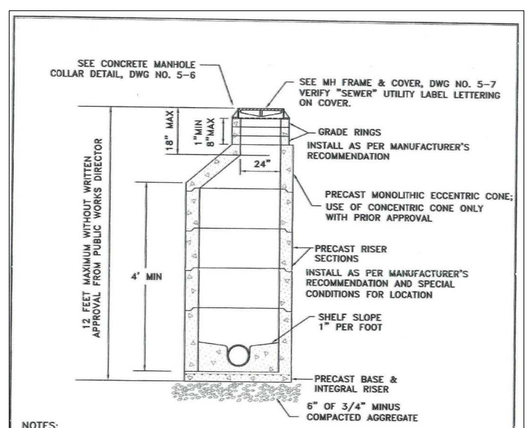
1. WASTEWATER SERVICE LATERALS SHALL BE CONNECTED TO SANITARY MAIN AT A POINT ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE BUT NOT DIRECTLY TO THE TOP OF THE MAIN.
2. FOR SANITARY MAIN PIPE OF 6" DIAMETER AND LARGER USE ROMAC STYLE "CB" WASTEWATER SADDLE.

\Standards\2010-Standards\5-SanitarySewer\Wastewater Tap Options.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER SERVICE TAP OPTIONS DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date: 12/12/10 — DWG. NO. 5-2



NOTES:

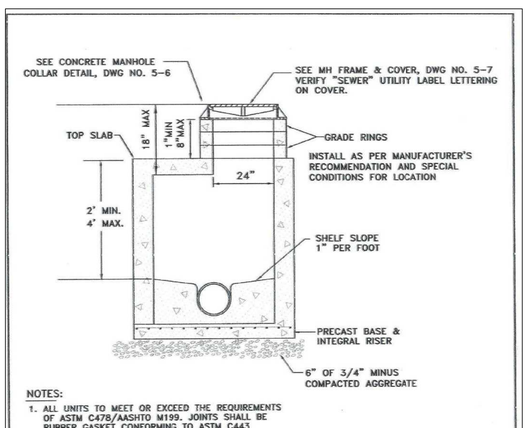
1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199. JOINTS SHALL BE RUBBER GASKET CONFORMING TO ASTM C443 AND SHALL BE GROUTED FROM THE INSIDE. LIFT HOLES SHALL BE GROUTED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
2. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM
3. CONNECTION TO 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 NOT BE MORE THAN ONE INCH OUT OF ALIGNMENT 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.

\Standards\2010-Standards\5-SanitarySewer\SS MH Type 1.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER TYPE 1 MANHOLE

APPROVED FOR PUBLICATION — City Engineer — Date: 12/12/10 — DWG. NO. 5-3



NOTES:

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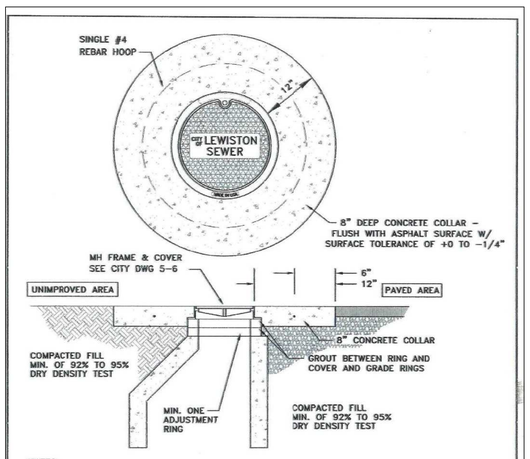
2. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
3. CONNECTION TO MANHOLE SHALL BE MADE USING RESILIENT CONNECTOR CONFORMING TO ASTM C-923 SUCH AS KOR-N-SEAL, A-LOK OR APPROVED EQUAL.
4. RISERS, UNIT SECTIONS AND THE FRAME SHALL NOT BE MORE THAN ONE INCH OUT OF ALIGNMENT WITH THE MANHOLE BASE; PIPES SHALL BE FLUSH WITH INSIDE EDGE OF MANHOLE.
5. PRESSURE TESTING IS REQUIRED FOR ALL INSTALLATIONS.
6. SEE DWG NO 5-6 FOR CONCRETE MANHOLE COLLAR.

\Standards\2010-Standards\5-SanitarySewer\SS Shallow MH.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER TYPE 1A MANHOLE (SHALLOW MANHOLE)

APPROVED FOR PUBLICATION — City Engineer — Date: 12/12/10 — DWG. NO. 5-4



NOTES:

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 WILL BE SEALED WITH CSSI OR APPROVED EQUAL; ALL TOP EDGES WILL BE TACKED AND SAND SEALED.
4. UTILITY FRAMES AND LIDS ARE PREFERRED OUTSIDE OF WHEEL PATH, WHERE POSSIBLE.

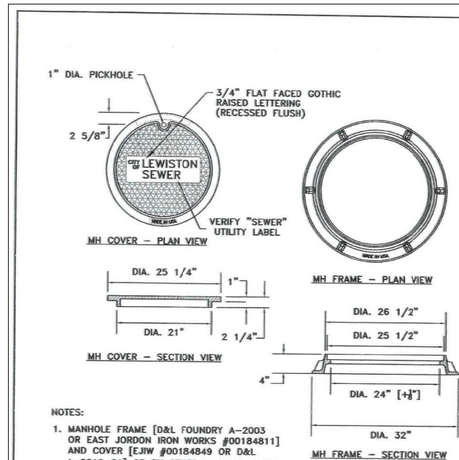
SIMILAR TO CITY STD NO. 6-4

\Standards\2010-Standards\5-SanitarySewer\SS MH Collar.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER CONCRETE MANHOLE COLLAR

APPROVED FOR PUBLICATION — City Engineer — Date: 12/12/10 — DWG. NO. 5-6



NOTES:

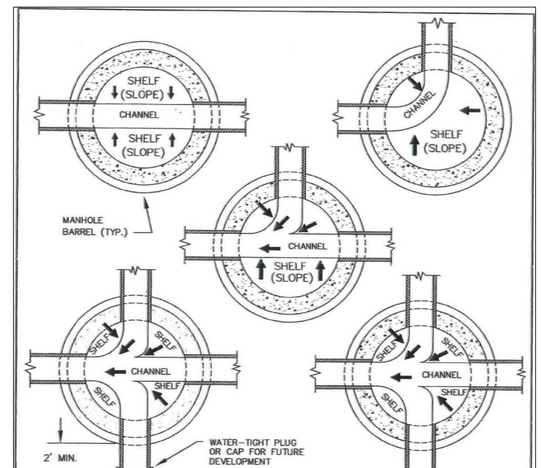
1. MANHOLE FRAME [D&L FOUNDRY A-2003 OR EAST JORDON IRON WORKS #00184811] AND COVER [EJIW #00184849 OR D&L A-2010-01] OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.; VERIFY "SEWER" UTILITY LABEL LETTERING ON COVER.
2. COVER MATERIAL SPECIFICATION GRAY IRON (ASTM A48 CL35B)

\Standards\2010-Standards\5-SanitarySewer\MH Frame_Cover.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER MANHOLE FRAME AND COVER

APPROVED FOR PUBLICATION — City Engineer — Date: 12/12/10 — DWG. NO. 5-7



NOTES

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.

\Standards\2010-Standards\5-SanitarySewer\Channel Detail.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER MANHOLE CHANNEL DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date: 12/12/10 — DWG. NO. 5-8

NO.	DATE	BY	FILENAME
			682
0			ORIGINAL DRAWING

REVISIONS

PROFESSIONAL ENGINEER — REGISTERED — 10962 — 10-12-20 — STATE OF IDAHO — CHARLES R. FISKE

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NACLINE ENGINEERING & DRAFTING
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LEWISTON ID 83501
4TH ST-WARNER/PARK AVE.
CITY DETAILS
SEWER UTILITIES

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY:	CRF
SCALE:	1" = 25'
DATE:	10/12/20
PROJECT NO.:	682

SHEET 21 OF 24

GENERAL NOTES FOR STORMWATER SYSTEMS

1. ALL WORK SHALL CONFORM TO CURRENT 'IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION' (ISPWC) 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.
2. ANY REPAIR, MAINTENANCE OR ALTERATION OF A PUBLIC STORM LINE OR DRAINAGE MUST BE APPROVED BY CITY ENGINEER.
3. THE CONTRACTOR MUST SECURE APPROVAL FROM THE CITY ENGINEER PRIOR TO ADDING OR REMOVING FILL BACKFILL OVER-PUBLIC STORM DRAIN MAINLINE.
4. THE ENGINEERING INSPECTOR SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING WORK ON STORM DRAINS.
5. ALL PUBLIC STORM DRAIN LINES SHALL BE VIDEOTAPED AND SUBMITTED TO THE PUBLIC WORKS DEPARTMENT [AS PER PUBLIC WORKS POLICY NO. 2012-2] AND APPROVAL PRIOR TO PAVING. CITY SHALL HAVE FOURTY-EIGHT (48) HOURS FOR REVIEW.
6. 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 PWD MAIN OFFICE (208) 746-1316 FOR INSPECTION SCHEDULING.
7. 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.
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 PIPE 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 INSTALLATIONS. SEE CITY DWG 1-8, 'IDENTIFYING TAPE DETAIL'.
13. 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 11/21/16 — DWG. NO. 6-1

\Standards Dwgs - City\Current Stds\6-StormSewer\General_Notes_stm.dwg

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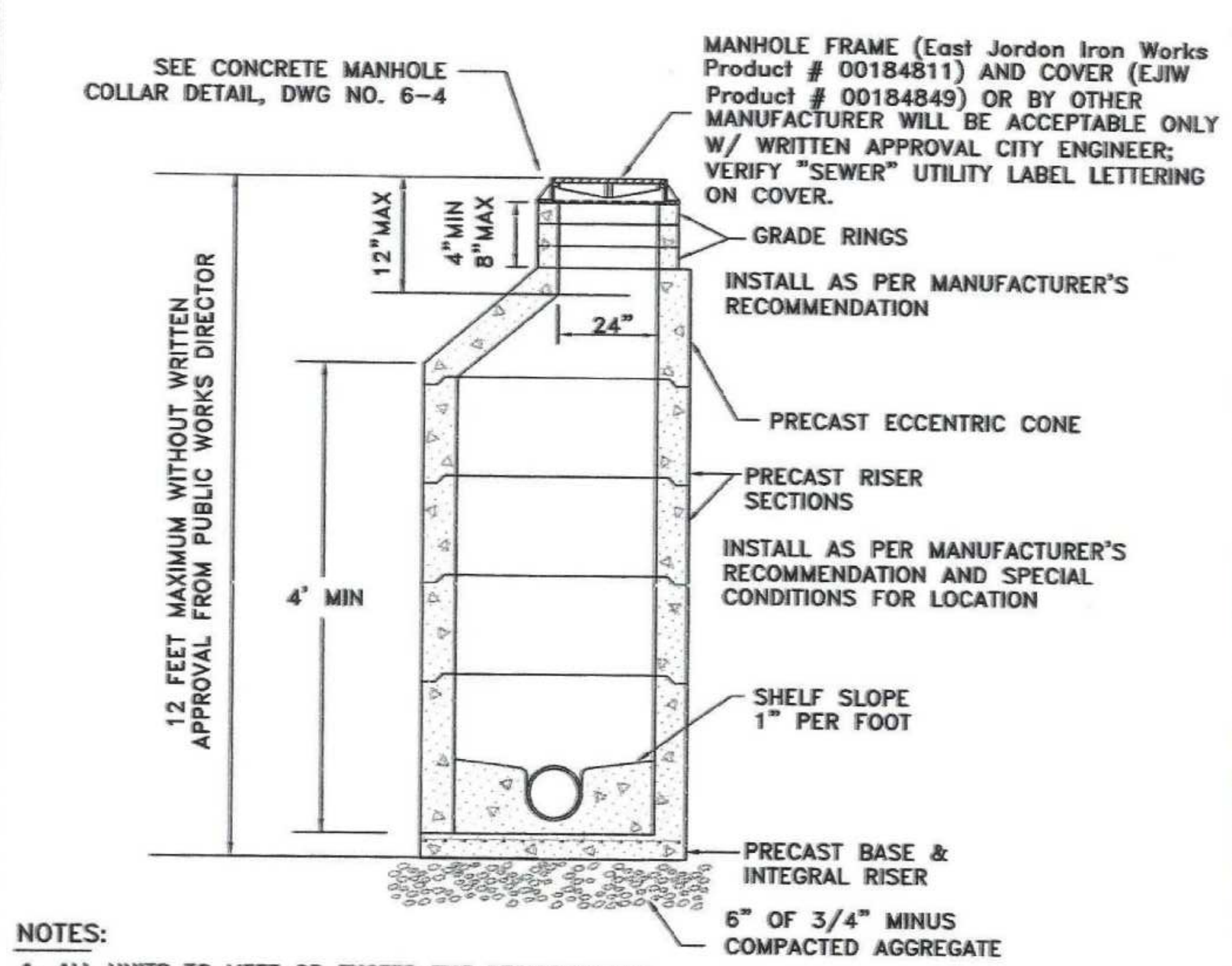


NOTES:

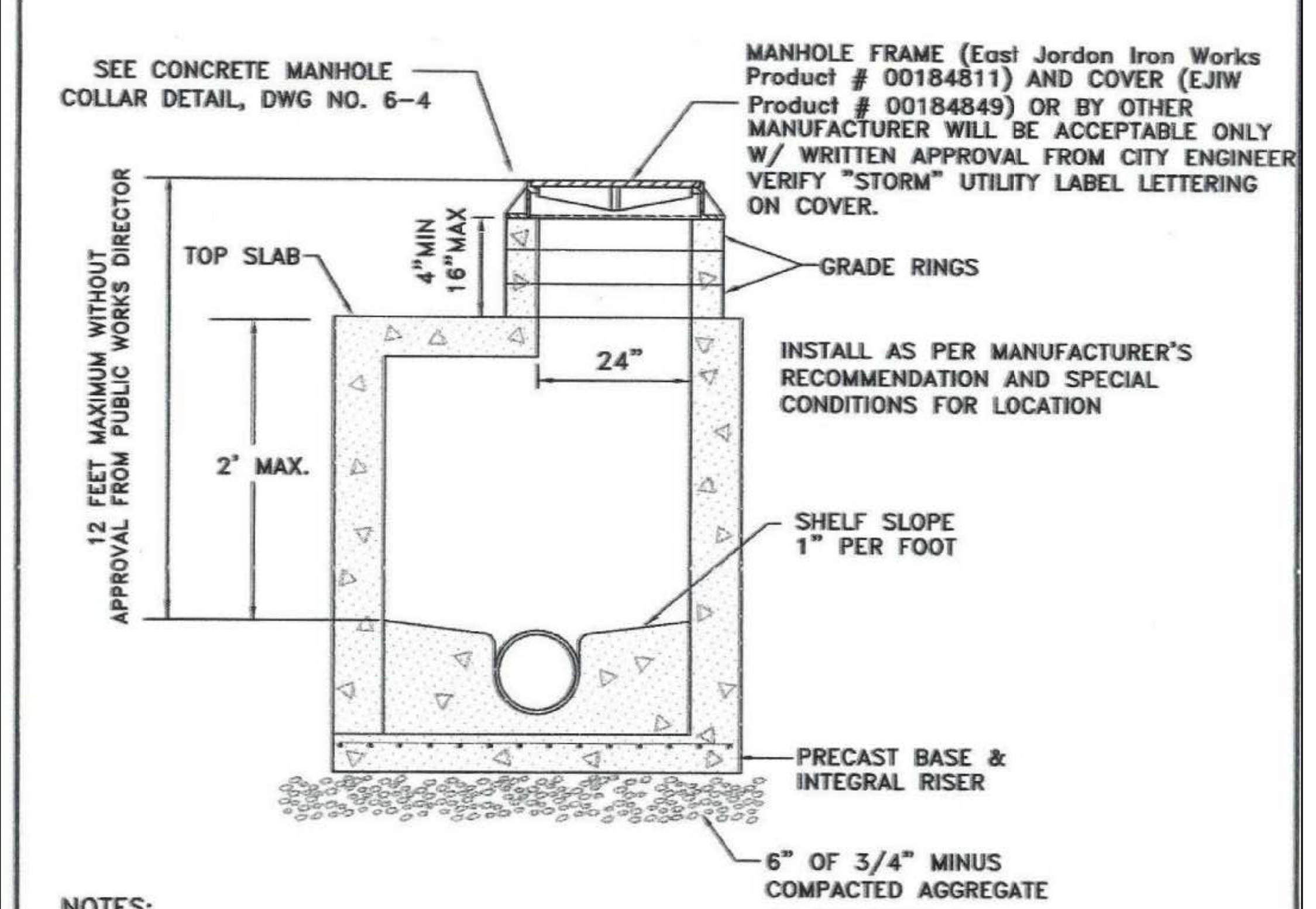
1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199. JOINTS SHALL BE RUBBER GASKET CONFORMING TO ASTM C443 AND SHALL BE GROUTED FROM THE INSIDE. LIFT HOLES BE GROUTED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
2. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM
3. CONNECTION TO MANHOLE SHALL BE MADE USING RESILIENT CONNECTOR CONFORMING TO ASTM C-923 SUCH AS KOR-N-SEAL, A-LOK OR APPROVED EQUAL. 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 BASE; PIPES SHALL BE FLUSH WITH INSIDE EDGE OF MANHOLE.
6. SEE DWG NO 6-4 FOR CONCRETE MANHOLE COLLAR.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER TYPE 1 MANHOLE

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 6-2

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



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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 GROUTED FROM THE INSIDE. LIFT HOLES 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 MANHOLE SHALL BE MADE USING RESILIENT CONNECTOR CONFORMING TO ASTM C-923 SUCH AS KOR-N-SEAL, A-LOK OR APPROVED EQUAL.
4. IF SUMP IS ADDED, THREE 1 1/2" DIA. WEEP HOLES AND 12" OF COMPACTED 5/8" MINUS SHALL BE ADDED UNDER MANHOLE BASE.
5. USE A MINIMUM OF 1/2" OF NON-SHRINK GROUT BETWEEN RISERS, CONE AND FRAME.
6. 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.
7. SEE DWG NO 6-4 FOR CONCRETE MANHOLE COLLAR.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER TYPE 1A MANHOLE (SHALLOW MANHOLE)

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 6-3

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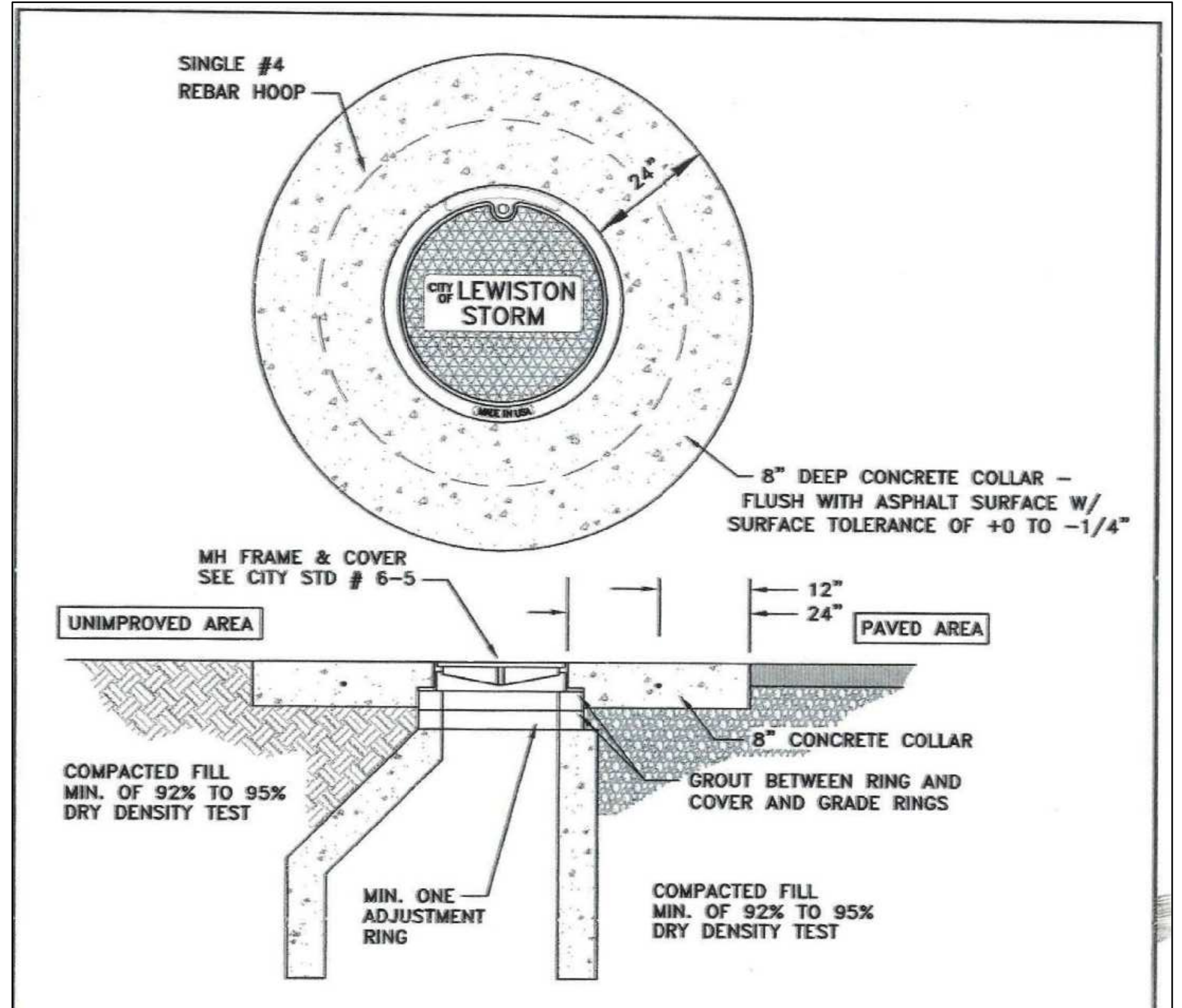


NOTES:

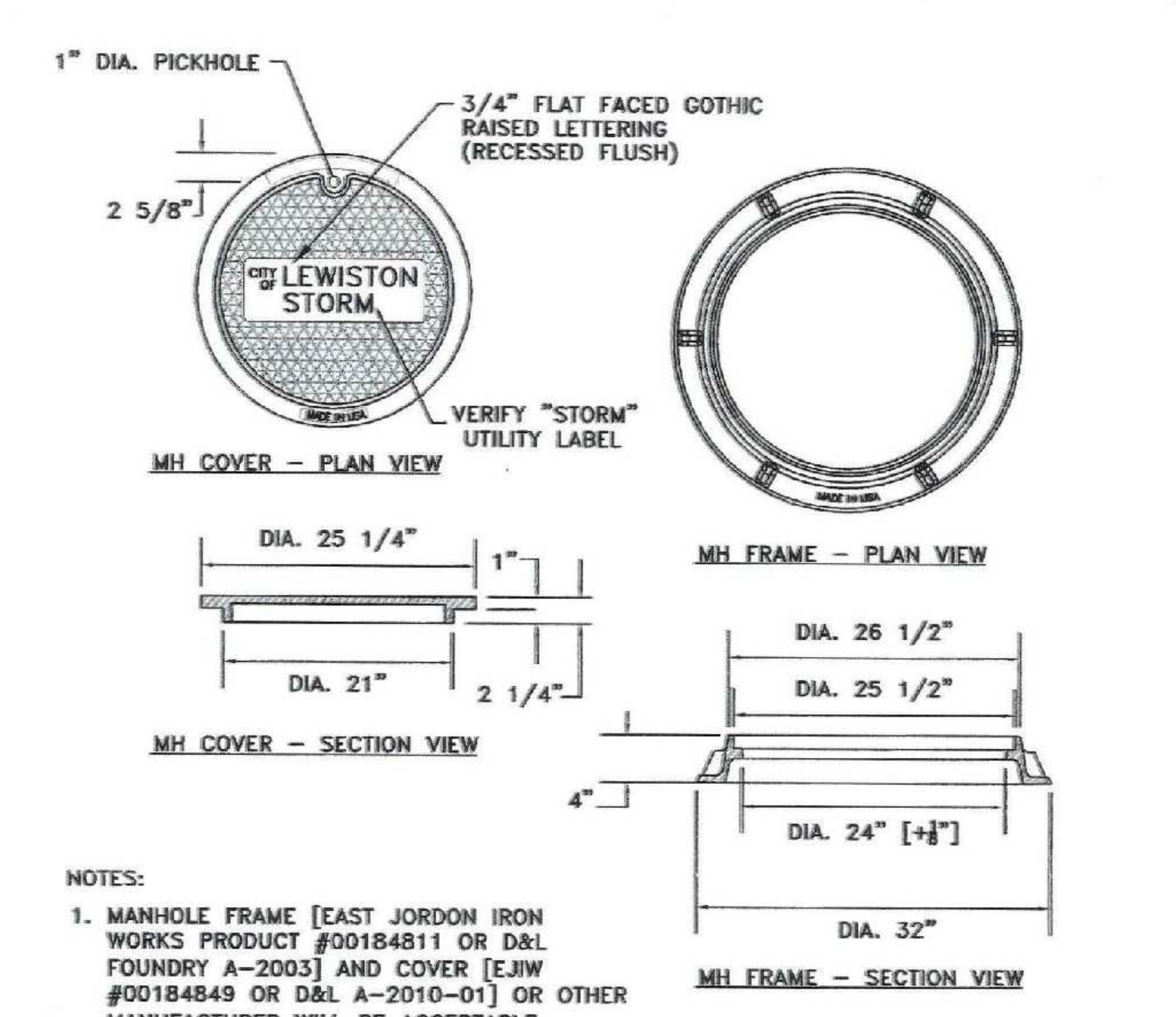
1. A CIRCULAR-SHAPED CONCRETE COLLAR IS REQUIRED ON ALL INSTALLATIONS; IN BOTH PAVED OR UNIMPROVED AREAS. INSTALL A 8" THICK CONCRETE COLLAR THAT SHALL BE FLUSH WITH THE ASPHALT SURFACE WITH A SURFACE TOLERANCE OF +0 TO -1/4".
2. CONCRETE SHALL BE 3,000 PSI MIN. AT 28 DAYS, WATER/CEMENT RATIO SHALL BE 0.5, 3" MAX. SLUMP AND 3% TO 6% ENTRAINED AIR WITH ONE #4 REBAR HOOP. FIBER-REINFORCED CONCRETE (ADDED PER MANFACTURER'S RECOMMENDATIONS) MAY BE USED IN LIEU OF #4 REBAR.
3. ALL EDGES WILL BE SEALED WITH CSSI OR APPROVED EQUAL; ALL TOP EDGES WILL BE TACKED AND SAND SEALED.
4. UTILITY FRAMES AND LIDS ARE PREFERRED OUTSIDE OF WHEEL PATH, WHERE POSSIBLE.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

CONCRETE MANHOLE COLLAR

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 6-4

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



NOTES:

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)

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER MANHOLE FRAME AND COVER

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 6-5

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

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 COMPACTED TO 95% MODIFIED PROCTOR AS PER AASHTO T180
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. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 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 INVERT 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. SET GRATE 1" LOWER THAN PROPOSED FLOWLINE TO ENSURE POSITIVE DRAINAGE INTO CATCH BASIN. CURB FLOWLINE SHALL 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.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER GENERAL CATCH BASIN NOTES

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 6-6

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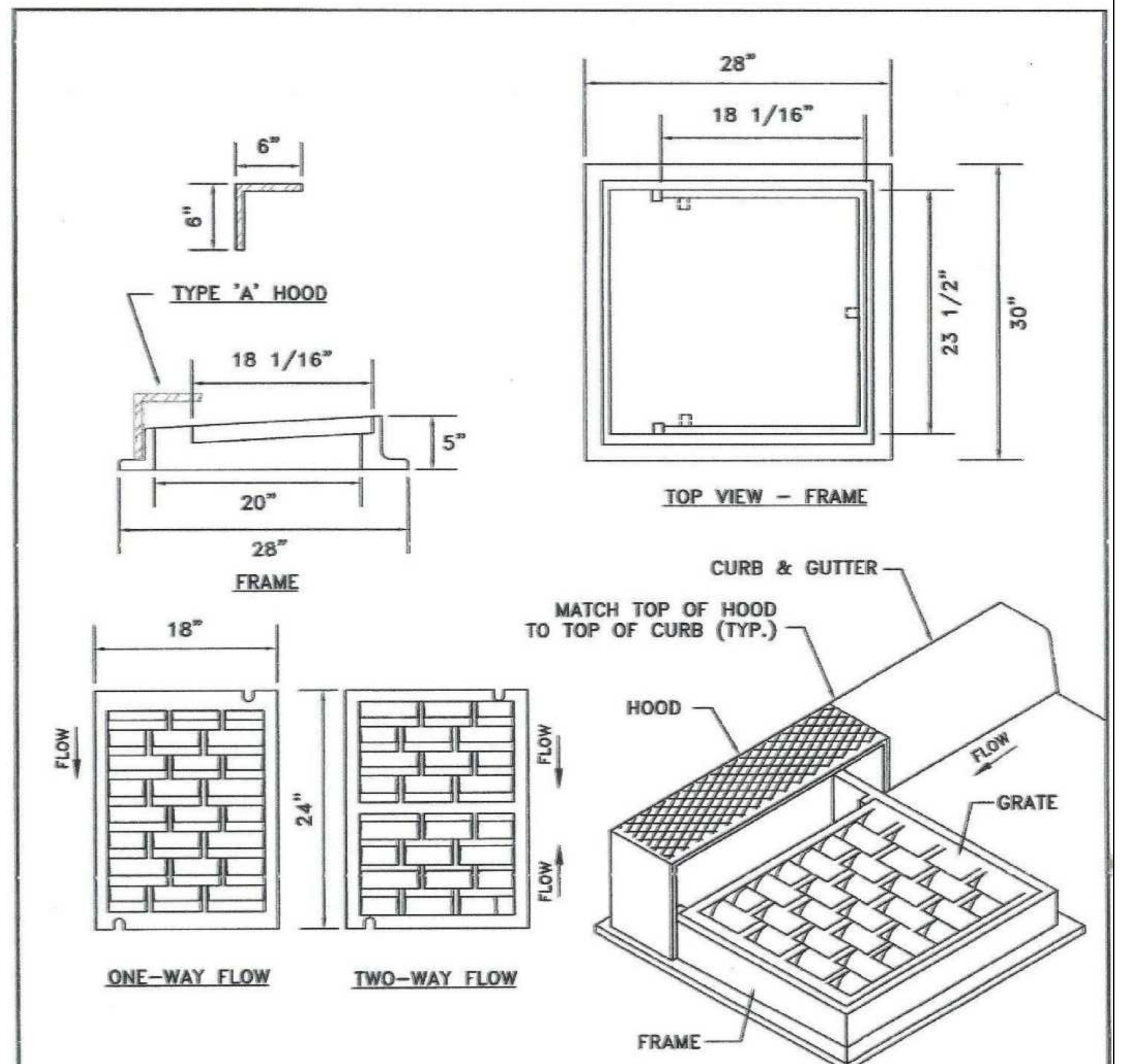

NOTES:

1. CURB INLET CATCH BASIN FRAME [D & L SUPPLY – PRODUCT I-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 BASIINS'.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER CATCH BASIN FRAME AND GRATE

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 6-7

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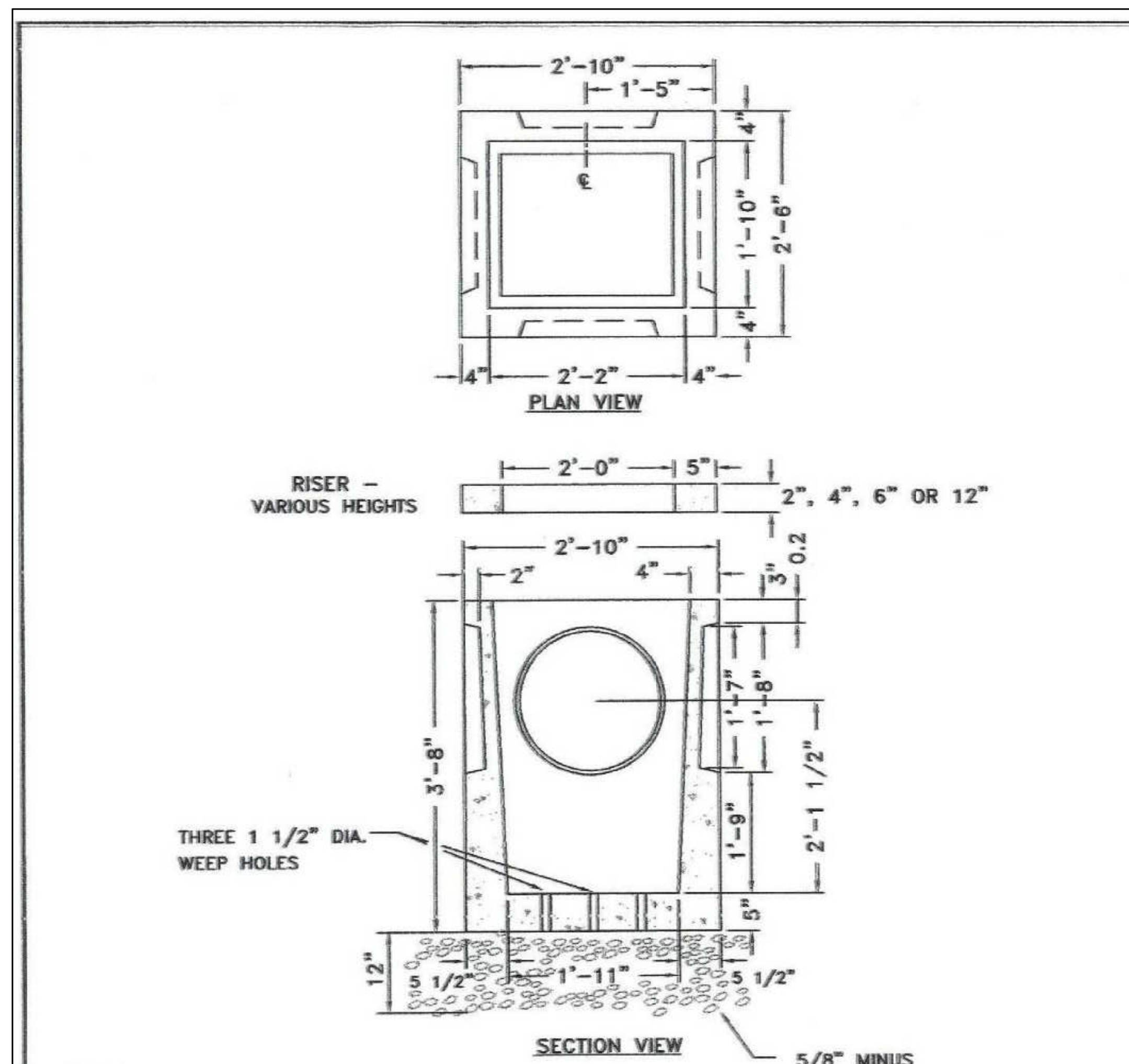

NOTES:

1. TYPICAL CATCH BASIN [WILBERT PRECAST PRODUCT #1827] AND RISERS [WILBERT PRECAST #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'.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER TYPE 1 CATCH BASIN

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 6-8

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NO.	DATE	BY	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING

REGISTERED PROFESSIONAL ENGINEER 10962 — 10-12-20 — STATE OF IDAHO — CHARLES R. FISKE

NACLINE ENGINEERING & DRAFTING "an affordable alternative"
4025 EAGLE COURT LEWISTON, IDAHO 83501 FAX (208) 750-1082 (208) 791-8035

CARLTON HANGAR ADD.
LEWISTON ID 83501
4TH ST-WARNER/PARK AVE.
CITY DETAILS
STORMWATER UTILITIES

DRAWN BY: CRF — CHECKED BY: CRF
DESIGNED BY: CRF
SCALE: 1" = 25'
DATE: 10/12/20
PROJECT NO.: 682

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].	
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 WDOT/M41-10 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]. Test top 6" of 12" cover.	
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 WDOT/M41-10 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].	
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 WDOT/M41-10 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].	
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	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		Certified & Visual by City
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 Plans/or City Std Dwg # 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 1½ 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	PVC, SDR 35	ASTM 3034		N/A	
ALIGNMENT AND GRADE	N/A	N/A		Per Plan	
JOINTS (Deflection/Proper Pipe Embedment)	N/A	Per Manufacturer's Instructions		Each Joint	
MANHOLES	Concrete	Hydrostatic Test		Each Joint	
PRESSURE TEST	N/A	4 PSI for 15 Minutes, 1/2 PSI Drop		Between Access Holes	
VIDEO INSPECTION	N/A	No Perforations, Dents or Dimples, No Bellies > 0.02'	Public Works Policy No 2012-2	Between Access Holes	
Sections 5 thru 11 on Page 2 of 2					
Date Last: Revised December 2017					

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.
5. CONCRETE CURB, GUTTER & SIDEWALK					
CONCRETE	CLASS 35B - Approved Mix Design Required with Min Cement Content of 590 LB/CY, Max Water/ Cement Ratio of .44, a WRA, and an AEA	AASHTO T-22 Compressive Strength of Concrete AASHTO T-23 Making Test Specimens AASHTO T-119 Slump of Hydraulic Cement Concrete AASHTO T-152 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/lb Max. Slump = 5 inches Air Content Percent = 6.5% ± 1.5 Temperature = 50°F - 80°F	1 of Each Test Minimum per Day, or 1 of Each Test per 50 CY	
CRUSHED AGGREGATE BASE COURSE	3/4" minus Crushed Aggregate (4" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (4" Max. Lift) (Current WDOT/M41-10 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	1 Tests Per 500 LF-Min 2 Tests	
ALIGNMENT AND GRADE	N/A	Visual	± 0.02' from Design Grade/Alignment	Per 10' Section	City Approval
JOINTS/FLATNESS/STRAIGHTNESS	N/A	Visual	± 0.02'/10' Segment	Per 10' Section	
FINISH	N/A	Visual	Floated, Uniform, Light Broom Finish	Entire Surface Area	
6. ASPHALTIC CONCRETE PAVING					
SUPERPAVE HOT MIX ASPHALT	ITD 405 Superpave Class SP3 and SP5 (2017 ITD Spec 405 and 703.05) Note: Contractor shall provide a pre-pave meeting to discuss methods and production operations for new roadway construction or projects over 200 tons. The City of Lewiston reserves the right to request a pre-pave meeting for projects with 200 tons or less.	**Class SP2:** AASHTO T-308, Asphalt Content AASHTO T-27 & T-11, Sieve Analysis WAQTC TM-8, In-Place Density of Bituminous Mixes AASHTO T-209, Theoretical Maximum Density (RICE) **Class SP3 and SP5:** AASHTO T-308, Asphalt Content AASHTO T-27 & T-11, Sieve Analysis AASHTO T-166 Method A, Air Voids, and Voids in Mineral Aggregates (VMA) WAQTC TM-8, In-Place Density of Bituminous Mixes with Correlated Nuclear Gauge or, AASHSTO T-166, Density of Bituminous Mixes by Cores AASHTO T-209, Theoretical Maximum Density (RICE) Density Note: When a non-correlated gauge is used to determine in-place density during production, cores will be taken for final density and thickness determination. When a correlated gauge is used for production testing, cores will be taken for thickness determination only. **Core quantities and locations to be determined by the City of Lewiston.**	**ITD Section 405.03** Asphalt Content - CJMF Value +/- 0.3% Sieve Analysis - Table 405.03-5 Air Voids - 4.0 +/- 1.0% Voids in Mineral Aggregates, at N design 703.05 Minimum Value 0.05b **All Projects Regardless of Tonnage** In-Place Density - 92-96% of Maximum Theoretical (When acceptance will be from correlated gauge, contractor must submit documentation showing gauge correlation to proposed bituminous mixture used.)	**Project 200 tons or less -** Minumum of 1 test (asphalt content, and gradation) per project. A minimum of 2 cores will be taken to determine final thickness and/ or density. **Projects 200 tons or more -** Minimum of **1 test** (asphalt content, gradation, voids, and VMA) per 750 tons or, one per day. A minimum of 5 cores will be taken to determine final thickness and/or density. Random sampling locations determined by the City of Lewiston. The City of Lewiston reserves the right for 3rd party verification, inspections, and/or testing prior to infrastructure acceptance.	
CRUSHED AGGREGATE BASE COURSE	Same test requirement as under **5. Concrete Curb, Gutter & Sidewalk**				
7. EROSION & SEDIMENT CONTROLS	Per Approved Plan	Per Plan and Manufacturers' Instructions		1/Wk or After Every Rainfall	
8. TRAFFIC CONTROL	Per Approved Plan	Current Adopted MUTCD/ATSSA		Continuous	
9. PRIVATE STORMWATER SYSTEM	Per Approved Plan	City Resolution #80-100	Certified & Visual by City		Certified & Visual by City - Underground infrastructure elements must be approved by City prior to backfill.
10. RECORD DRAWINGS	AutoCAD Elect File, Bond Paper, 22" x 34" Min Size	City Checklist		Before Public Improvements Accepted	
Date Last: Revised December 2017					

City Standards Disclaimer

Public Works attempts to achieve maximum uniformity of construction and engineering practices within the City of Lewiston. These are minimum standards and are intended to assist, but not to substitute for work by engineering and design professionals. Special conditions or environmental constraints may require more stringent design than would normally be required under these Standards. It is not the intent of the City to limit any innovative effort that could result in a superior project design. A proposed design, which is different from these Public Works Standards, will be evaluated on the basis that the proposed design will produce a comparable or superior result, and in every way adequate for the user, the City, and the Public.

Deviations from Adopted City Standards

Deviation from these Standards may be granted by the Public Works Director [PWD] upon written evidence from the Project Engineer that the proposed deviation does not conflict with or modify a condition of approval and

- deviations are based upon sound engineering principles, and
- deviations meet requirements for safety, function, appearance, and maintainability.

A request for approval of a deviation to a standard must be submitted in writing to the PWD. The applicant shall present supporting information that would justify approval of the request in terms of the above criteria. The directors of the appropriate departments or the authorized representatives shall approve or deny the request based upon these criteria.

Desired deviations must be approved before utility/road plans are approved. Deviations must also be approved before commercial building permits are issued. The PWD may apply conditions to the approval of design deviations.

City Specifications

The City of Lewiston has adopted the following specifications. If information provided in these specifications differs from the information provided in the adopted City Standards Drawings, the City Standard Drawing shall take precedence.

2015 Idaho Standards for Public Works Construction (ISPWC), Idaho Code (IDAPA) 58.01.16 – Wastewater Rules (http://adminrules.idaholgov/rules/current/58/0116.pdf) and Idaho Code 58.01.01 Idaho Rules for public Drinking Water Systems (http://adminrules.idaho.gov/rules/current/58/0180.pdf);

The City of Lewiston has adopted the design manuals listed below. If information provided in these design manuals differ from adopted City Standard Drawings, the City Standard Drawings shall take precedence.

Idaho Transportation Department (ITD) Standard Drawings and Roadway Design Manual (as found at http://itd.idaho.gov/manuals/ManualsOnline.htm); 2011 American Traffic Safety Services Association- "The Green Book" (AASHTO) 6th Edition and 2009 Manual on Uniform Traffic Control Devices (MUTCD) with Revision 1 & 2 May 2012 (http://itd.idaho.gov/manuals/ManualsOnline.htm with Idaho Exceptions). State of Idaho,

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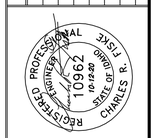
Dept. of Environmental Quality; Catalog of Stormwater Best Management Practices for Idaho Cities and Counties, 2005 (http://www.deq.idaho.gov/media/622263-Stormwater.pdf)

Publications not found on the Internet are available in the Public Works' Library for viewing but not for checkout; please call (208) 746-1316 for appointment or stop-by at 215 'D' Street.

Questions, comments, and suggestions can be directed to the Public Works Department at (208) 746-1316.

NO.	DATE	BY	FILENAME	REVISIONS
0			682	ORIGINAL DRAWING



4025 EAGLE COURT
LEWISTON, IDAHO 83501
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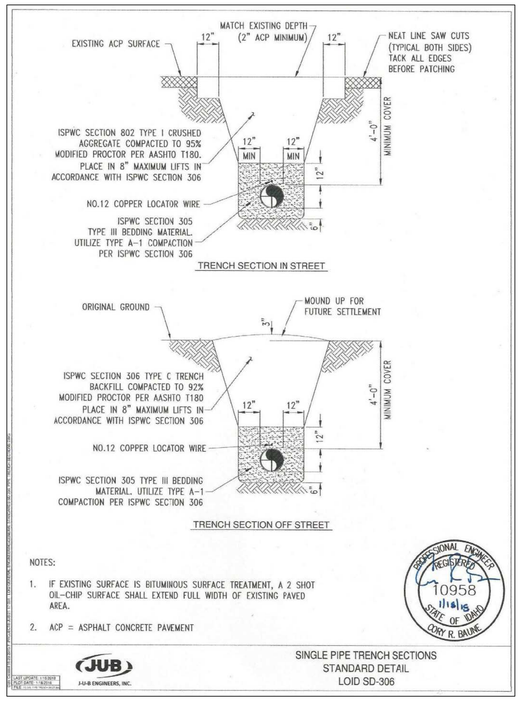
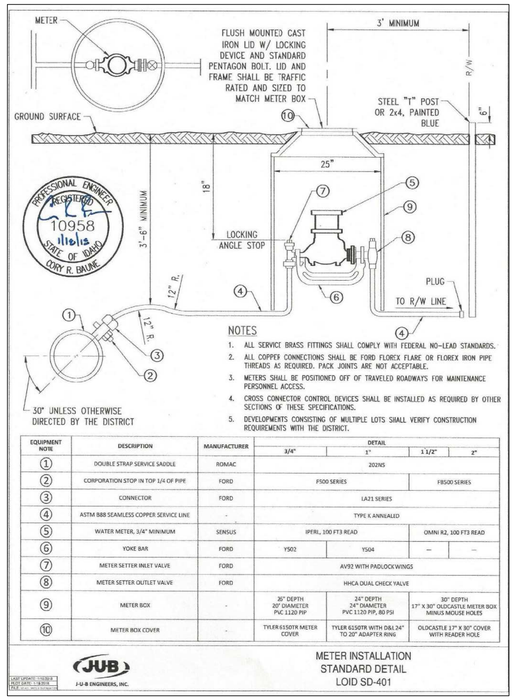
FAX (208) 791-8055

NACLINE
ENGINEERING & DRAFTING
"an affordable alternative"

CARLTON HANGAR ADD.
LEWISTON ID 83501
4TH ST-WARNER/PARK AVE.
CITY INSPECTION & TESTING
CITY STANDARD DISCLAIMER

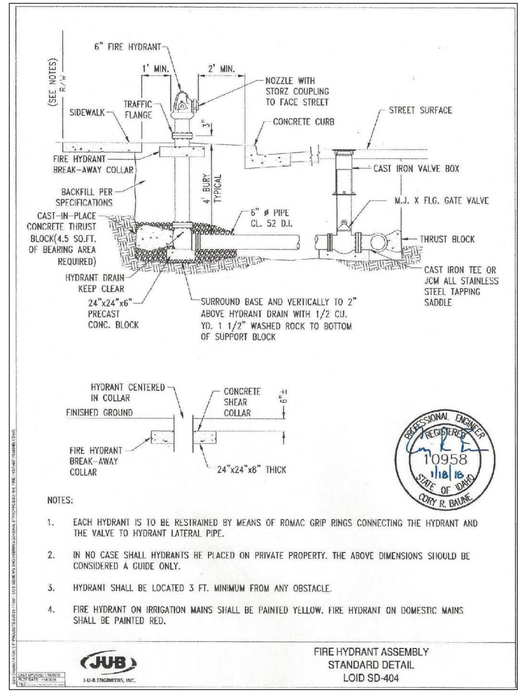
DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY:	CRF
SCALE:	1" = 25'
DATE:	10/12/20
PROJECT NO.:	682
SHEET 23 OF 24	





EQUIPMENT NOTE	DESCRIPTION	MANUFACTURER	DETAIL			
			3/4"	1"	1 1/2"	2"
1	DOUBLE STRAP SERVICE SADDLE	ROMAC	202NS			
2	CORPORATION STOP IN TOP 1/4 OF PIPE	FORD	FB500 SERIES		FBS00 SERIES	
3	CONNECTOR	FORD	LA21 SERIES			
4	ASTM B88 SEAMLESS COPPER SERVICE LINE	-	TYPE K ANNEALED			
5	WATER METER, 3/4" MINIMUM	SENSUS	IPERL, 100 FT3 READ		OMNI R2, 100 FT3 READ	
6	YOKE BAR	FORD	YS02	YS04	—	—
7	METER SETTER INLET VALVE	FORD	AV92 WITH PADLOCKWINGS			
8	METER SETTER OUTLET VALVE	FORD	HHCA DUAL CHECK VALVE			
9	METER BOX	-	36" DEPTH 20" DIAMETER PVC 1120 PIP	24" DEPTH 24" DIAMETER PVC 1120 PIP, 80 PSI	30" DEPTH 17" X 30" OLDCASTLE METER BOX MINUS MOUSE HOLES	
10	METER BOX COVER	-	TYLER 6150TR METER COVER	TYLER 6150TR WITH D&L 24" TO 20" ADAPTER RING	OLDCASTLE 17" X 30" COVER WITH READER HOLE	

METER INSTALLATION
STANDARD DETAIL
LOID SD-401



FIRE HYDRANT ASSEMBLY
STANDARD DETAIL
LOID SD-404

NO.	DATE	BY	REVISIONS
0			ORIGINAL DRAWING

FILENAME: 682

PROFESSIONAL ENGINEER REGISTERED 10962 10-12-20 STATE OF IDAHO CHARLES R. FISKE

4025 EAGLE COURT
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FAX (208) 790-1082
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STANDARD DETAILS

DRAWN BY: CRF	CHECKED BY: CRF
DESIGNED BY: CRF	
SCALE: 1" = 25'	
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PROJECT NO.: 682	
SHEET 24 OF 24	