



City of Ketchum

August 1, 2022

Mayor Bradshaw and City Councilors
City of Ketchum
Ketchum, Idaho

Mayor Bradshaw and City Councilors:

Recommendation to Approve the Bluebird Community Housing Project Right-of-Way Encroachment Agreement 22779

Recommendation and Summary

Staff recommends the Ketchum City Council approve the attached Right-of-Way Encroachment Agreement 22779 and adopt the following motion:

“I move to authorize the Mayor to sign Right-of-Way Encroachment Agreement 22779 with 4% Bluebird Housing Partners LLC.”

The reasons for the recommendation are as follows:

- The improvements will not impact the use or operation of the street or decrease the number of on-street parking spaces along East Avenue or 5th Street.
- The improvements will not impact drainage or snow removal within the public right-of-way.
- The project complies with all standards for Right-of-Way Encroachment Permit issuance specified in Ketchum Municipal Code §12.12.060.

Introduction and History

The applicant, GMD Development in partnership with the Ketchum Community Development Corporation, is proposing to develop a community housing project with 51 deed-restricted community housing units. The project is located on two City-owned parcels—Lot 3A (City Hall) and the west 75 feet of Lots 7 and 8 (rear parking lot). The development site is located within the Retail Core Subdistrict of the Community Core (CC-1). The community housing project consists of two buildings, Building A on the City Hall parcel and Building B on the parking lot, connected by a skybridge across the Block 45 alley.

The Planning & Zoning Commission unanimously approved the Bluebird Village Community Housing Project Design Review (Application File No. P21-063) during their regular meeting on August 10th, 2021, and adopted the associated Findings of Fact, Conclusions of Law, and Decision during a special meeting on August 24th, 2021. The Ketchum City Council unanimously affirmed the Planning & Zoning Commission’s approval of the Bluebird Village Community Housing Project design (Design Review Application File No. P21-063) and approved the development’s building height and fourth floor during their regular meeting on October 4th, 2021.

The project requires a Right-of-Way Encroachment Permit for the snowmelt system proposed to be installed for the sidewalks along East Avenue and 5th Street, the skybridge connecting the two buildings over the alleyway, the metal canopies overhanging 5 feet into the East Avenue right-of-way, the window shades projecting 6 inches from the west façade along East Avenue, an irrigation line, and building footing foundations that encroach slightly into the East Avenue and 5th Street rights-of-way. The City Council has the authority to review and approval all permanent encroachments within the public right-of-way associated with a development project pursuant to Ketchum Municipal Code §17.96.030.C. The City Council must review and approve the proposed encroachments and an associated ROW Encroachment Agreement prior to issuance of a building permit for the project pursuant to Condition of Approval No. 8 of Design Review P21-063.

A public right-of-way is defined as improved or unimproved public property dedicated or deeded to the City for the purpose of providing vehicular, pedestrian, and public use. In Ketchum, the public rights-of-way consist of roadways, curbs, gutters, sidewalks, signage, and drainage facilities. The public rights-of-way are also used for public parking, wintertime snow storage, and conveyance of utilities, such as water, sewer, electricity, telephone, and cable.

Analysis

Pursuant to Ketchum Municipal Code §12.12.040.C, a Right-of-Way Encroachment Permit is required for any permanent encroachment of the public right-of-way where a permanent fixture to the ground or a building will occur. The associated Right-of-Way Encroachment Agreement is intended to help protect the City in the event the proposed encroachments were to ever pose an issue requiring repair, relocation, or removal of the encroachment. The standards for issuance of a Right-of-Way Encroachment Permit are specified in Ketchum Municipal Code §12.12.060. The encroachments proposed for the Bluebird project comply with all standards.

The project plans approved with Design Review Application File No. P21-063 proposed concrete sidewalks along East Avenue and 5th Street with snowmelt. Snowmelt was not proposed for the alleyway between the two buildings. During building permit review, city staff determined snow melt for the alley between the two buildings was important to address the Streets Department's safety concerns associated with icy conditions. In order to maintain consistency with the existing paver sidewalks adjacent to the Bluebird project site, the City has also requested that the sidewalks along East Avenue and 5th Street to be surfaced with pavers. The civil drawings attached as Exhibit A to the Right-of-Way Encroachment Agreement provide snowmelt for the entirety of the alley adjacent to the property as well as heated paver sidewalks. The civil drawings for the building permit will be amended to match Right-of-Way Encroachment Agreement Exhibit A once funding has been secured for the alley snowmelt extension and paver sidewalks. These additions to the project result in additional costs to the project. At this time, funding for the improvements has not been identified. However, in the event funding is identified, the city is granting approval for the work to occur.

Sustainability

The ROW Encroachment Permit does not limit the ability of the city to reach the goals of the Ketchum Sustainability Action Plan – 2020. The applicant has provided a letter responding to the City's snowmelt system requirements for commercial projects that is included in Exhibit A of the Right-of-Way Encroachment Agreement. The proposed snowmelt system meets the snowmelt requirements for commercial projects.

Financial Impact

There is no financial requirement from the city for this action at this time.

Attachments

ROW Encroachment Agreement 22779

WHEN RECORDED, PLEASE RETURN TO:

**OFFICE OF THE CITY CLERK
CITY OF KETCHUM
POST OFFICE BOX 2315
KETCHUM, IDAHO 83340**

RIGHT-OF-WAY ENCROACHMENT AGREEMENT 22779

THIS AGREEMENT, made and entered into this ____ day of ____, 2022, by and between the CITY OF KETCHUM, IDAHO, a municipal corporation ("Ketchum"), whose address is Post Office Box 2315, Ketchum, Idaho 83340 and Greg Dunfield, representing 4% Bluebird Housing Partners LLC and GMD Development, whose address is 520 Pike Street, Seattle, WA 98101, and Charles Friedman, representing 4% Bluebird Housing Partners LLC and Ketchum Community Development Corporation (collectively referred to as "Owner"), whose address is whose address is Post O Box 6452, Ketchum Idaho, 83340.

RECITALS

WHEREAS, Owner wishes to permit the construction, installation, and placement of a hydronic snowmelt system, pavers, metal shades, window shade boxes, an irrigation line, and building foundation footings that are required for the development of the Bluebird Village Community Housing Project within the public rights-of-way on East Avenue, 5th Street, and the Ketchum Townsite Block 45 alleyway. These improvements are shown in Exhibit A attached hereto and incorporated herein (collectively referred to as the "Improvements") and are described in Exhibit B attached hereto.

WHEREAS, Ketchum finds that said Improvements will not impede the use of said public right-of-way at this time subject to the terms and provisions of this Agreement;

WHEREAS, the Owner will restore the street, alley, sidewalk, curb, and gutter and any landscaping back to the original condition acceptable to the Streets and Facilities Director;

NOW, THEREFORE, in contemplation of the above stated facts and objectives, it is hereby agreed as follows:

TERMS AND CONDITIONS

1. Ketchum shall permit Owner to construct, install, maintain, and repair the Improvements identified in Exhibit A within within the public rights-of-way on East Avenue, 5th Street, and the Ketchum Townsite Block 45 alleyway until notified by Ketchum to remove the infrastructure at which time Owner shall remove infrastructure at Owner's expense.

2. Owner shall be responsible for the maintenance of said Improvements and shall repair said improvements within 48 hours upon notice from Ketchum that repairs are needed.

3. Snowmelt systems installed in the public right-of-way shall be installed and operate at all times during the winter according to the following:
- The system shall meet the requirements of the International Energy Conservation Code (2018 IECC, 403.12.2)

- The system shall have an electronic main control board to operate the system that is programmable and optimizes the way the system functions.
- Installation of in-ground control sensors linked to the main control board that detect snow and ice on the surface, monitor the the sidewalk or driveway temperature, and automatically activates the system to be turned on or off based on the snow condition and air temperature.

4. Owner shall be responsible for restoring the alley, sidewalk, curb, and gutter and landscaping that is altered due to the construction and installation of the vault, to the satisfaction of the Director of Streets and Facilities.

5. In consideration of Ketchum allowing Owner to maintain the Improvements in the public right-of-way, Owner agrees to indemnify and hold harmless Ketchum from and against any and all claims of liability for any injury or damage to any person or property arising from the Improvements constructed, installed and maintained in the public right-of-way. Owner shall further indemnify and hold Ketchum harmless from and against any and all claims arising from any breach or default in the performance of any obligation on Owner's part to be performed under this Agreement, or arising from any negligence of Owner or Owner's agents, contractors or employees and from and against all costs, attorney's fees, expenses and liabilities incurred in the defense of any such action or proceeding brought thereon. In the event any action or proceeding is brought against Ketchum by reason of such claim, Owner, upon notice from Ketchum, shall defend Ketchum at Owner's expense by counsel satisfactory to Ketchum. Owner, as a material part of the consideration to Ketchum, hereby assumes all risk of damages to property or injury to persons in, upon or about the Improvements constructed, installed and maintained in the public right-of-way arising from the construction, installation and maintenance of said Improvements and Owner hereby waives all claims in respect thereof against Ketchum.

6. Ketchum shall not be liable for injury to Owner's business or loss of income therefrom or for damage which may be sustained by the person, goods, wares, merchandise or property of Owner, its tenants, employees, invitees, customers, agents or contractors or any other person in or about the Subject Property caused by or resulting from the Improvements constructed, installed, removed or maintained in the public right-of-way.

7. Owner understands and agrees that by maintaining the Improvements in the public right-of-way pursuant to this Agreement, Owner obtains no claim or interest in said public right-of-way which is adverse to that of Ketchum and that Owner obtains no exclusive right to said public right-of-way nor any other right to use the public right-of-way not specifically described herein.

8. In the event either party hereto retains an attorney to enforce any of the rights, duties and obligations arising out of this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party reasonable attorney's fees at the trial and appellate levels and, whether or not litigation is actually instituted.

9. This Agreement shall be governed by, construed, and enforced in accordance with the laws and decisions of the State of Idaho. Venue shall be in the District Court of the fifth Judicial District of the State of Idaho.

10. This Agreement sets forth the entire understanding of the parties hereto and shall not be changed or terminated orally. It is understood and agreed by the parties hereto that there are no verbal promises or implied promises, agreements, stipulations or other

representations of any kind or character pertaining to the Improvements maintained in the public right-of-way other than as set forth in this Agreement.

11. No presumption shall exist in favor of or against any party to this Agreement as the result of the drafting and preparation of this document.

12. This Agreement shall be recorded with the Blaine County Recorder by Ketchum.

13. The parties fully understand all of the provisions of this Agreement, and believe them to be fair, just, adequate, and reasonable, and accordingly accept the provisions of this Agreement freely and voluntarily.

OWNER:

CITY OF KETCHUM:

By: ID 4% Bluebird KCDC LLC,
an Idaho limited liability company
its Managing Member

By: _____
Neil Bradshaw
Its: Mayor

By: Ketchum Community Development Corporation
an Idaho nonprofit corporation
its Sole Member and Manager

By: _____
Name: Charles Friedman
Its: Executive Director

By: ID 4% Bluebird GMD LLC,
an Idaho limited liability company
its Non-Managing Member

By: GMD Development LLC
A Washington limited liability company
Its Sole Member and Manager

By: _____
Name: Gregory M. Dunfield
Its: Manager

STATE OF _____,)
County of _____) ss.

On this ____ day of _____, 2022, before me, the undersigned Notary Public in and for said State, personally appeared Charles Friedman, known or identified to me to be the Managing Member of 4% Bluebird KCDC LCC, and the person who executed the foregoing instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Notary Public for _____
Residing at _____
Commission expires _____

STATE OF _____,)
) ss.
County of _____)

On this ____ day of _____, 2022, before me, the undersigned Notary Public in and for said State, personally appeared Gregory M. Dunfield, known or identified to me to be the Non-Managing Member of 4% Bluebird GMD LLC, and the person who executed the foregoing instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Notary Public for _____
Residing at _____
Commission expires _____

STATE OF IDAHO)
) ss.
County of Blaine)

On this ____ day of _____, 2022, before me, the undersigned Notary Public in and for said State, personally appeared NEIL BRADSHAW, known or identified to me to be the Mayor of the CITY OF KETCHUM, IDAHO, and the person who executed the foregoing instrument on behalf of said municipal corporation and acknowledged to me that said municipal corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the day and year in this certificate first above written.

Notary Public for _____
Residing at _____
Commission expires _____

EXHIBIT A

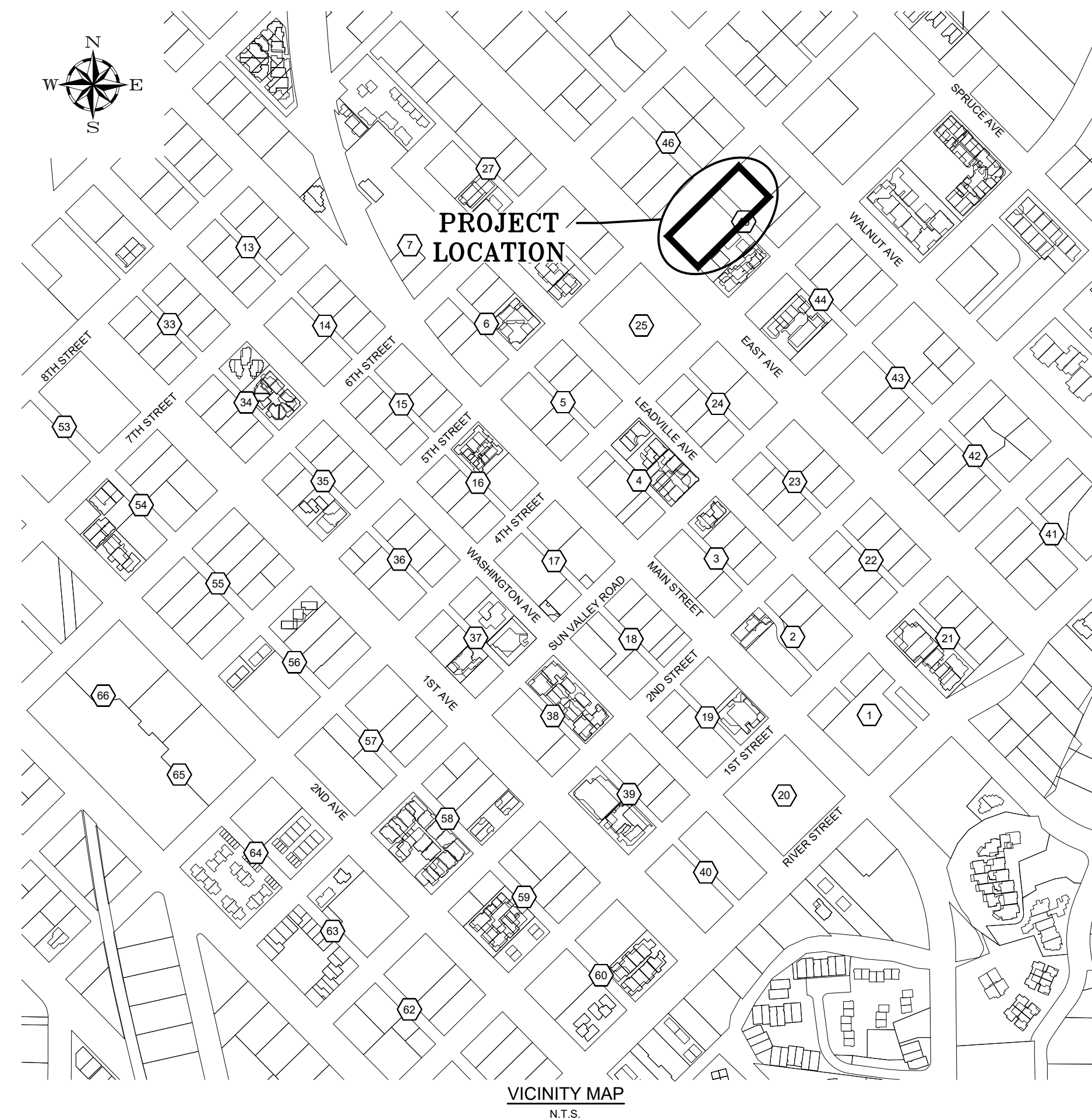
BLUEBIRD VILLAGE

CITY OF KETCHUM, BLAINE COUNTY, IDAHO

JULY 2022

CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE "IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION" (ISPMC) AND CITY OF KETCHUM STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND KEEPING A COPY OF THE ISPMC AND CITY OF KETCHUM STANDARDS ON SITE DURING CONSTRUCTION.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS IN AN APPROXIMATE WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING UTILITIES PRIOR TO COMMENCING AND DURING THE CONSTRUCTION. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH RESULT FROM HIS FAILURE TO ACCURATELY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL CALL DIGLINE (1-800-342-1585) TO LOCATE ALL EXISTING UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS IN ADVANCE OF EXCAVATION.
- CONTRACTOR SHALL COORDINATE RELOCATIONS OF DRY UTILITY FACILITIES (POWER, CABLE, PHONE, TV) WITH THE APPROPRIATE UTILITY FRANCHISE.
- THE CONTRACTOR SHALL CLEAN UP THE SITE AFTER CONSTRUCTION SO THAT IT IS IN A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION (THIS MAY INCLUDE ENCROACHMENT PERMITS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) PERMIT COVERAGE).
- ALL CLEARING & GRUBBING SHALL CONFORM TO ISPMC SECTION 201.
- ALL EXCAVATION & EMBANKMENT SHALL CONFORM TO ISPMC SECTION 202. SUBGRADE SHALL BE EXCAVATED AND SHAPED TO LINE, GRADE, AND CROSS-SECTION SHOWN ON THE PLANS. THE SUBGRADE SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-698. THE CONTRACTOR SHALL WATER OR AERATE SUBGRADE AS NECESSARY TO OBTAIN OPTIMUM MOISTURE CONTENT. IN-LIEU OF DENSITY MEASUREMENTS, THE SUBGRADE MAY BE PROOF-ROLLED TO THE APPROVAL OF THE ENGINEER.
 - PROOF-ROLLING:** AFTER EXCAVATION TO THE SUBGRADE ELEVATION AND PRIOR TO PLACING COURSE GRAVEL, THE CONTRACTOR SHALL PROOF ROLL THE SUBGRADE WITH A 5-TON SMOOTH DRUM ROLLER, LOADED WATER TRUCK, OR LOADED DUMP TRUCK, AS ACCEPTED BY THE ENGINEER. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF UNSUITABLE SUBGRADE MATERIAL AREAS, AND/OR AREAS NOT CAPABLE OF COMPACTION ACCORDING TO THESE SPECIFICATIONS. UNSUITABLE OR DAMAGED SUBGRADE IS WHEN THE SOIL MOVES, PUMPS AND/OR DISPLACES UNDER ANY TYPE OF PRESSURE INCLUDING FOOT TRAFFIC LOADS.
 - IF, IN THE OPINION OF THE ENGINEER, THE CONTRACTOR'S OPERATIONS RESULT IN DAMAGE TO, OR PROTECTION OF, THE SUBGRADE, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR THE DAMAGED SUBGRADE BY OVER-EXCAVATION OF UNSUITABLE MATERIAL TO FIRM SUBSOIL, LINE EXCAVATION WITH GEOTEXTILE FABRIC, AND BACKFILL WITH PIT RUN GRAVEL.
- ALL 2" MINUS GRAVEL SHALL CONFORM TO ISPMC 802, TYPE II (ITD STANDARD 703.04, 2"), SHALL BE PLACED IN CONFORMANCE WITH ISPMC SECTION 801 AND COMPACTED PER SECTION 202. MINIMUM COMPACTION OF PLACED MATERIAL SHALL BE 90% OF MAXIMUM LABORATORY DENSITY AS DETERMINED BY AASHTO T-99.
- ALL 3/4" MINUS CRUSHED GRAVEL SHALL CONFORM TO ISPMC 802, TYPE I (ITD STANDARD 703.04, 3/4" B), SHALL BE PLACED IN CONFORMANCE WITH ISPMC SECTION 802 AND COMPACTED PER SECTION 202. MINIMUM COMPACTION OF PLACED MATERIAL SHALL BE 95% OF MAXIMUM LABORATORY DENSITY AS DETERMINED BY AASHTO T-99 OR ITD T-91.
- ALL ASPHALTIC CONCRETE PAVEMENT WORK SHALL CONFORM TO ISPMC SECTION(S) 805, 810, AND 811 FOR CLASS II PAVEMENT. ASPHALT AGGREGATE SHALL BE 1/2" (13MM) NOMINAL SIZE CONFORMING TO TABLE 803B IN ISPMC SECTION 803. ASPHALT BINDER SHALL BE PG 58-28 CONFORMING TO TABLE A-1 IN ISPMC SECTION 805.
- ASPHALT SAWCUTS SHALL BE AS INDICATED ON THE DRAWINGS, OR 24" INCHES FROM EDGE OF EXISTING ASPHALT, IF NOT INDICATED OTHERWISE SO AS TO PROVIDE A CLEAN PAVEMENT EDGE FOR MATCHING. NO WHEEL CUTTING SHALL BE ALLOWED.
- TRAFFIC CONTROL SHALL BE PER THE TRAFFIC CONTROL PLAN. CONTRACTOR WILL NEED TO MAINTAIN ACCESS TO ALL PRIVATE PROPERTIES, UNLESS OTHERWISE COORDINATE WITH THE PROPERTY OWNER THROUGH THE CITY ENGINEER.
- ALL CONCRETE WORK SHALL CONFORM TO ISPMC SECTIONS 701, 703, AND 705. ALL CONCRETE SHALL BE 3,000 PSI MINIMUM, 28 DAY, AS DEFINED IN ISPMC SECTION 703, TABLE 1. IMMEDIATELY AFTER PLACEMENT PROTECT CONCRETE BY APPLYING MEMBRANE-FORMING CURING COMPOUND, TYPE 2, CLASS A PER ASTM C 309-94. APPLY CURING COMPOUND PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS.
- ALL TRENCHING SHALL CONFORM TO ISPMC STANDARD DRAWING SD-301. TRENCHES SHALL BE BACKFILLED AND COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
- PER IDAHO CODE § 55-1613, THE CONTRACTOR SHALL RETAIN AND PROTECT ALL MONUMENTS, ACCESSORIES TO CORNERS, BENCHMARKS AND POINTS SET IN CONTROL SURVEYS; ALL MONUMENTS, ACCESSORIES TO CORNERS, BENCHMARKS AND POINTS SET IN CONTROL SURVEYS THAT ARE LOST OR DISTURBED BY CONSTRUCTION SHALL BE REESTABLISHED AND RE-MONUMENTED, AT THE EXPENSE OF THE AGENCY OR PERSON CAUSING THEIR LOSS OR DISTURBANCE AT THEIR ORIGINAL LOCATION OR BY SETTING OF A WITNESS CORNER OR REFERENCE POINT OR A REPLACEMENT BENCHMARK OR CONTROL POINT, BY OR UNDER THE DIRECTION OF A PROFESSIONAL LAND SURVEYOR.
- CONSTRUCTION OF WATER MAINS AND ALL OTHER RELATED APPURTENANCES SHALL BE IN ACCORDANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPMC), IDAPA 58.01.08, IDAHO RULES FOR PUBLIC DRINKING WATER SYSTEMS AND THE CITY OF KETCHUM UTILITIES DEPARTMENT STANDARDS.
- CONTRACTOR SHALL PRESSURE TEST, DISINFECT, AND CONDUCT BIOLOGICAL TESTING IN ACCORDANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPMC), AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS, AND THE PRESSURE TESTING, DISINFECTION, AND MICROBIOLOGICAL TESTING PROCEDURES.
- ALL WATER SUPPLY FIXTURES, FITTINGS, PIPING, AND ALL RELATED APPURTENANCES SHALL BE ANSI/NSF STD. 61 COMPLIANT.
- ALL WATER SUPPLY FIXTURES, FITTINGS, PIPING, AND ALL RELATED APPURTENANCES SHALL COMPLY WITH THE LOW LEAD ACT REQUIRING ALL MATERIALS TO HAVE A LEAD CONTENT EQUAL TO OR LESS THAN 0.25%.
- THE CONTRACTOR SHALL USE ANSI/NSF STANDARD 60 CHEMICALS AND COMPOUNDS DURING INSTALLATION & DISINFECTION OF POTABLE WATER MAIN.
- EXISTING CONDITIONS AND BOUNDARY INFORMATION SHOWN HEREON ARE PER A SURVEY CONDUCTED BY GALENA ENGINEERING. TOPOGRAPHIC INFORMATION IS AS IT EXISTED ON THE DATE THE FIELD SURVEY WAS PERFORMED (05/22/19).
- DOCUMENTATION OF TESTING FOR WORK IN ROW MEETING SECTION 12.04.040 D WILL BE REQUIRED FOR ASPHALT, CONCRETE, AND BASE MATERIALS AND WILL BE NECESSARY FOR C OF O.



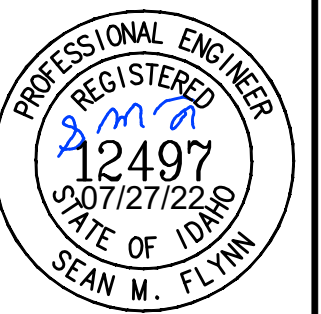
SHEET INDEX

SHEET#	DESCRIPTION
C0.1	COVER SHEET
C0.2	DETAIL SHEET
C0.3	DETAIL SHEET
C0.4	SURVEY
C1.0	GRADING, DRAINAGE, AND UTILITY PLAN

COVER SHEET
BLUEBIRD VILLAGE
(480 N EAST AVE)

LOCATED WITHIN SECTION 18, T.4 N., R.18 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR GMD DEVELOPMENT, LLC

PROJECT INFORMATION
P:\ashley\96060\proj\Construction\0600 Engineer 2022-07-18.dwg 07/27/22 10:14:59 AM



DESIGNED BY
CT
DRAWN BY
SMF
CHECKED BY

GALENA
ENGINEERING, INC.
Civil Engineers & Land Surveyors
317 N. River Street
Halley, Idaho 83333
(208) 768-1705
email: galena@galena-engineering.com

LEGEND

EXISTING ITEMS

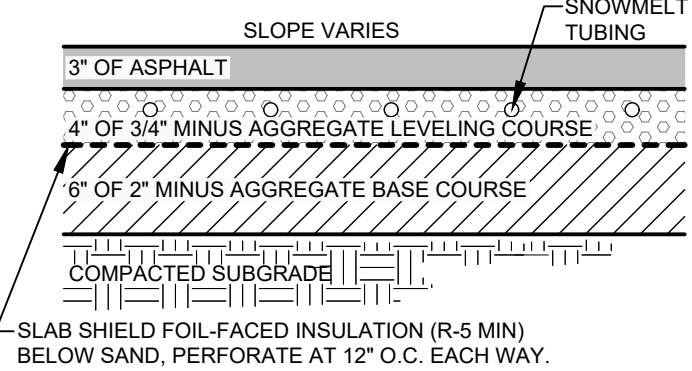
	Property Line		PB = Buried Power Line		AP = Angle Point
	Adjoiner's Lot Line		Overhead Power Line		BEG = Beginning
	Centerline		Light		BS = Bottom of Step
	Idaho Power Easement		PBOX = Power Box		CC = Curb Cut
	FD5/8 = Found 5/8" Rebar		PP = Power Pole		CL = Centerline
	FD1/2 = Found 1/2" Rebar		EVAULT = Power Vault		COR = Corner
	CNTRL = Survey Control		QUT = Power Outlet		EOA = Edge of Asphalt
	5' Contour Interval		S = Sewer Main		EOC = Edge of Concrete
	1' Contour Interval		SS = Sewer Service		EOP = Edge of Pavers
	Curb & Gutter		SMH = Sewer Manhole		FFE = Finished Floor @ Entry
	FNC = Fence Line		RD = Roof Drain		GFF = Garage Finished Floor
	Building		SD = Storm Drain		IC = Illegible Cap
	Asphalt		DWELL = Dry Well		LIP = Lip of Gutter
	Boll = Bollard		Ketchum City Line (8")		LP = Low Point
	SGN = Sign		Abandoned Ketchum Spring Line (10")		NC = No Cap
	GM = Gas Main		Abandoned Ketchum Spring Line (4")		NG = Natural Ground
	TVB = Cable TV Buried		Abandoned Water Service		PC = Point of Curvature
	TVBOX = Cable TV Riser		WMTR = Water Meter		PT = Point of Tangent
	PHB = Buried Telephone Line		WF = Water Valve		TA = Top of Asphalt
	PHBOX = Telephone Riser		M = Water Meter		TBC = Top Back of Curb
	SYR MH = Syringa Manhole		H = Hand Rail		TBRC = Top Back of Rolled Curb
			F = Fire Hydrant		TBVC = Top Back of Vertical Curb
			V = Water Valve		TC = Top of Concrete
					TP = Top of Pavers
					TS = Top of Step

PROPOSED ITEMS

	NEW ASPHALT		DRYWELL
	CONCRETE SIDEWALK		STORM DRAIN CATCH BASIN
	ADA COMPLIANT RAMP		SAWCUT LINE
	CONCRETE 6" ROLLED C & G		APPROXIMATE LIMITS OF DISTURBANCE
	ROLLED CURB W/ VERTICAL CURB		ROAD PAINT
	CURB TRANSITION ZERO REVEAL TO 6" ROLLED CURB		GRADE
	ZERO REVEAL CURB & GUTTER		SPOT ELEVATION
	REVERSE PAN ROLLED CURB & GUTTER		STREET LIGHT
	CURB TRANSITION REVERSE PAN ROLLED TO 6" VERTICAL C & G		6" WATER SERVICE
	ADA ACCESS TRUNCATED DOME		WATER METER
	SIGN		WATER MAIN FITTINGS W/ THRUST BLOCKS
	FIRE HYDRANT		WATER VALVE
	WATER VALVE		4" PVC SEWER SERVICE
	HAND RAIL		UTILITY SCREEN
	5' CONTOUR INTERVAL		
	1' CONTOUR INTERVAL		
	PAVERS		

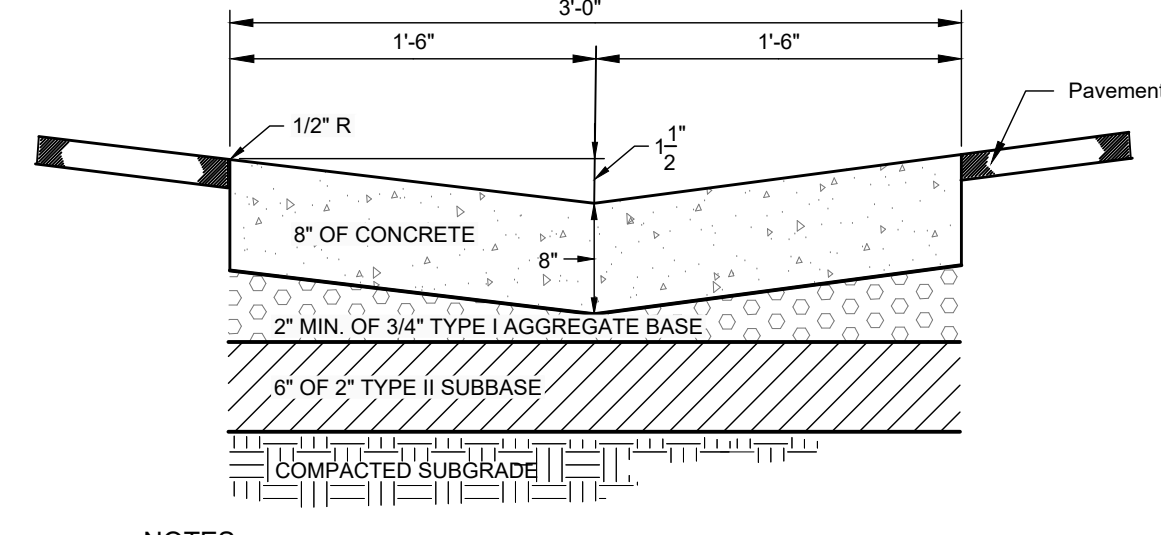
NO.	DATE	BY	REVISIONS
1	04/04/22	SMF	ADDENDUM #1 SET
2	05/04/22	SMF	ADDENDUM #2 SET
3	06/13/22	SMF	CITY SECOND ROUND COMMENTS
4	07/27/22	SMF	RELOCATE STORM STRUCTURES DUE TO STRUCTURAL FOOTING PLAN
5			CITY THIRD ROUND COMMENTS

5



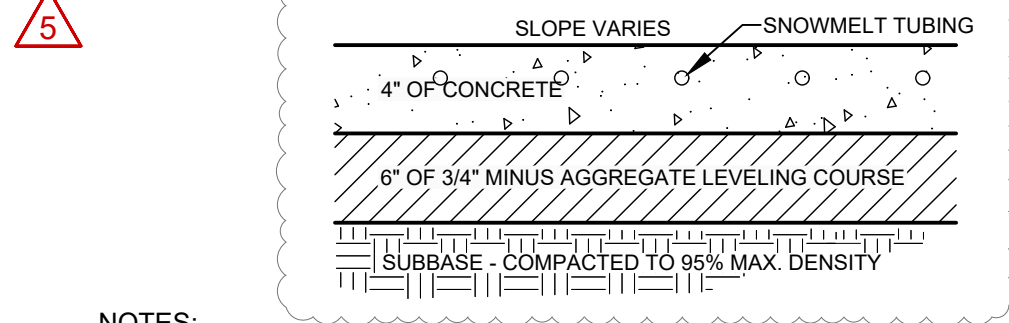
- NOTES:
- SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.

1b
C0.2 **TYPICAL HEATED ASPHALT SECTION**
N.T.S.



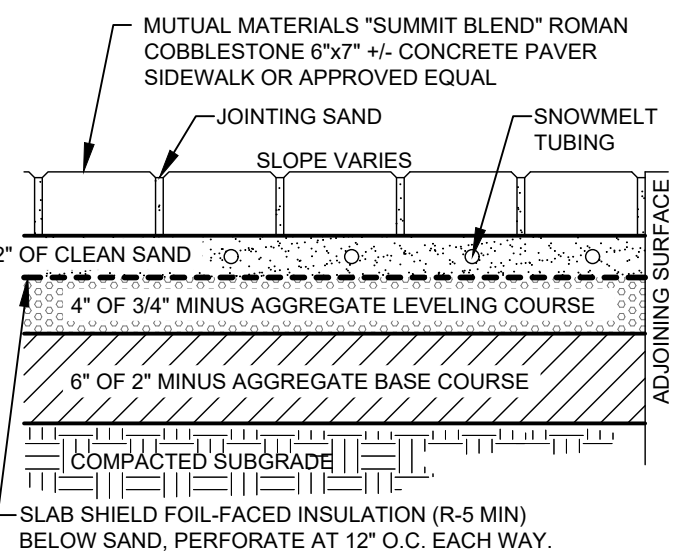
- NOTES:
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 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
 - 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADI.
 - CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM SPACING.

2d
C0.2 **36" CONCRETE VALLEY GUTTER**
N.T.S.

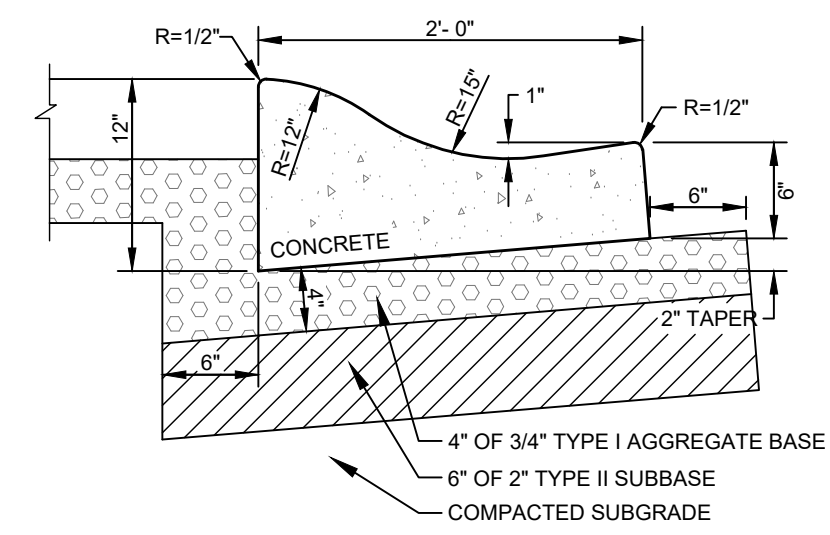


- NOTES:
- 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADI.
 - CONTINUOUS PLACEMENT PREFERRED, SCORE AT INTERVALS TO MATCH WIDTH OF WALK NOT TO EXCEED 5 FEET SPACING.
 - 1/2" TRANSVERSE PREFORMED BITUMINOUS JOINTS AT THE TERMINUS POINTS FOR CURVE AND WHERE SIDEWALK IS PLACED BETWEEN TWO PERMANENT FOUNDATIONS.
 - MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH ISPCW SPECIFICATIONS.

3a
C0.2 **TYPICAL CONCRETE SIDEWALK SECTION**
N.T.S.

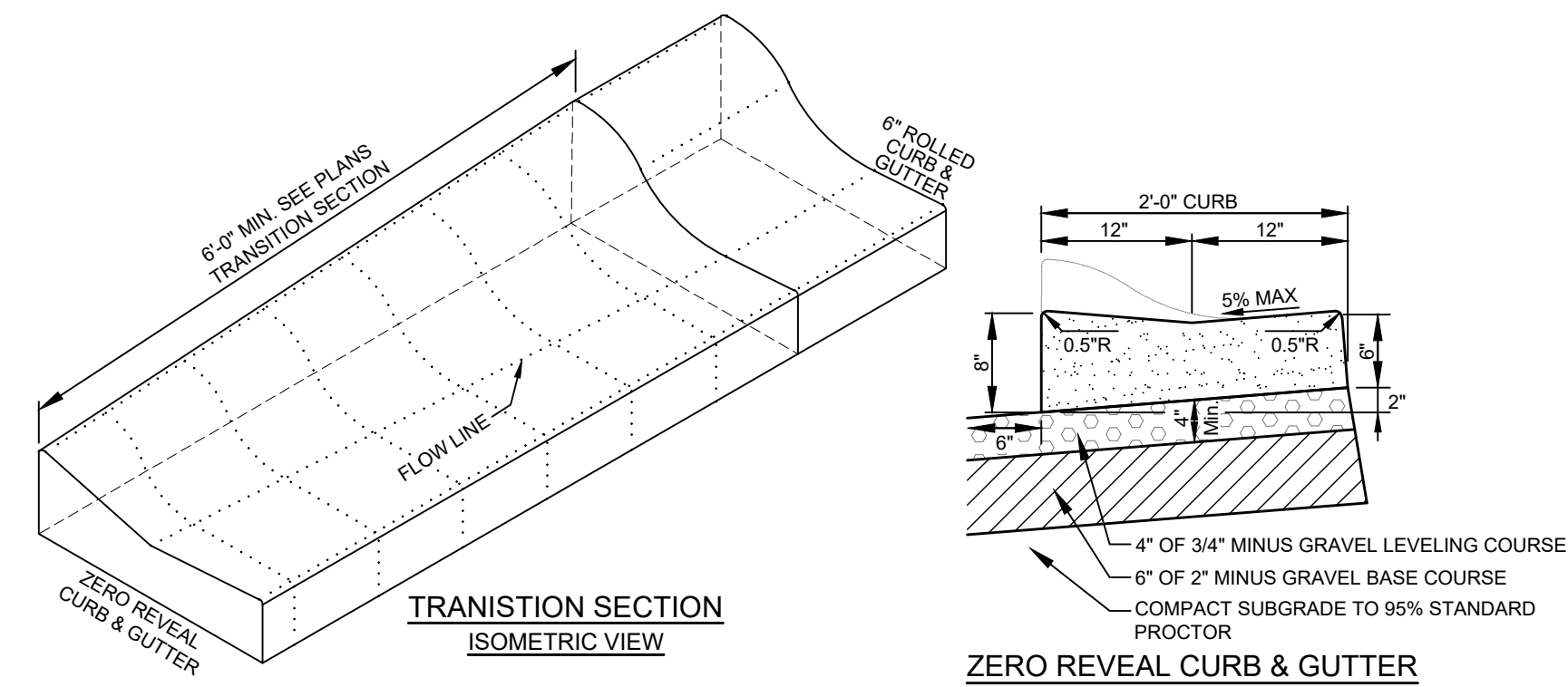


3b
C0.2 **HEATED PAVER SIDEWALK SECTION**
N.T.S.



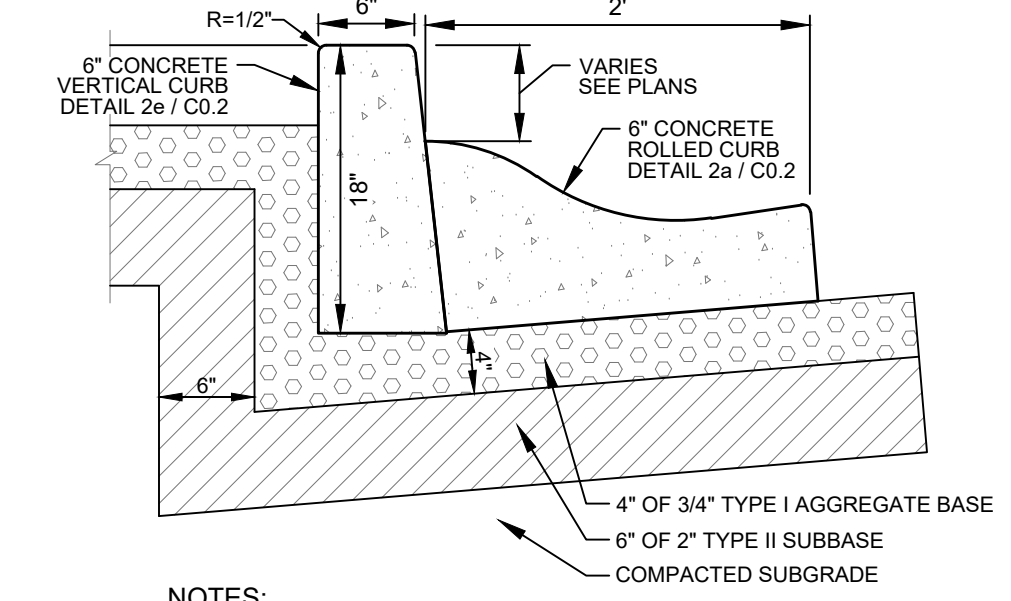
- NOTES:
- SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
 - 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADI.
 - CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM SPACING (8-FEET WISIDEWALK).

2a
C0.2 **6" CONCRETE ROLLED CURB & GUTTER**
N.T.S.



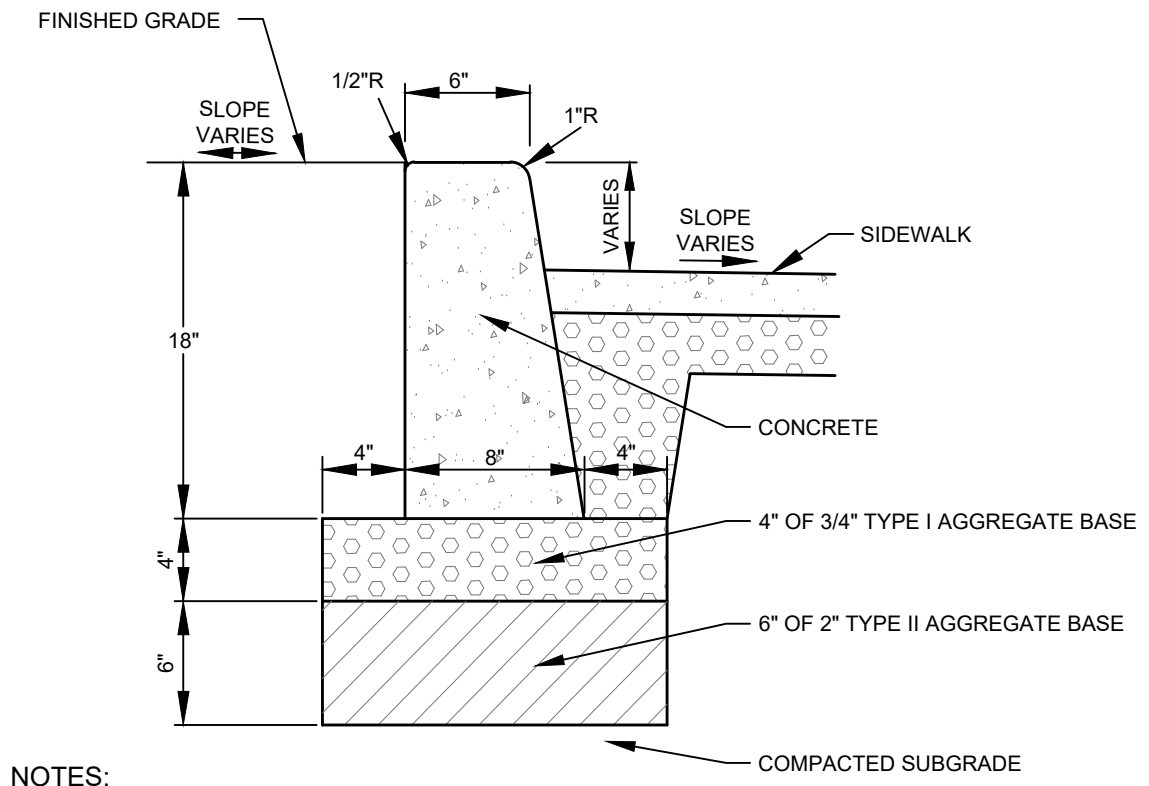
- NOTES:
- 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADI.
 - CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS TO MATCH SIDEWALK WITH 10-FEET MAXIMUM SPACING.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.

2b
C0.2 **TYPICAL ROLLED CURB TRANSITION DETAIL**
N.T.S.



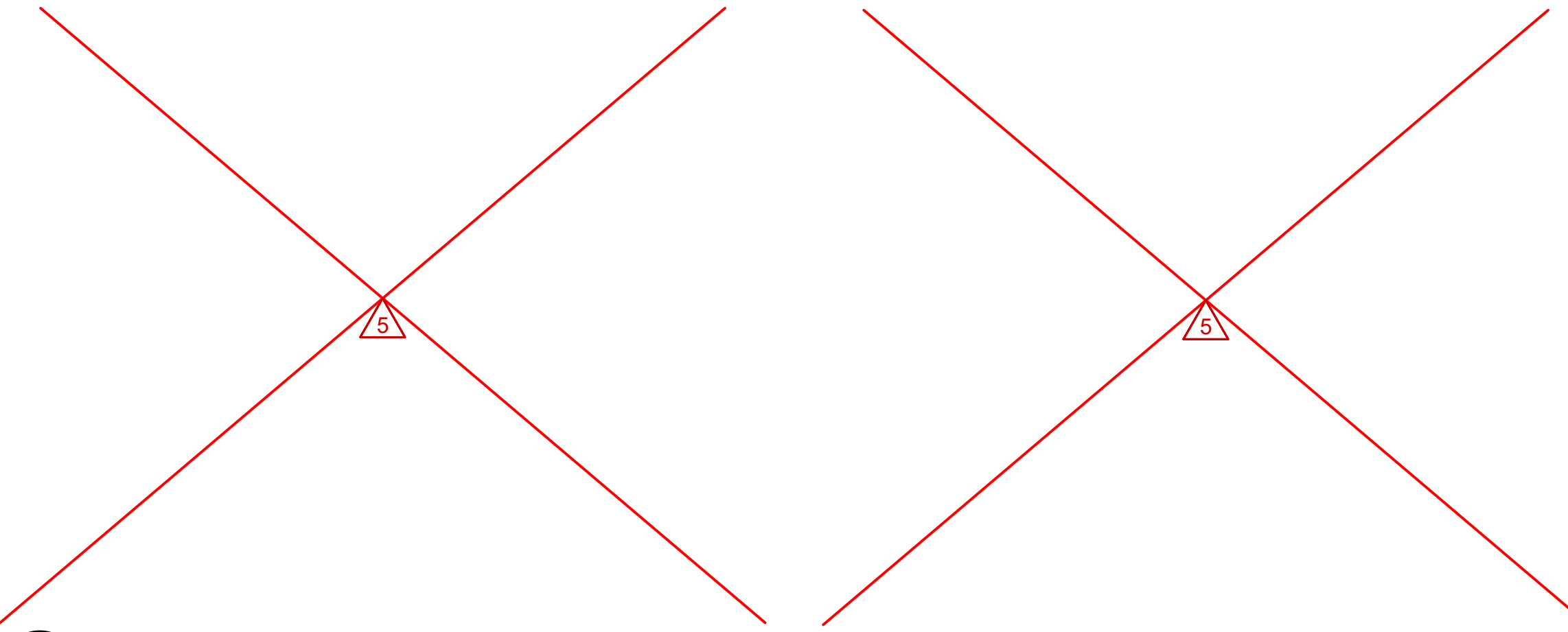
- NOTES:
- SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE.
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 - 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADI.
 - CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM SPACING (8-FEET WISIDEWALK).

2c
C0.2 **6" CONCRETE ROLLED CURB WITH VARIABLE HEIGHT VERTICAL CURB**
N.T.S.



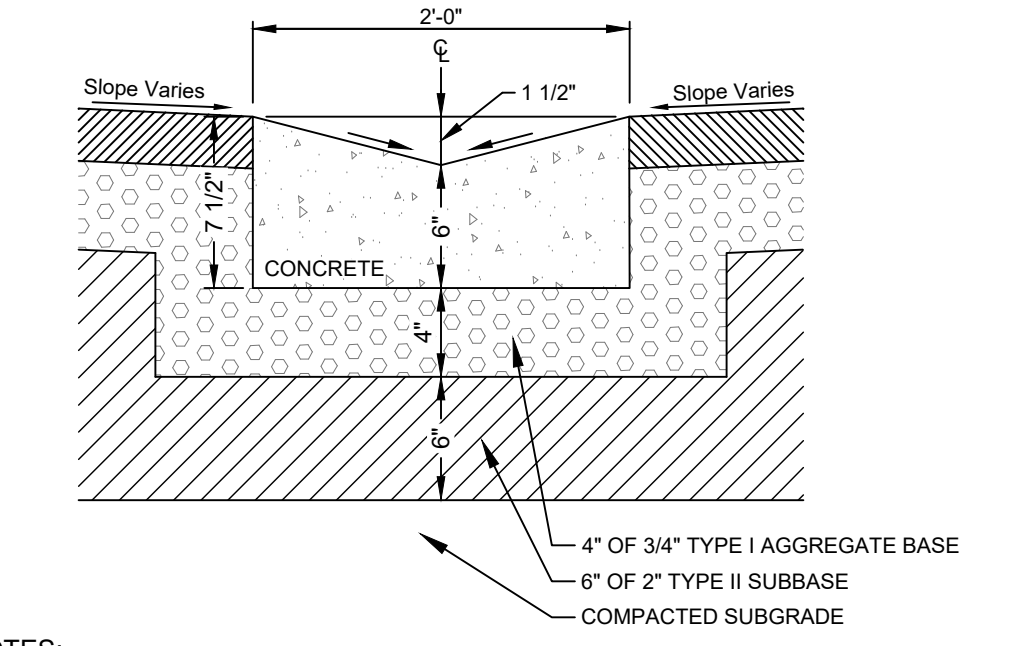
- NOTES:
- SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
 - 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADI.
 - CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM SPACING (8-FEET WISIDEWALK).

2e
C0.2 **CONCRETE VERTICAL CURB**
N.T.S.



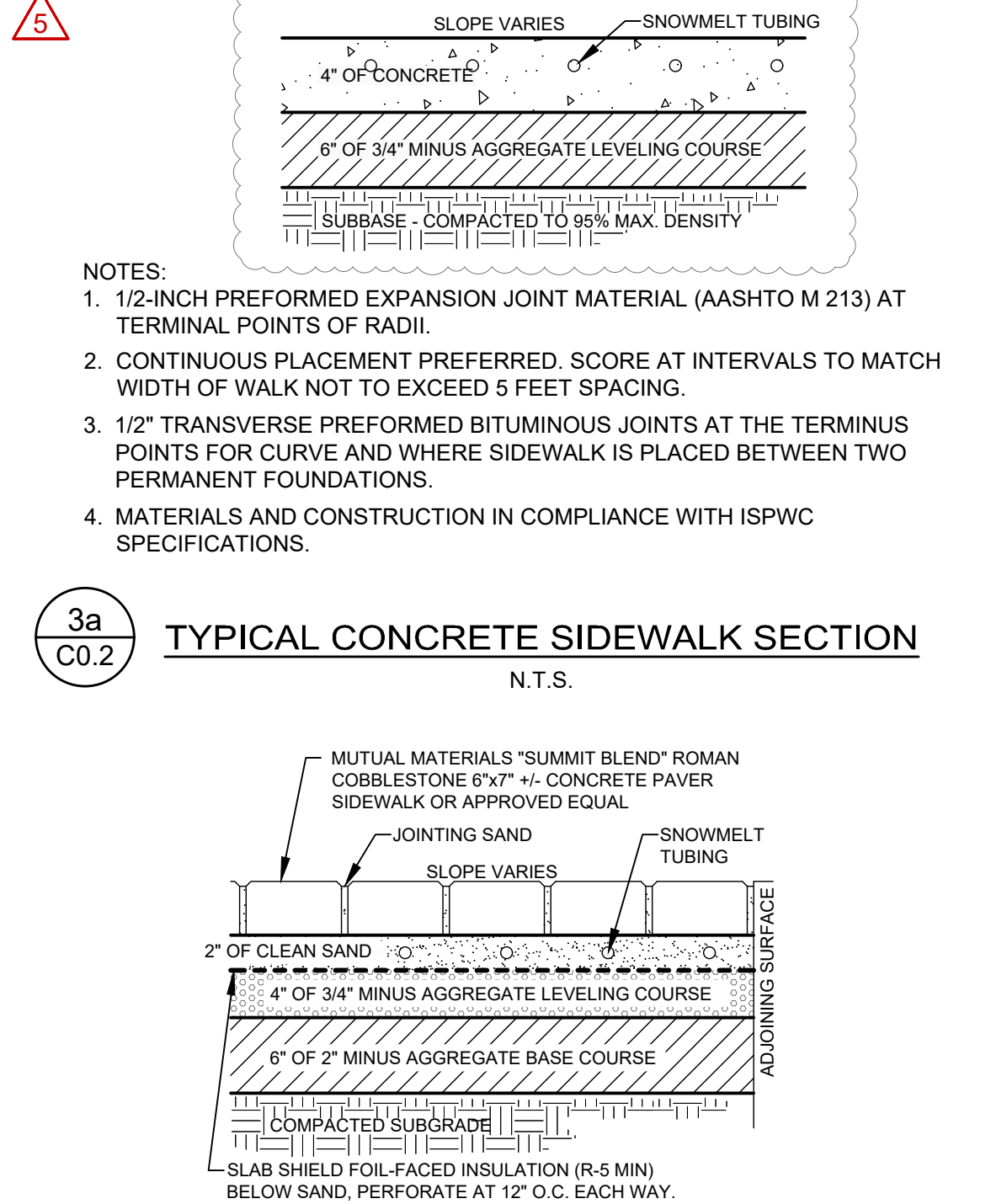
2f
C0.2 **6" CONCRETE REVERSE GUTTER PAN ROLLED CURB & GUTTER**
N.T.S.

2g
C0.2 **ZERO REVEAL CURB WITH REVERSE GUTTER PAN**
N.T.S.



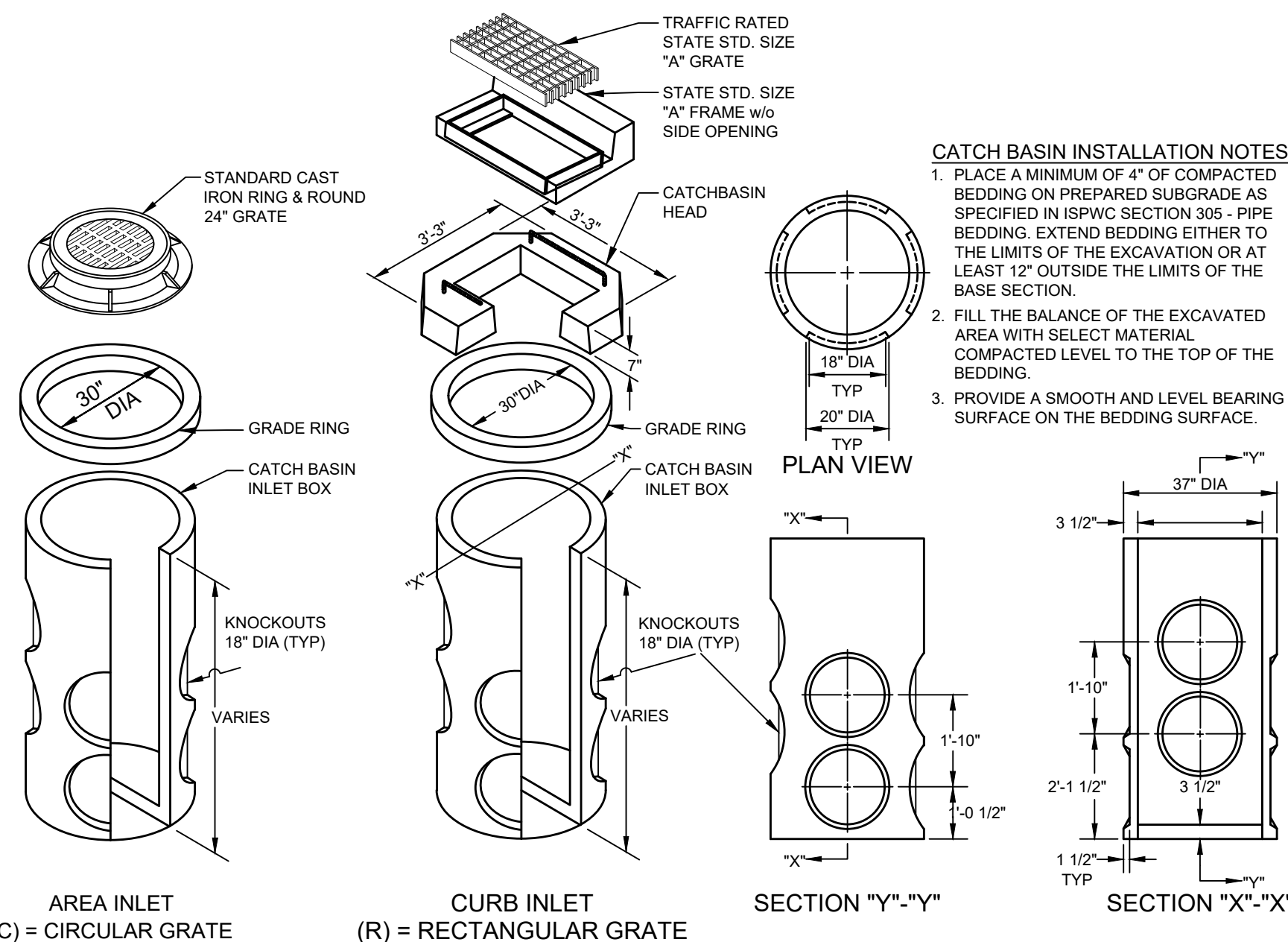
- NOTES:
- SUBBASE CAN BE 2" TYPE II OR 3/4" TYPE I CRUSHED AGGREGATE BASE COURSE.
 - MATERIALS SHALL CONFORM WITH CURRENT ISPCW STANDARDS, DIVISION 800 AGGREGATES AND ASPHALT.
 - PAVEMENT SECTION MAY BE MODIFIED IF A PROJECT SPECIFIC GEOTECHNICAL REPORT, STAMPED BY A LICENSED ENGINEER, IS PROVIDED.
 - 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADI.
 - CONTINUOUS PLACEMENT PREFERRED, SCORE INTERVALS 10-FEET MAXIMUM SPACING (8-FEET WISIDEWALK).

2h
C0.2 **24" WIDE CONCRETE VALLEY GUTTER**
N.T.S.



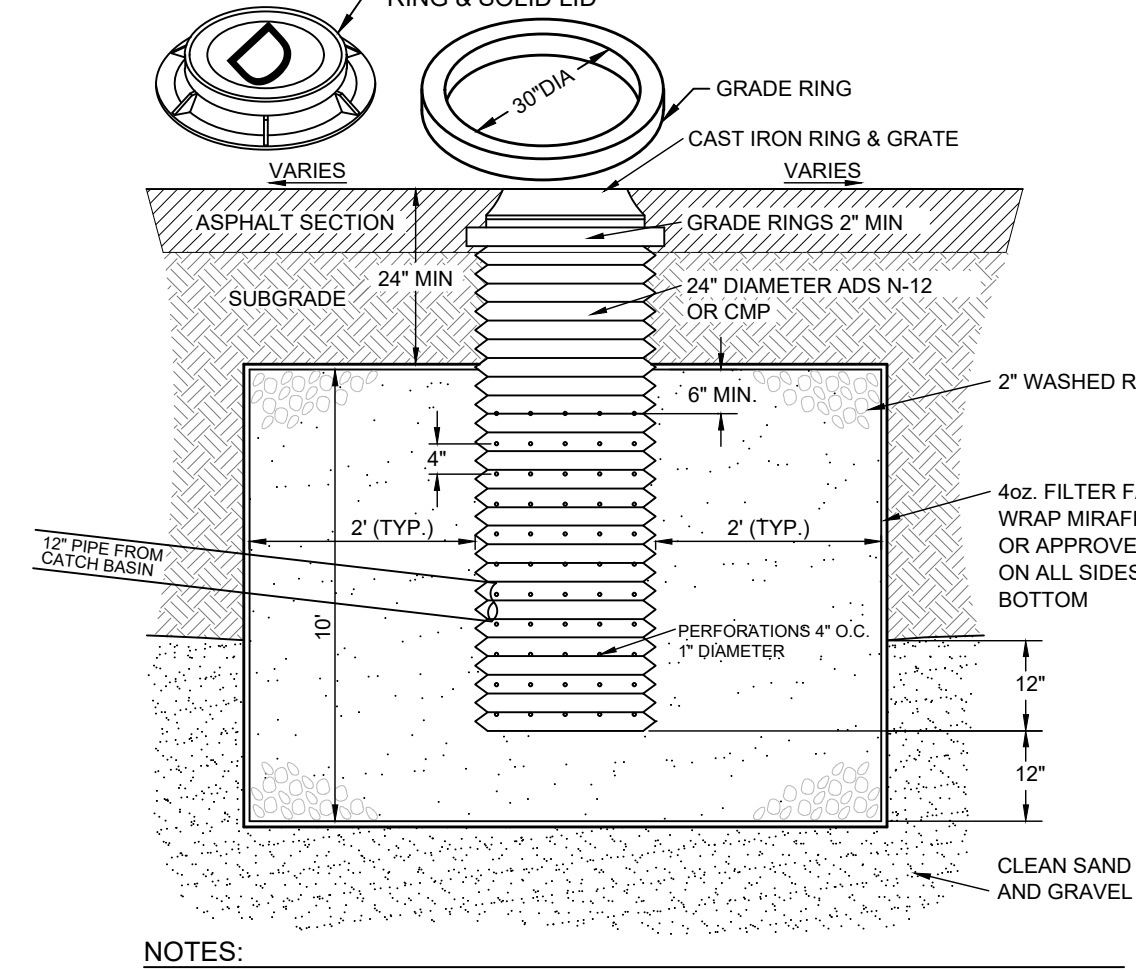
- NOTES:
- 1/2-INCH PREFORMED EXPANSION JOINT MATERIAL (AASHTO M 213) AT TERMINAL POINTS OF RADI.
 - CONTINUOUS PLACEMENT PREFERRED, SCORE AT INTERVALS TO MATCH WIDTH OF WALK NOT TO EXCEED 5 FEET SPACING.
 - 1/2" TRANSVERSE PREFORMED BITUMINOUS JOINTS AT THE TERMINUS POINTS FOR CURVE AND WHERE SIDEWALK IS PLACED BETWEEN TWO PERMANENT FOUNDATIONS.
 - MATERIALS AND CONSTRUCTION IN COMPLIANCE WITH ISPCW SPECIFICATIONS.

4
C0.2 **THICKENED SIDEWALK EDGE**
N.T.S.



- CATCH BASIN INSTALLATION NOTES:
- PLACE A MINIMUM OF 4" OF COMPACTED BEDDING ON PREPARED SUBGRADE AS SPECIFIED IN ISPCW SECTION 305 - PIPE BEDDING. EXTEND BEDDING EITHER TO THE LIMITS OF THE EXCAVATION OR AT LEAST 12" OUTSIDE THE LIMITS OF THE BASE SECTION.
 - FILL THE BALANCE OF THE EXCAVATED AREA WITH SELECT MATERIAL COMPACTED LEVEL TO THE TOP OF THE BEDDING.
 - PROVIDE A SMOOTH AND LEVEL BEARING SURFACE ON THE BEDDING SURFACE.

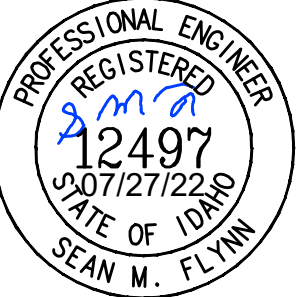
5
C0.2 **30" DIAMETER CATCH BASIN**
N.T.S.



- NOTES:
- THE BED SHALL BE EXCAVATED A MINIMUM OF 24" INTO CLEAN SAND AND GRAVEL.
 - MAXIMUM DEPTH SHALL NOT EXCEED 12 FEET.
 - IF CLEAN SAND AND GRAVEL IS NOT ENCOUNTERED WITHIN 12 FEET, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER.
 - GRATE OR SOLID LID AS APPROVED BY CITY OF KETCHUM.

6
C0.2 **DRYWELL DETAIL (6" Ø)**
N.T.S.

DETAIL SHEET
BLUEBIRD VILLAGE
(480 N EAST AVE)
LOCATED WITHIN SECTION 18, T.4 N., R.18 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR GMD DEVELOPMENT, LLC



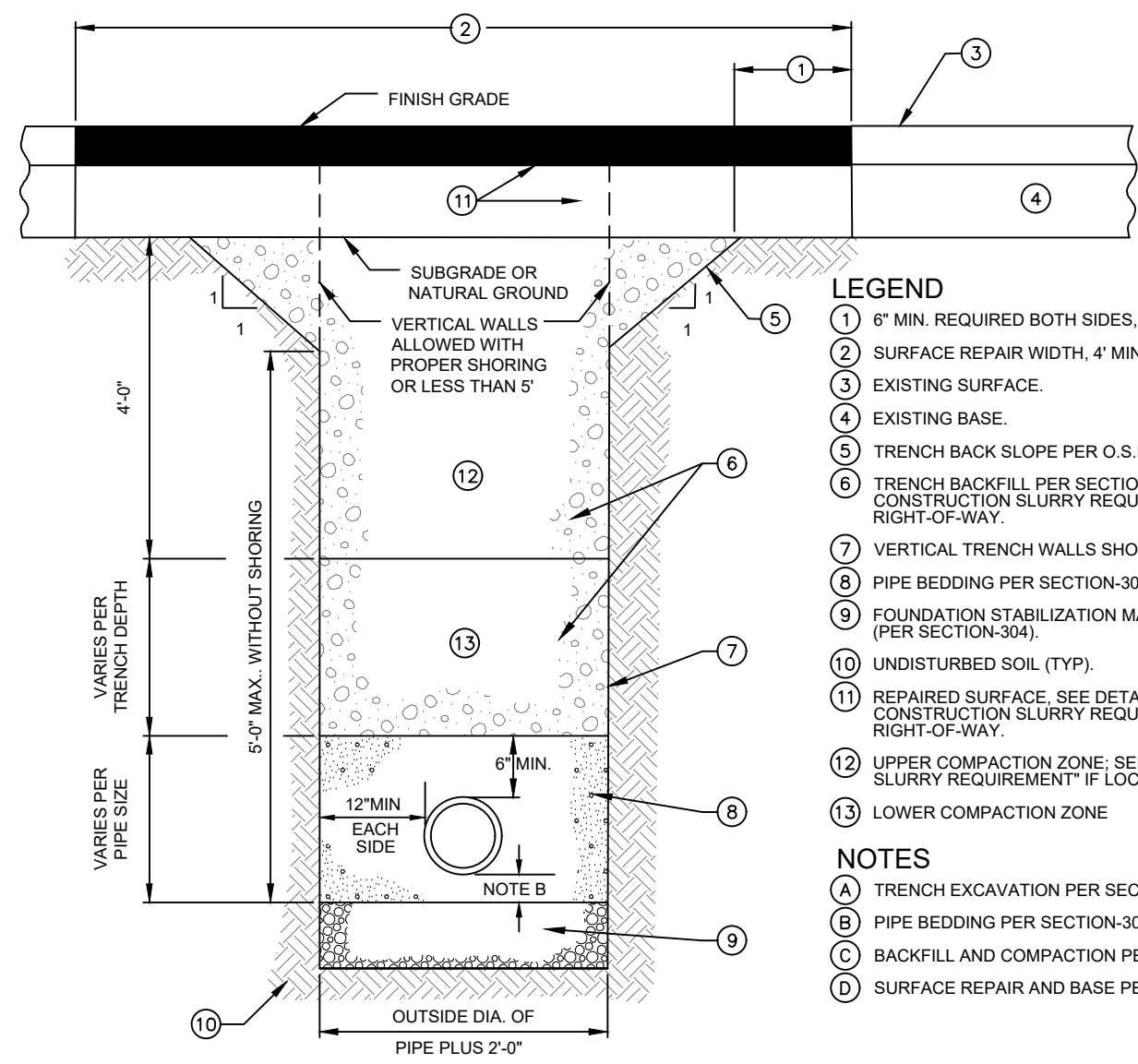
DESIGNED BY
CT
DRAWN BY
SMF
CHECKED BY

GALENA
ENGINEERING, INC.
Civil Engineers & Land Surveyors
317 N. River Street
Halley, Idaho 83333
(208) 768-1705
email: galena@galena-engineering.com

NO.	DATE	BY	REVISIONS
1	04/04/22	SMF	ADDENDUM #1 SET
2	05/04/22	SMF	ADDENDUM #2 SET
3	06/13/22	SMF	CITY SECOND ROUND COMMENTS
4	07/27/22	SMF	RELOCATE STORM STRUCTURES DUE TO STRUCTURAL FOOTING PLAN
5			CITY THIRD ROUND COMMENTS

C0.2

REUSE OF DRAWINGS: These drawings, or any portion thereof, shall not be used on any project or extension of this project except by agreement in writing with Galeana Engineering, Inc.



- LEGEND**
- 6" MIN. REQUIRED BOTH SIDES, SAWCUT REQUIRED.
 - SURFACE REPAIR WIDTH, 4" MINIMUM.
 - EXISTING SURFACE.
 - EXISTING BASE.
 - TRENCH BACK SLOPE PER O.S.H.A. OR SUITABLE SHORING.
 - TRENCH BACKFILL PER SECTION 306, OR SEE "KETCHUM PUBLIC CONSTRUCTION SLURRY REQUIREMENT" IF LOCATED WITHIN PUBLIC RIGHT-OF-WAY.
 - VERTICAL TRENCH WALLS SHORING PER O.S.H.A.
 - PIPE BEDDING PER SECTION 305 (SEE SD-302).
 - FOUNDATION STABILIZATION MAY VARY PER SOIL TYPE AND STABILITY (PER SECTION 304).
 - UNDISTURBED SOIL (TYP).
 - REPAIRED SURFACE. SEE DETAILS 1 AND 2. SEE "KETCHUM PUBLIC CONSTRUCTION SLURRY REQUIREMENT" IF LOCATED WITHIN PUBLIC RIGHT-OF-WAY.
 - UPPER COMPACTION ZONE. SEE "KETCHUM PUBLIC CONSTRUCTION SLURRY REQUIREMENT" IF LOCATED WITHIN PUBLIC RIGHT-OF-WAY.
 - LOWER COMPACTION ZONE.

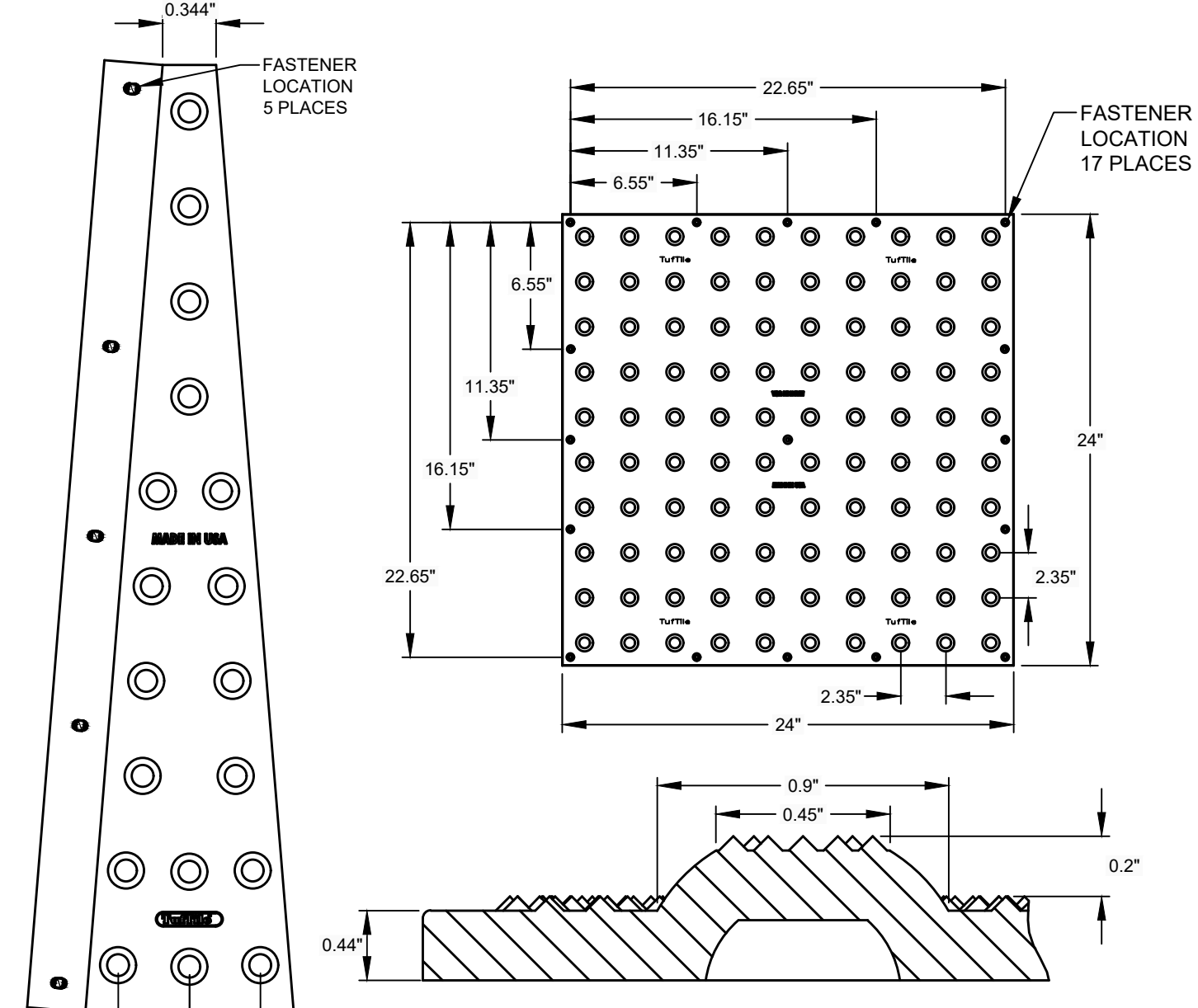
- NOTES**
- TRENCH EXCAVATION PER SECTION 301.
 - PIPE BEDDING PER SECTION 305.
 - BACKFILL AND COMPACTION PER SECTION 306.
 - SURFACE REPAIR AND BASE PER DETAIL 3/C20.

KETCHUM PUBLIC CONSTRUCTION SLURRY REQUIREMENT
 IN AREAS WHERE IT IS NECESSARY TO CUT THE ASPHALT PAVEMENT AND DIG A TRENCH FOR BURIAL OF CONDUIT CABLE OR OTHER CITY UTILITY, THE TRENCH SHALL BE BACKFILLED WITH A LEAN CONCRETE MIX TO THE BOTTOM OF FINISH SURFACE MATERIAL WITH THE FOLLOWING PROPORTIONS OF MATERIALS:

COARSE AGGREGATE (1/2" MINUS)	2,600 LBS
SAND	800 LBS
PORTLAND CEMENT	94 LBS
WATER	11 GAL. (MAX.)

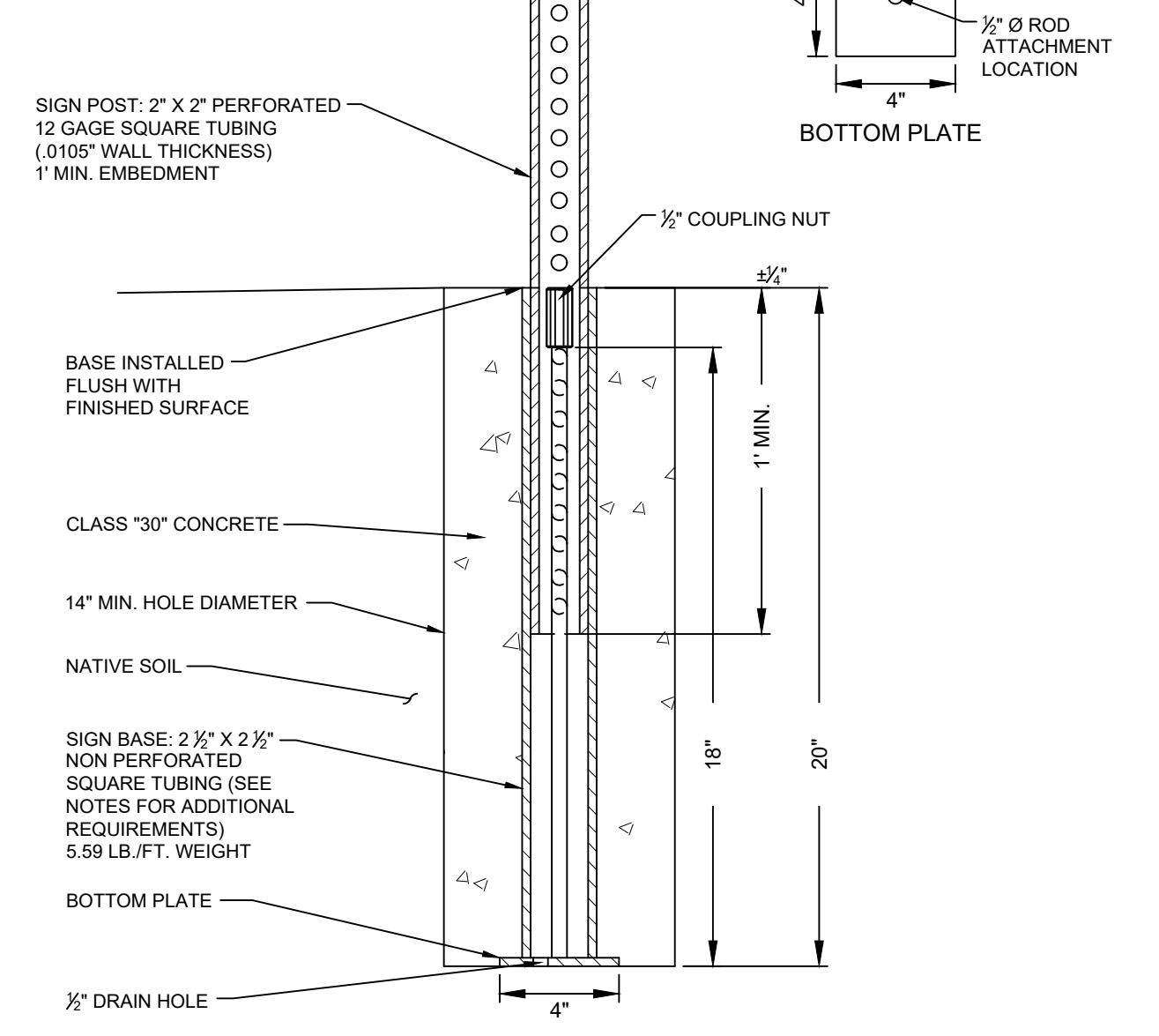
WATER CONTENT IS MAXIMUM AND MAY BE REDUCING DOWNWARD. CARES SHALL BE TAKEN TO ASSURE THAT EXCESS WATER IS NOT PRESENT IN THE MIXING DRUM PRIOR TO CHARGING THE MIXER WITH MATERIALS. THOROUGH MIXING WILL BE REQUIRED PRIOR TO DISCHARGE.
 NO COMPACTION, VIBRATION OR FINISHING IS REQUIRED. THE LEAN CONCRETE MIX SHALL BE STRUCK OFF AT OR BELOW THE ELEVATION OF THE PLANTMIX SURFACING WITH A SQUARE-NOSE SHOVEL OR SIMILAR HAND TOOL. THE BACKFILL MIX SHALL BE ALLOWED TO SET FOR A MINIMUM OF 2 HOURS BEFORE THE PERMANENT PLANTMIX SURFACING IS PLACED TO COMPLETE THE TRENCH REPAIR. TEMPORARY PLACEMENT OF ASPHALT COLD MIX SURFACING MAY BE NECESSARY TO ACCOMMODATE TRAFFIC WITHIN THE FIRST 2 HOURS OF BACKFILL PLACEMENT PRIOR TO COMPLETING THE PERMANENT REPAIR.

1
C0.3 **TYPICAL TRENCH SECTION**
N.T.S.



- NOTES:**
- DETECTABLE WARNING TILES SHALL BE TUFITILE (CAST IRON & WET SET) OR APPROVED EQUAL.
 - REFER TO DETAIL 8.
 - COLOR TO BE PATINA (NO FINISH).

2
C0.3 **DETECTABLE WARNING PLATE**
N.T.S.



- NOTES:**
- BASES SHALL BE INSTALLED TO BE FLUSH WITH SURFACE.
 - ALL INSTALLATIONS SHALL HAVE 14" Ø MINIMUM FOUNDATION OR GROUTED INTO SOLID ROCK.
 - ALL STREET SIGNS SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE MUTCD.
 - SIGN PLACEMENT SHALL BE APPROVED BY THE CITY OF KETCHUM.
 - CITY TO PROVIDE BASES.

SIGN BASE MATERIAL & DIMENSION REQUIREMENTS

- 2 1/2" OUTSIDE TUBE STEEL (20" LENGTH)
- 2 1/2" INSIDE TUBE STEEL
- 3/8" THICK

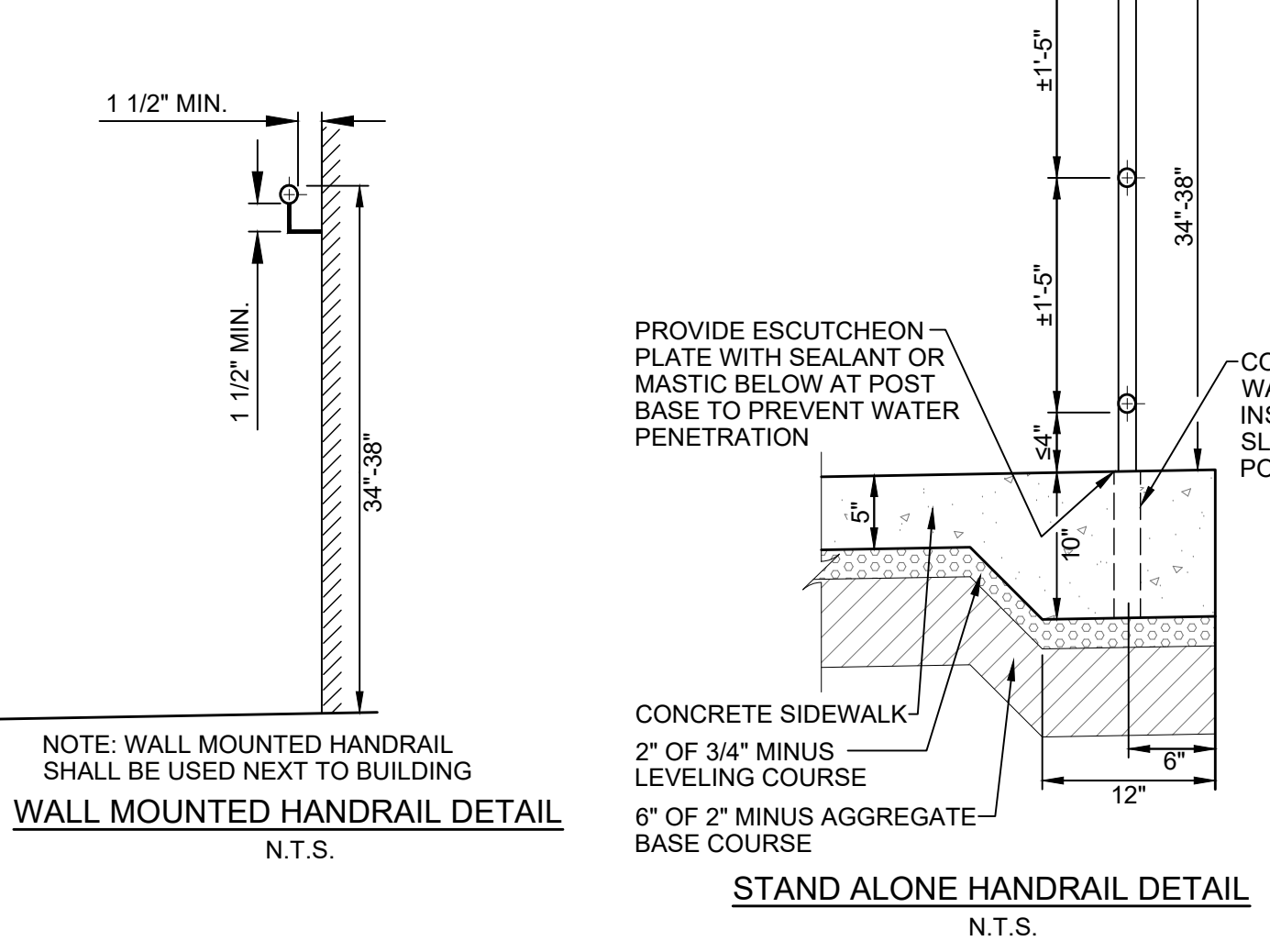
INTERNAL ROD MATERIAL & DIMENSION REQUIREMENTS

- 1/2" COLD ROLLED ROD (18" LENGTH)
- 1/2" COUPLING NUTS

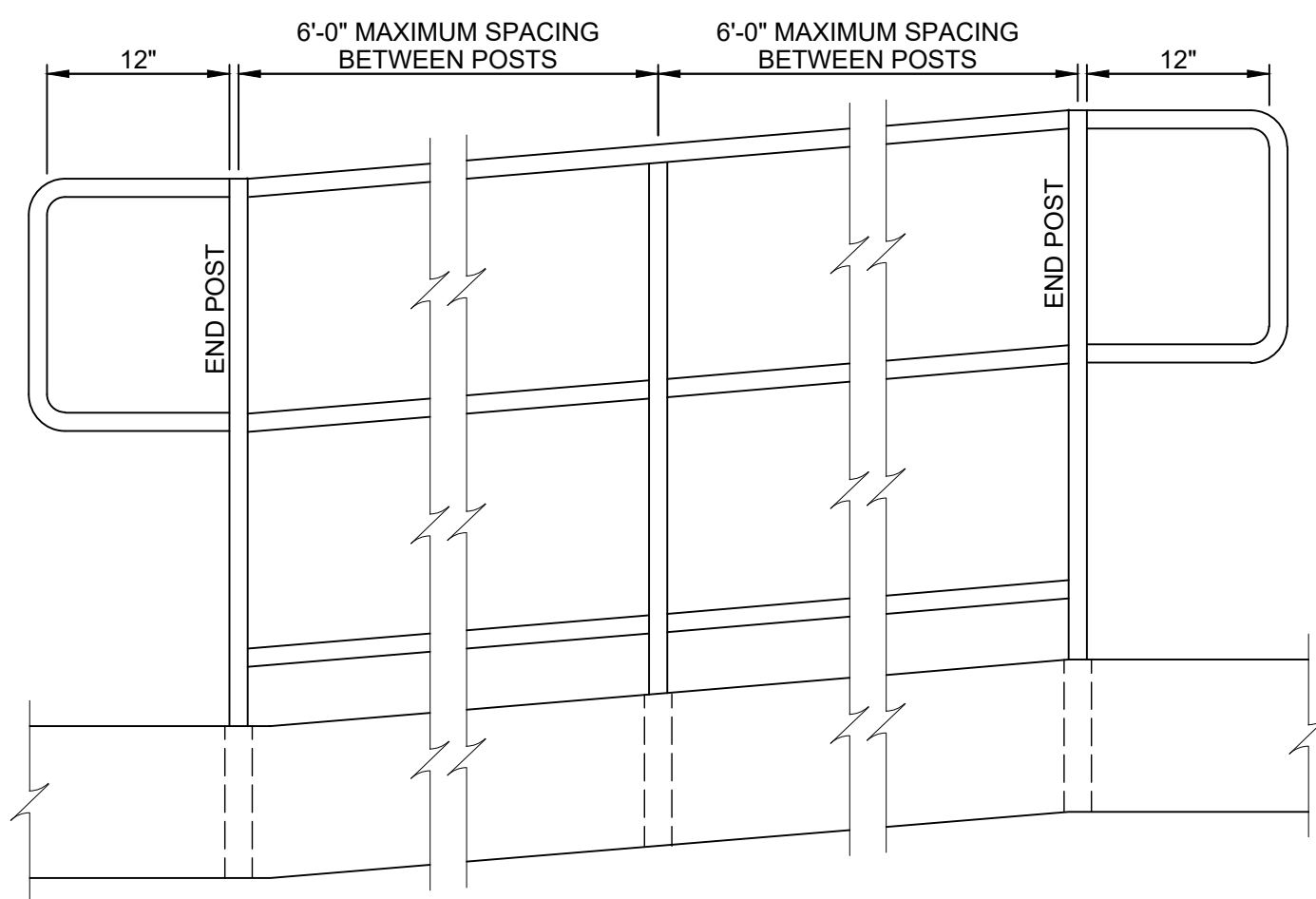
BOTTOM PLATE MATERIAL & DIMENSION REQUIREMENTS

- 4" X 4" X 1/2" STEEL STRAP

3
C0.3 **TYPICAL SIGN BASE**
N.T.S.

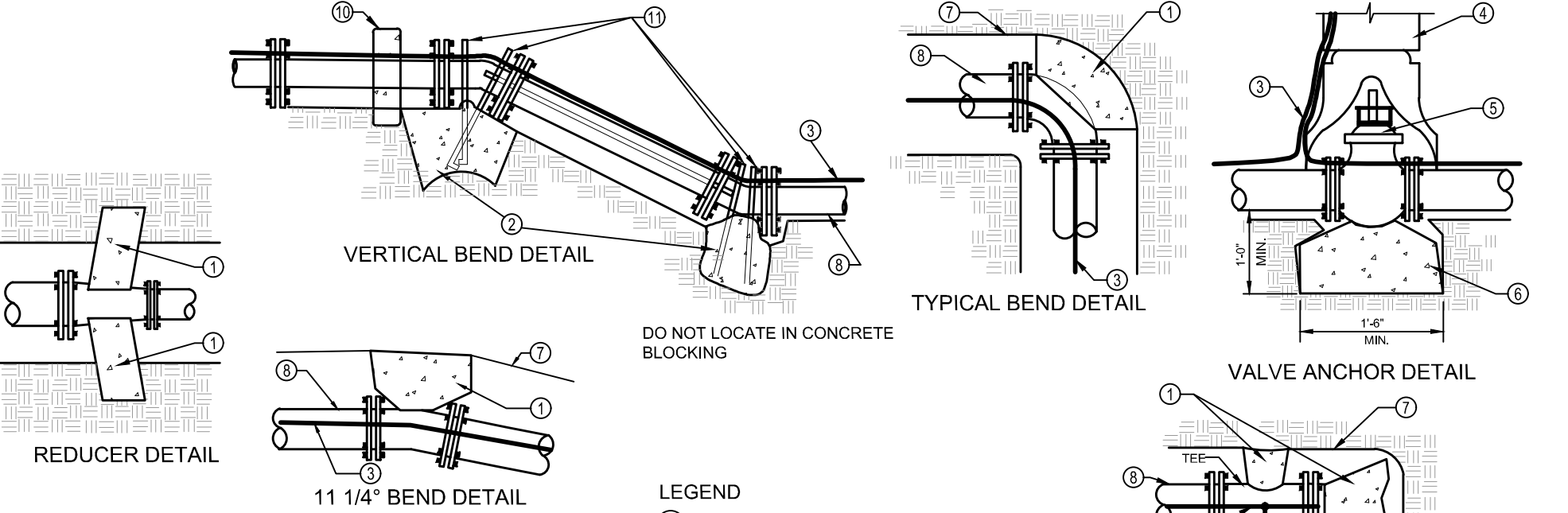


NOTE: WALL MOUNTED HANDRAIL SHALL BE USED NEXT TO BUILDING
WALL MOUNTED HANDRAIL DETAIL
 N.T.S.



- NOTES:**
- HANDRAIL SHALL BE PAINTED. PAINT SPECIFICATIONS PER OWNER.
 - CLEAR WIDTH: THE CLEAR WIDTH OF A RAMP RUN AND, WHERE HANDRAILS ARE PROVIDED, THE CLEAR WIDTH BETWEEN HANDRAILS SHALL BE 36 INCHES MINIMUM PER ADA REQUIREMENTS (405.5).

4
C0.3 **TYPICAL HANDRAIL DETAIL**
N.T.S.



DO NOT LOCATE IN CONCRETE BLOCKING

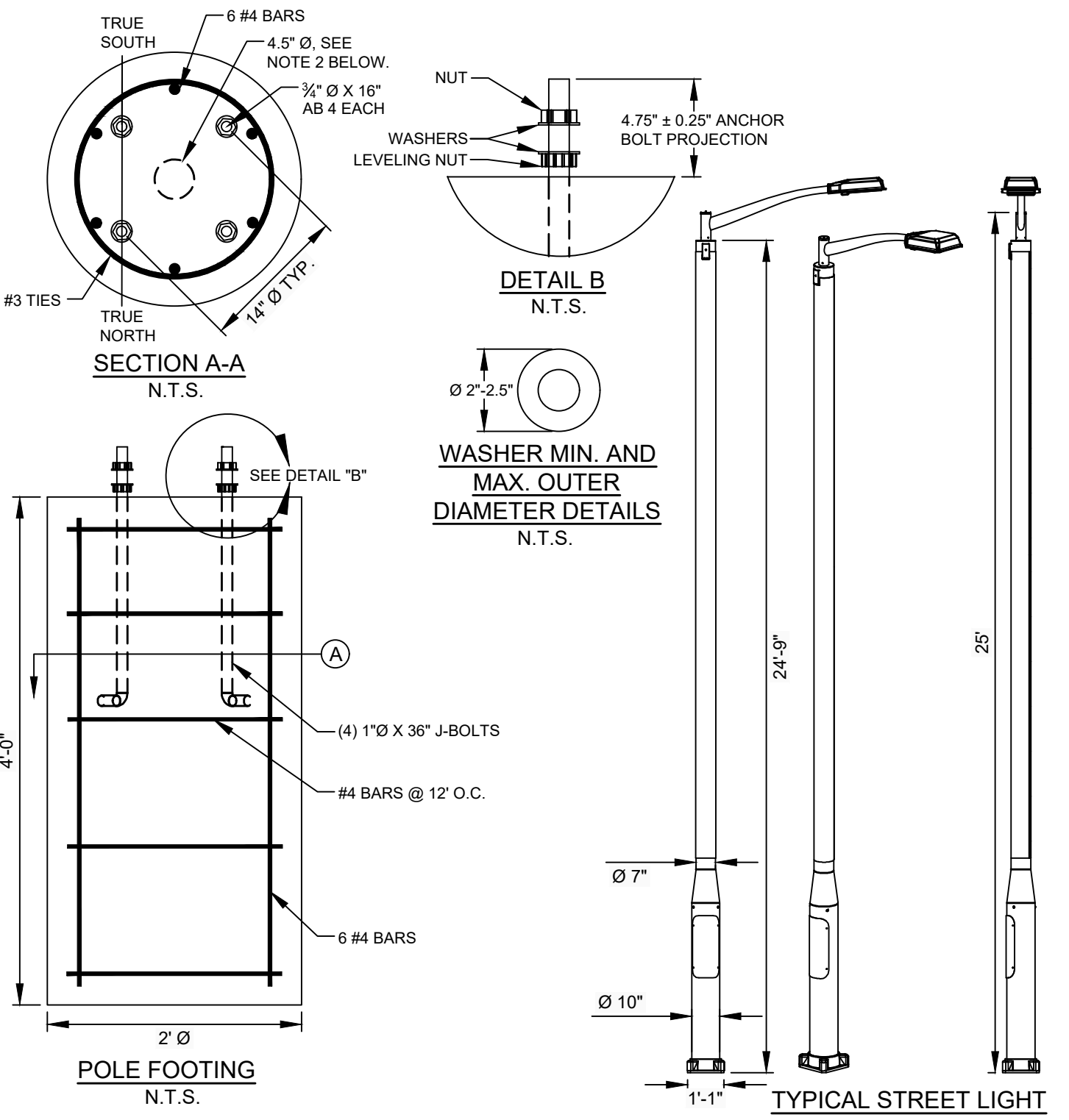
- LEGEND**
- FOR HORIZONTAL PIPE BENDS, BEARING THRUST BLOCKS MUST PROVIDE 2500 PSI CONCRETE POURED AGAINST UNDISTURBED EARTH PER TABLE 1.
 - FOR VERTICAL PIPE BENDS, GRAVITY THRUST BLOCKS MUST PROVIDE A VOLUME OF CONCRETE POURED AGAINST UNDISTURBED EARTH WHICH IS SIZED FOR EXPECTED FORCES WITH A MINIMUM 1.5 FACTOR OF SAFETY.
 - NO. 12 COPPER FINDER WIRE. SEE SD-S14 FOR SPLICING.
 - C.I. VALVE BOX WITH COVER.
 - C.I. GATE VALVE (M.J.).
 - PRECAST BLOCK FOR CUT IN TEE AND VALVE OR CAST IN PLACE WITH 2-1/2" Ø MIN. REBAR.
 - TRENCH SIDE.
 - PIPE.
 - PLUG.
 - HAMMERHEAD THRUST BLOCKING.
 - ANCHOR BARS (1/2" Ø MIN).

TABLE 1
THRUST AREA FOR HORIZONTAL BENDS***

PIPE SIZE	MINIMUM SQUARE FEET OF THRUST AREA ONTO UNDISTURBED EARTH*			
	TEE, PLUG OF VALVE	90° BEND	45° BEND	22.5°, 11.25° BENDS OR REDUCER
3"	0.8	1.1	0.6	0.3
4"	1.4	2.0	1.1	0.6
6"	3.2	4.5	2.4	1.2
8"	5.7	8.0	4.3	2.2
10"	8.8	12.5	6.8	3.4
12"	12.7	18.0	9.7	5.0
14"	17.3	24.5	13.3	6.8
16"	22.6	32.0	17.3	8.8
18"	28.6	40.5	21.9	11.2

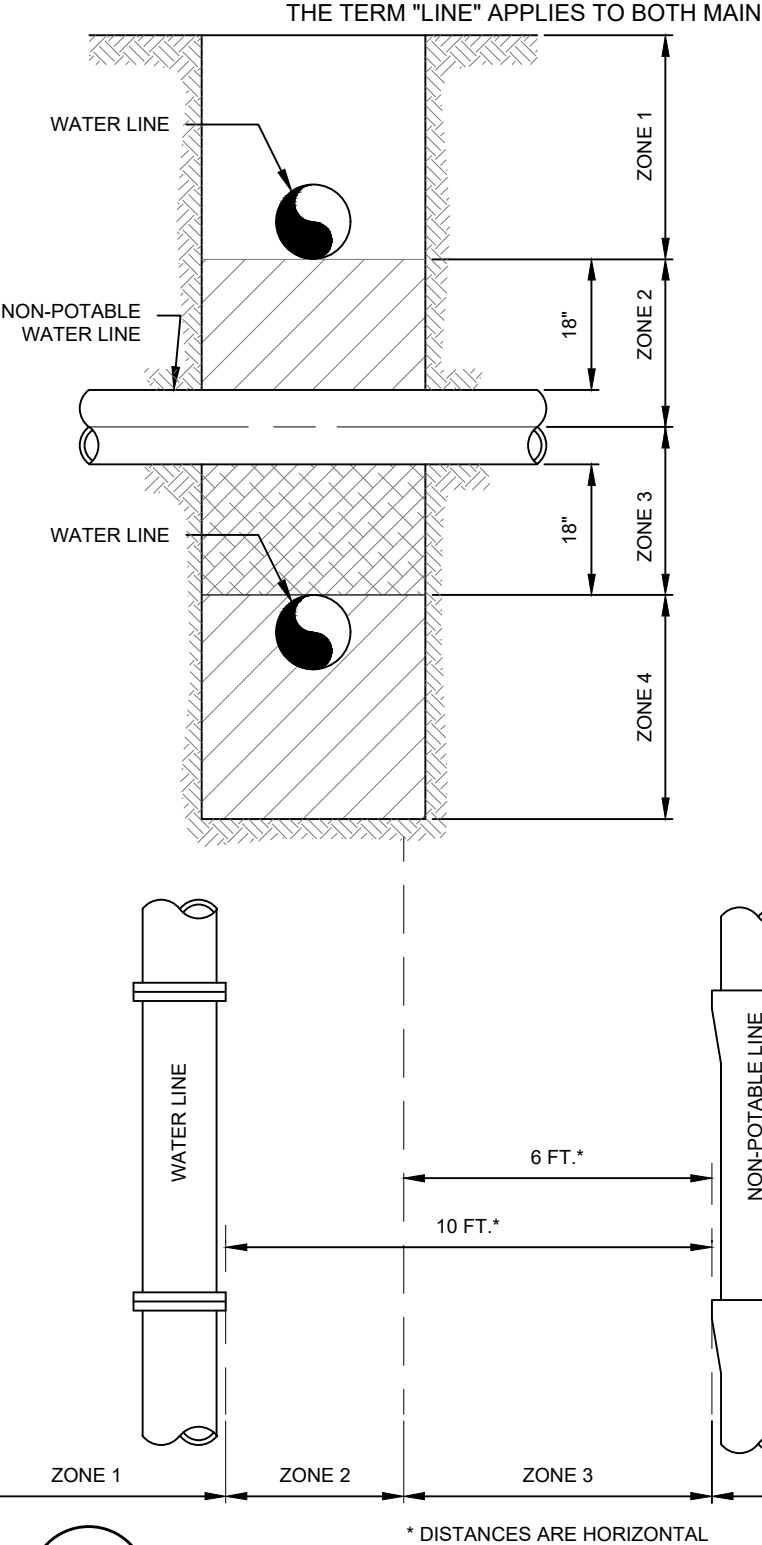
* MUST BE INCREASED BASED ON DIFFERENT CONDITIONS (HIGHER WORKING PRESSURE OR LOWER SOIL BEARING STRENGTH).
 ** OR TEE ACTING AS A 90° BEND.
 *** THRUST BLOCK DEPTH TO BE A MINIMUM PL 12" FOR PIPE SIZES 3"-8" AND 18" FOR PIPE SIZES 10"-18" OR THE SQUARE ROOT OF THE REQUIRED BEARING AREA, WHICHEVER IS GREATER.

5
C0.3 **THRUST BLOCK AND ANCHOR DETAILS**
N.T.S.



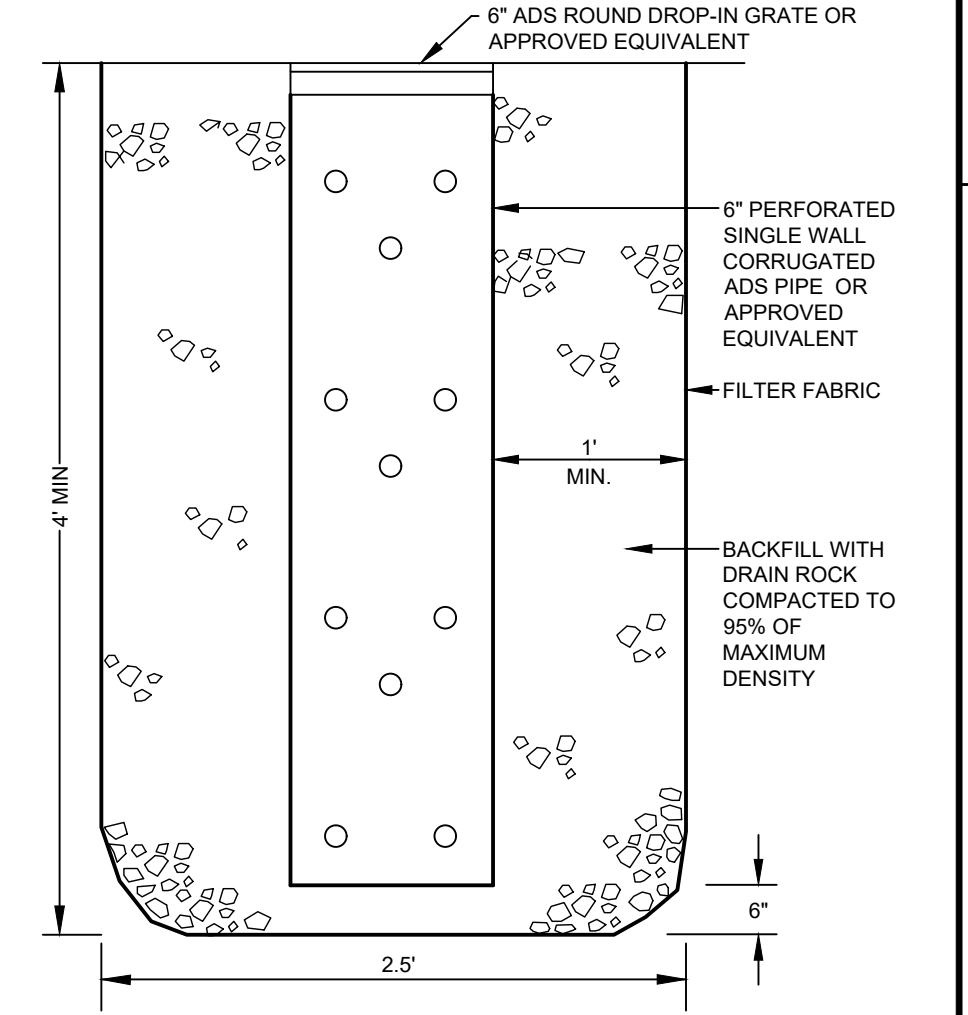
- NOTES:**
- STREET LIGHT IS SOLARONE RFS DESIGN 158 LFP OR APPROVED EQUAL.
 - ANY CONDUITS AND/OR GROUNDING WIRES MUST BE HARDWIRED AND CONTAINED WITHIN A 4.5" Ø CIRCLE CENTERED ON THE FOUNDATION. GROUNDING ELECTRODE WIRE AND AC SUPPLY WIRE (IF REQUIRED) ARE 5' MIN. ABOVE THE BASE.
 - ANCHOR BOLT ORIENTATION TO TRUE NORTH/SOUTH IS ONLY RELEVANT FOR OFF-GRID SOLAR POLES. DISREGARD FOR GRID-TIED POLES.
 - GROUNDING WIRE MUST BE 60" FROM BASE SO IT CAN REACH THE GROUNDING LUG INSIDE THE POLE.
 - STREET LIGHT SHALL BE 25" IN HEIGHT OR AS APPROVED BY CITY OF KETCHUM.

6
C0.3 **TYPICAL STREET LIGHT**
N.T.S.



7
C0.3 **POTABLE AND NON-POTABLE WATER LINE (NPWL) SEPARATION**
N.T.S.

- THE TERM "LINE" APPLIES TO BOTH MAIN LINES AND SERVICE LINES
- VERTICAL SEPARATION REQUIREMENTS**
- POTABLE WATER LINE (PWL) ABOVE NON-POTABLE WATER LINE (NPWL)
- ZONE 1:
- PWL AND NPWL MUST BE SEPARATED BY AT LEAST 18", AND
 - ONE FULL UNCUT LENGTH OF BOTH PWL AND NPWL PIPE MUST BE CENTERED ON THE CROSSING SO THAT THE JOINTS ARE AS FAR AS POSSIBLE FROM THE CROSSING.
- ZONE 2:
- ONE FULL UNCUT LENGTH OF BOTH PWL AND NPWL PIPE MUST BE CENTERED ON THE CROSSING AND EITHER
 - NPWL MUST BE CONSTRUCTED TO WATER MAIN STANDARDS AND PRESSURE TESTED FOR WATER TIGHTNESS FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF CROSSING, OR
 - EITHER THE NPWL OR WATER LINE OR BOTH MUST BE ENCASED WITH A SLEEVING MATERIAL ACCEPTABLE TO DEQ FOR A HORIZONTAL DISTANCE OF 10 FEET ON BOTH SIDES OF THE CROSSING.
- POTABLE WATER LINE (PWL) BELOW NON-POTABLE WATER LINE (NPWL)
- ZONE 3:
- SAME REQUIREMENTS AS ZONE 2 EXCEPT THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.
- ZONE 4:
- SAME REQUIREMENTS AS ZONE 1 EXCEPT THE NPWL MUST ALSO BE SUPPORTED ABOVE THE CROSSING TO PREVENT SETTLING.
- HORIZONTAL SEPARATION REQUIREMENTS**
- ZONE 1: (GREATER THAN 10-FEET HORIZONTAL SEPARATION):
- NO SPECIAL REQUIREMENTS.
- ZONE 2: (BETWEEN 6- FEET AND 10- FEET HORIZONTAL SEPARATION):
- NO SPECIAL REQUIREMENTS FOR POTABLE OR NON-POTABLE SERVICES
 - WATER AND NPWL SEPARATED BY AT LEAST 6 FEET AT OUTSIDE WALLS, AND
 - WATER AT LEAST 18 INCHES HIGHER IN ELEVATION THAN THE PWL, AND EITHER
 - NPWL CONSTRUCTED TO POTABLE WATER MAIN STANDARDS, AND PRESSURE TESTED FOR WATER TIGHTNESS, OR
 - SITE SPECIFIC REQUIREMENTS APPROVED BY DEQ.
- ZONE 3: (LESS THAN 6- FEET HORIZONTAL SEPARATION):
- NOT ALLOWED WITHOUT DEQ WAIVER.
- NOTE:** SANITARY SEWER FORCE MAINS MUST HAVE MIN. 10' HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION. ZONE 2 AND ZONE 3 PLACEMENTS ARE NOT ALLOWED WITHOUT A WAIVER GRANTED BY DEQ.



8
C0.3 **LANDSCAPE / PLANTER DRAIN**
N.T.S.

DETAIL SHEET
BLUEBIRD VILLAGE
(480 N EAST AVE)
 LOCATED WITHIN SECTION 18, T.4 N., R.18 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
 PREPARED FOR GMD DEVELOPMENT, LLC

PROJECT INFORMATION
 P:\sub\eng\36060\eng\Construction\0600 Engineer 2022-07-18.dwg 07/27/22 10:14:58 AM

PROFESSIONAL ENGINEER
 12497
 5007271722-0
 STATE OF IDAHO
 SEAN M. FLANN

DESIGNED BY _____
 CT
 DRAWN BY _____
 SMF
 CHECKED BY _____

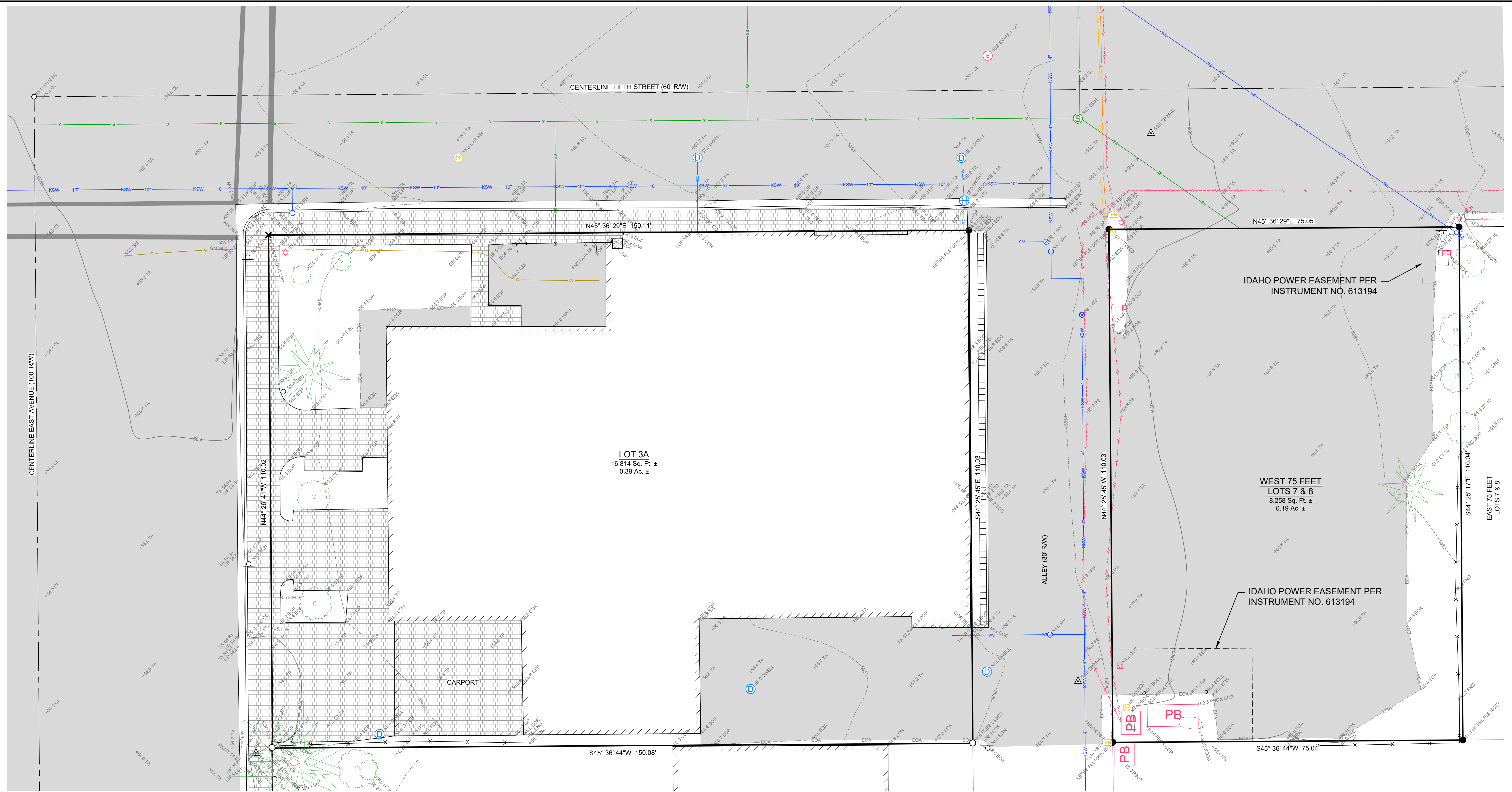
GALENA ENGINEERING, INC.
 Civil Engineers & Land Surveyors
 317 N. River Street
 Halley, Idaho 83333
 (208) 768-1705
 email: galena@galena-engineering.com

PURPOSE: ADDENDUM #1 SET (04/04/22)

NO.	DATE	BY	REVISIONS
1	04/04/22	SMF	ADDENDUM #1 SET
2	05/04/22	SMF	ADDENDUM #2 SET
3	06/13/22	SMF	CITY SECOND ROUND COMMENTS
4	07/27/22	SMF	RELOCATE STORM STRUCTURES DUE TO STRUCTURAL FOOTING PLAN
5	07/27/22	SMF	CITY THIRD ROUND COMMENTS

C0.3

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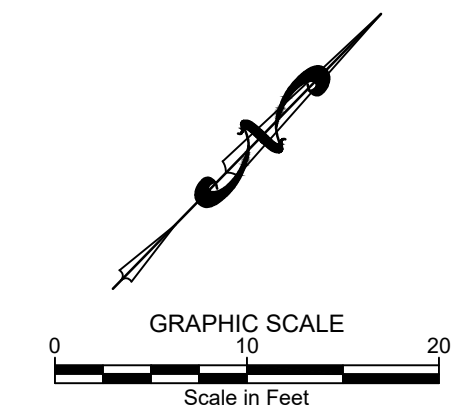


LEGEND

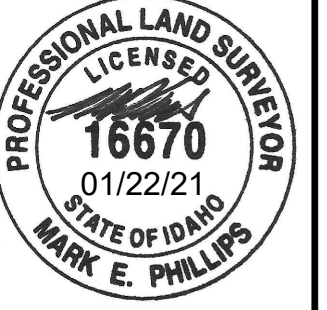
	Property Line		SGN = Sign		AP = Angle Point
	Adjoiner's Lot Line		GM = Gas Main		BEG = Beginning
	Centerline		TVB = Cable TV Buried		CC = Curb Cut
	Idaho Power Easement		TVR = Cable TV Riser		CL = Centerline
	FD5/8 = Found 5/8" Rebar		PHB = Buried Telephone Line		COR = Corner
	FD1/2 = Found 1/2" Rebar		PHBOX = Telephone Riser		EOA = Edge of Asphalt
	CNTRL = Survey Control		SYR MH = Syringa Manhole		EOC = Edge of Concrete
	SET5/8 = Set 5/8" Rebar		PB = Buried Power Line		EOP = Edge of Pavers
	SET MAG = Set Mag Nail		Overhead Power Line		FF = Finished Floor
	5' Contour Interval		Light		GFF = Garage Finished Floor
	1' Contour Interval		PBOX = Power Box		IC = Illegible Cap
	Curb & Gutter		PP = Power Pole		NC = No Cap
	TD = Trench Drain		EVAULT = Power Vault		NG = Natural Ground
	FNC = Fence Line		OUT = Power Outlet		PC = Point of Curvature
	Building		Sewer Main		PT = Point of Tangent
	Asphalt		SS = Sewer Service		TA = Top of Asphalt
	Concrete		SMH = Sewer Manhole		TBC = Top Back of Curb
	Pavers		Roof Drain		TP = Top of Pavers
	CT = Conifer Tree		CB = Catch Basin		
	DT = Deciduous Tree		DWELL = Dry Well		
	Boll = Bollard		KSW = Ketchum Spring Line (10")		
	XW = Crosswalk		KSW = Ketchum Spring Line (4")		
			WS = Water Service		
			WMTR = Water Meter		
			FH = Fire Hydrant		
			WV = Water Valve		

NOTES

- The purpose of this map is to show topographical information as it existed on the date the field survey was performed. Changes may have occurred to site conditions since survey date (12/22/2020).
- Boundary information is based on Found Monumentation. Please refer to the recorded map of the Official Map of the Village of Ketchum, Instr # 302967, records of Blaine County, Idaho. Refer to the Plat Notes, Conditions, Covenants, and Restrictions on Original Plat.
- Underground utility locations are based on above ground appurtenances / utilities visible at the time of the survey, and City Maps. Utilities should be located prior to any excavation.
- Galena Engineering Inc. has not received a Title Policy from the client and has not been requested to obtain one. Relevant information that may be contained within a Title Policy may therefore not appear on this map and may affect items shown hereon. It is the responsibility of the client to determine the significance of the Title Policy information and determine whether it should be included. If the client desires for the information to be included they must furnish said information to Galena Engineering, Inc. and request it be added to this map.
- Benchmark is top of 1/2" rebar marking the intersection of Fifth Street and East Avenue, elevation = 5855.13. Point elevations shown are truncated (i.e. 19.2 is 5819.2). Vertical Datum is NAVD 1988.



A TOPOGRAPHIC MAP SHOWING
LOT 3A AND THE WEST 75' OF LOTS 7 & 8
BLOCK 45, KETCHUM TOWNSITE (480 N EAST AVE)
 LOCATED WITHIN SECTION 18, T.4 N., R.18 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
 PREPARED FOR GMD DEVELOPMENT, LLC



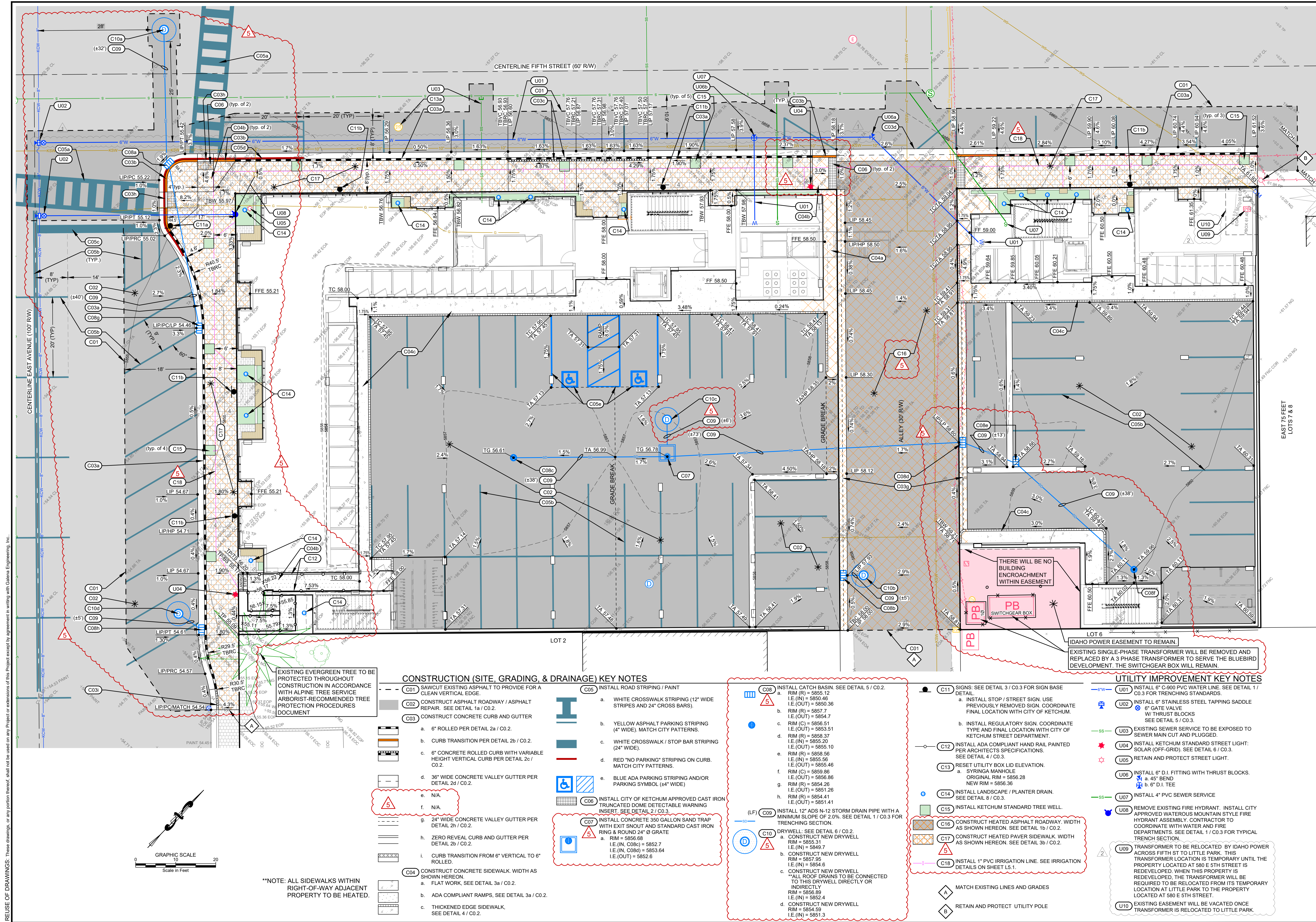
DESIGNED BY _____
 DRAWN BY _____
 SMF
 CHECKED BY _____

GALENA
ENGINEERING, INC.
 Civil Engineers & Land Surveyors
 317 N. River Street
 Halley, Idaho 83333
 (208) 768-1705
 email: galena@galena-engineering.com

PURPOSE:	NO.	DATE	BY	REVISIONS

C0.4

PROJECT INFORMATION
 P:\sub\eng\30606\30606.dwg
 02/10/21 12:28:27 PM



GRADING, DRAINAGE, AND UTILITY PLAN SHOWING BLUEBIRD VILLAGE (480 N EAST AVE)
 LOCATED WITHIN SECTION 18, T.4 N., R.18 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
 PREPARED FOR GMD DEVELOPMENT, LLC

PROJECT INFORMATION
 P:\sub\proj\6060\proj\Construction\6060 Engineer 2022-07-18.dwg 07/27/22 10:14:59 AM

DESIGNED BY
 CT
 DRAWN BY
 SMF
 CHECKED BY

GALENA ENGINEERING, INC.
 Civil Engineers & Land Surveyors
 317 N. River Street
 Halley, Idaho 83333
 (208) 768-1705
 email: galena@galena-engineering.com

PURPOSE: ADDENDUM #1 SET (04/04/22)
 NO. DATE BY REVISIONS
 1 04/04/22 SMF ADDENDUM #1 SET
 2 05/04/22 SMF ADDENDUM #2 SET
 3 06/19/22 SMF CITY SECOND ROUND COMMENTS
 4 07/27/22 SMF RELOCATE STORM STRUCTURES DUE TO STRUCTURAL FOOTING PLAN
 5 07/27/22 SMF CITY THIRD ROUND COMMENTS

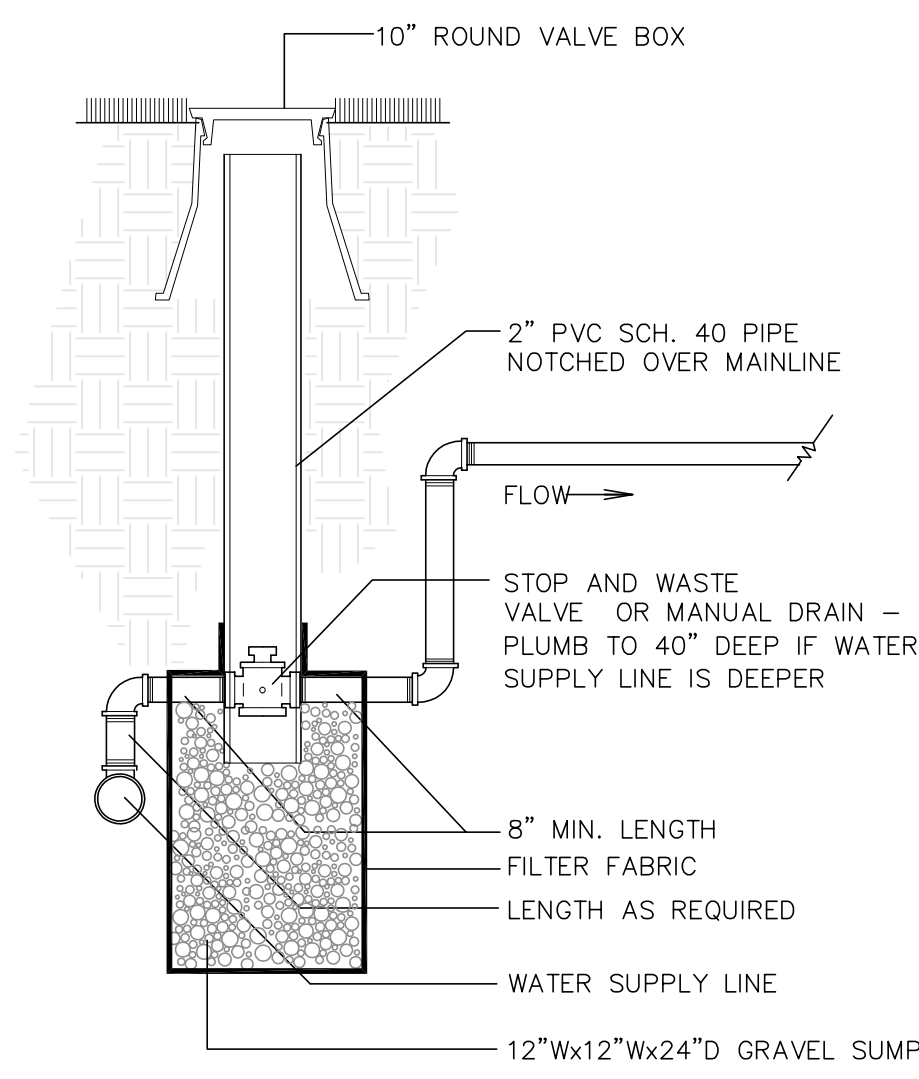
- CONSTRUCTION (SITE, GRADING, & DRAINAGE) KEY NOTES**
- C01 SAWCUT EXISTING ASPHALT TO PROVIDE FOR A CLEAN VERTICAL EDGE.
 - C02 CONSTRUCT ASPHALT ROADWAY / ASPHALT REPAIR. SEE DETAIL 1a / C0.2.
 - C03 CONSTRUCT CONCRETE CURB AND GUTTER
 - a. 6" ROLLED PER DETAIL 2a / C0.2.
 - b. CURB TRANSITION PER DETAIL 2b / C0.2.
 - c. 6" CONCRETE ROLLED CURBS WITH VARIABLE HEIGHT VERTICAL CURB PER DETAIL 2c / C0.2.
 - d. 36" WIDE CONCRETE VALLEY GUTTER PER DETAIL 2d / C0.2.
 - e. N/A.
 - f. N/A.
 - g. 24" WIDE CONCRETE VALLEY GUTTER PER DETAIL 2h / C0.2.
 - h. ZERO REVEAL CURB AND GUTTER PER DETAIL 2b / C0.2.
 - i. CURB TRANSITION FROM 6" VERTICAL TO 6" ROLLED.
 - C04 CONSTRUCT CONCRETE SIDEWALK. WIDTH AS SHOWN HEREON
 - a. FLAT WORK. SEE DETAIL 3a / C0.2.
 - b. ADA COMPLIANT RAMP. SEE DETAIL 3a / C0.2.
 - c. THICKENED EDGE SIDEWALK. SEE DETAIL 4 / C0.2.
 - C05 INSTALL ROAD STRIPING / PAINT
 - a. WHITE CROSSWALK STRIPING (12" WIDE STRIPES AND 24" CROSS BARS).
 - b. YELLOW ASPHALT PARKING STRIPING (4" WIDE). MATCH CITY PATTERNS.
 - c. WHITE CROSSWALK / STOP BAR STRIPING (24" WIDE).
 - d. RED "NO PARKING" STRIPING ON CURB. MATCH CITY PATTERNS.
 - e. BLUE ADA PARKING STRIPING AND/OR PARKING SYMBOL (±4' WIDE)
 - C06 INSTALL CITY OF KETCHUM APPROVED CAST IRON TRUNCATED DOME DETECTABLE WARNING. INSERT SEE DETAIL 2 / C0.3.
 - C07 INSTALL CONCRETE 350 GALLON SAND TRAP WITH EXIT SNOUT AND STANDARD CAST IRON RING & ROUND 24" Ø GRATE
 - a. RIM = 5856.68
I.E.(IN, C08c) = 5852.7
I.E.(IN, C08d) = 5853.64
I.E.(OUT) = 5852.6
 - C08 INSTALL CATCH BASIN. SEE DETAIL 5 / C0.2.
 - a. RIM (R) = 5855.12
I.E.(IN) = 5850.46
I.E.(OUT) = 5850.36
 - b. RIM (R) = 5857.7
I.E.(OUT) = 5854.7
 - c. RIM (C) = 5856.51
I.E.(OUT) = 5853.51
 - d. RIM (R) = 5858.37
I.E.(IN) = 5855.20
I.E.(OUT) = 5855.10
 - e. RIM (R) = 5858.56
I.E.(IN) = 5855.56
I.E.(OUT) = 5855.46
 - f. RIM (C) = 5859.86
I.E.(OUT) = 5856.86
 - g. RIM (R) = 5854.26
I.E.(OUT) = 5851.26
 - h. RIM (R) = 5854.41
I.E.(OUT) = 5851.41
 - C09 INSTALL 12" ADS N-12 STORM DRAIN PIPE WITH A MINIMUM SLOPE OF 2.0%. SEE DETAIL 1 / C0.3 FOR TRENCHING SECTION.
 - C10 DRYWELL. SEE DETAIL 6 / C0.2.
 - a. CONSTRUCT NEW DRYWELL. RIM = 5855.31
I.E.(IN) = 5849.7
 - b. CONSTRUCT NEW DRYWELL. RIM = 5857.95
I.E.(IN) = 5854.6
 - c. CONSTRUCT NEW DRYWELL. "ALL ROOF DRAINS TO BE CONNECTED TO THIS DRYWELL DIRECTLY OR INDIRECTLY". RIM = 5856.89
I.E.(IN) = 5852.4
 - d. CONSTRUCT NEW DRYWELL. RIM = 5854.59
I.E.(IN) = 5851.3

- UTILITY IMPROVEMENT KEY NOTES**
- U01 INSTALL 6" C-900 PVC WATER LINE. SEE DETAIL 1 / C0.3 FOR TRENCHING STANDARDS.
 - U02 INSTALL 6" STAINLESS STEEL TAPPING SADDLE @ 6" GATE VALVE W/ THRUST BLOCKS. SEE DETAIL 5 / C0.3.
 - U03 EXISTING SEWER SERVICE TO BE EXPOSED TO SEWER MAIN CUT AND PLUGGED.
 - U04 INSTALL KETCHUM STANDARD STREET LIGHT: SOLAR (OFF-GRID). SEE DETAIL 6 / C0.3.
 - U05 RETAIN AND PROTECT STREET LIGHT.
 - U06 INSTALL 6" D.I. FITTING WITH THRUST BLOCKS.
 - a. 45° BEND
 - b. 6" D.I. TEE
 - U07 INSTALL 4" PVC SEWER SERVICE
 - U08 REMOVE EXISTING FIRE HYDRANT. INSTALL CITY APPROVED WATEROUS MOUNTAIN STYLE FIRE HYDRANT ASSEMBLY. CONTRACTOR TO COORDINATE WITH WATER AND FIRE DEPARTMENTS. SEE DETAIL 1 / C0.3 FOR TYPICAL TRENCH SECTION.
 - U09 TRANSFORMER TO BE RELOCATED BY IDAHO POWER ACROSS FIFTH ST TO LITTLE PARK. THIS TRANSFORMER LOCATION IS TEMPORARY UNTIL THE PROPERTY LOCATED AT 580 E 5TH STREET IS REDEVELOPED. WHEN THIS PROPERTY IS REDEVELOPED, THE TRANSFORMER WILL BE REQUIRED TO BE RELOCATED FROM ITS TEMPORARY LOCATION AT LITTLE PARK TO THE PROPERTY LOCATED AT 580 E 5TH STREET.
 - U10 EXISTING EASEMENT WILL BE VACATED ONCE TRANSFORMER IS RELOCATED TO LITTLE PARK.

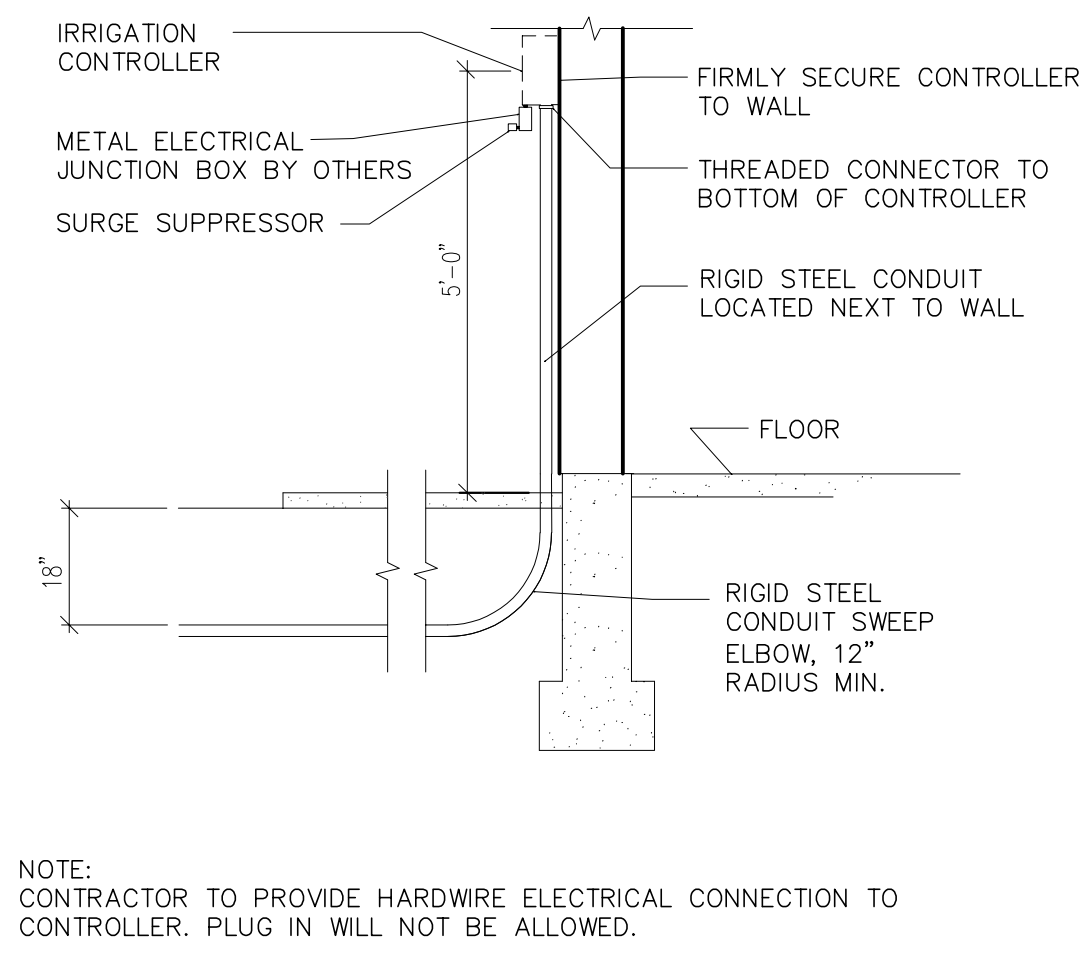
- CONSTRUCTION (SITE, GRADING, & DRAINAGE) KEY NOTES**
- C11 SIGNS: SEE DETAIL 3 / C0.3 FOR SIGN BASE DETAIL.
 - a. INSTALL STOP / STREET SIGN. USE PREVIOUSLY REMOVED SIGN. COORDINATE FINAL LOCATION WITH CITY OF KETCHUM.
 - b. INSTALL REGULATORY SIGN. COORDINATE TYPE AND FINAL LOCATION WITH CITY OF KETCHUM STREET DEPARTMENT.
 - C12 INSTALL ADA COMPLIANT HAND RAIL PAINTED PER ARCHITECTS SPECIFICATIONS. SEE DETAIL 4 / C0.3.
 - C13 RESET UTILITY BOX LID ELEVATION.
 - a. SYRINGA MANHOLE ORIGINAL RIM = 5856.28
NEW RIM = 5856.36
 - C14 INSTALL LANDSCAPE / PLANTER DRAIN. SEE DETAIL 8 / C0.3.
 - C15 INSTALL KETCHUM STANDARD TREE WELL.
 - C16 CONSTRUCT HEATED ASPHALT ROADWAY. WIDTH AS SHOWN HEREON. SEE DETAIL 1b / C0.2.
 - C17 CONSTRUCT HEATED PAVER SIDEWALK. WIDTH AS SHOWN HEREON. SEE DETAIL 3b / C0.2.
 - C18 INSTALL 1" PVC IRRIGATION LINE. SEE IRRIGATION DETAILS ON SHEET L5.1.
- MATCH EXISTING LINES AND GRADES
 RETAIN AND PROTECT UTILITY POLE

**NOTE: ALL SIDEWALKS WITHIN RIGHT-OF-WAY ADJACENT PROPERTY TO BE HEATED.

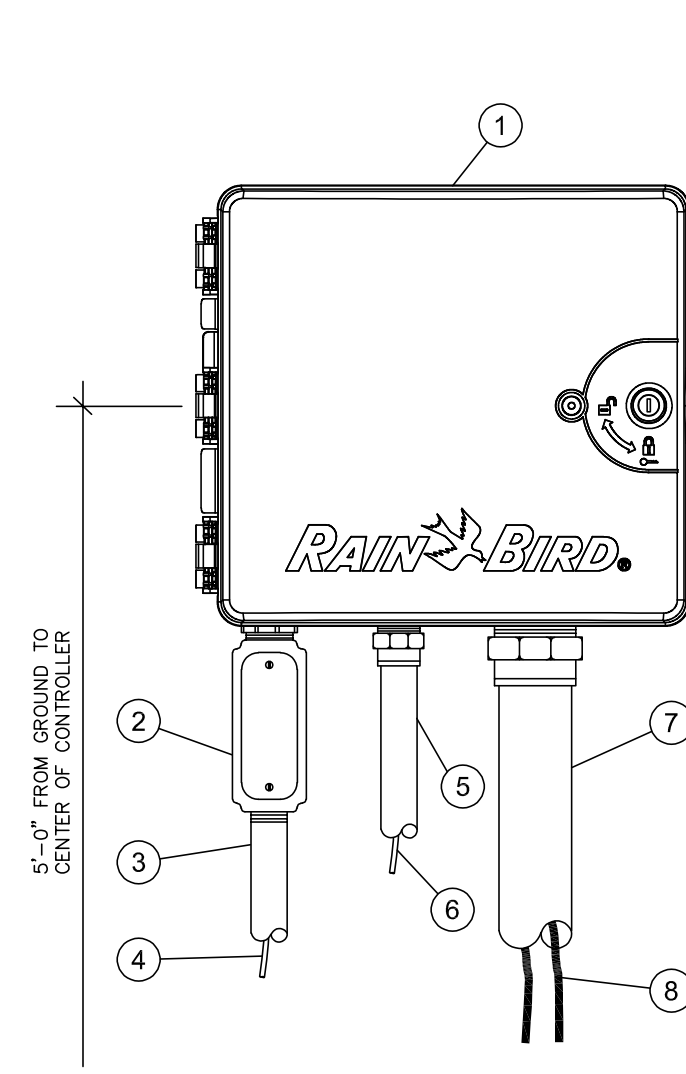
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A Stop and Waste Valve
NO SCALE

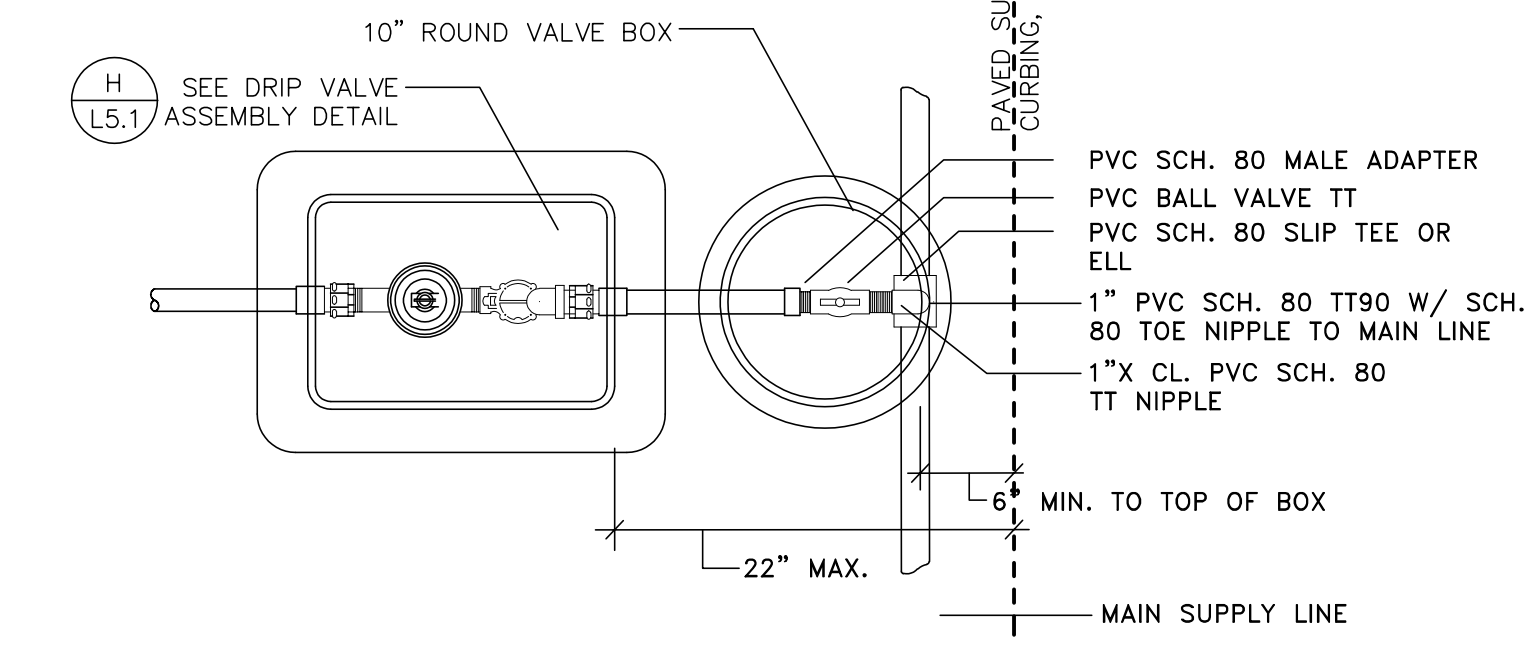


B Exterior Wall Mounted Controller
NO SCALE

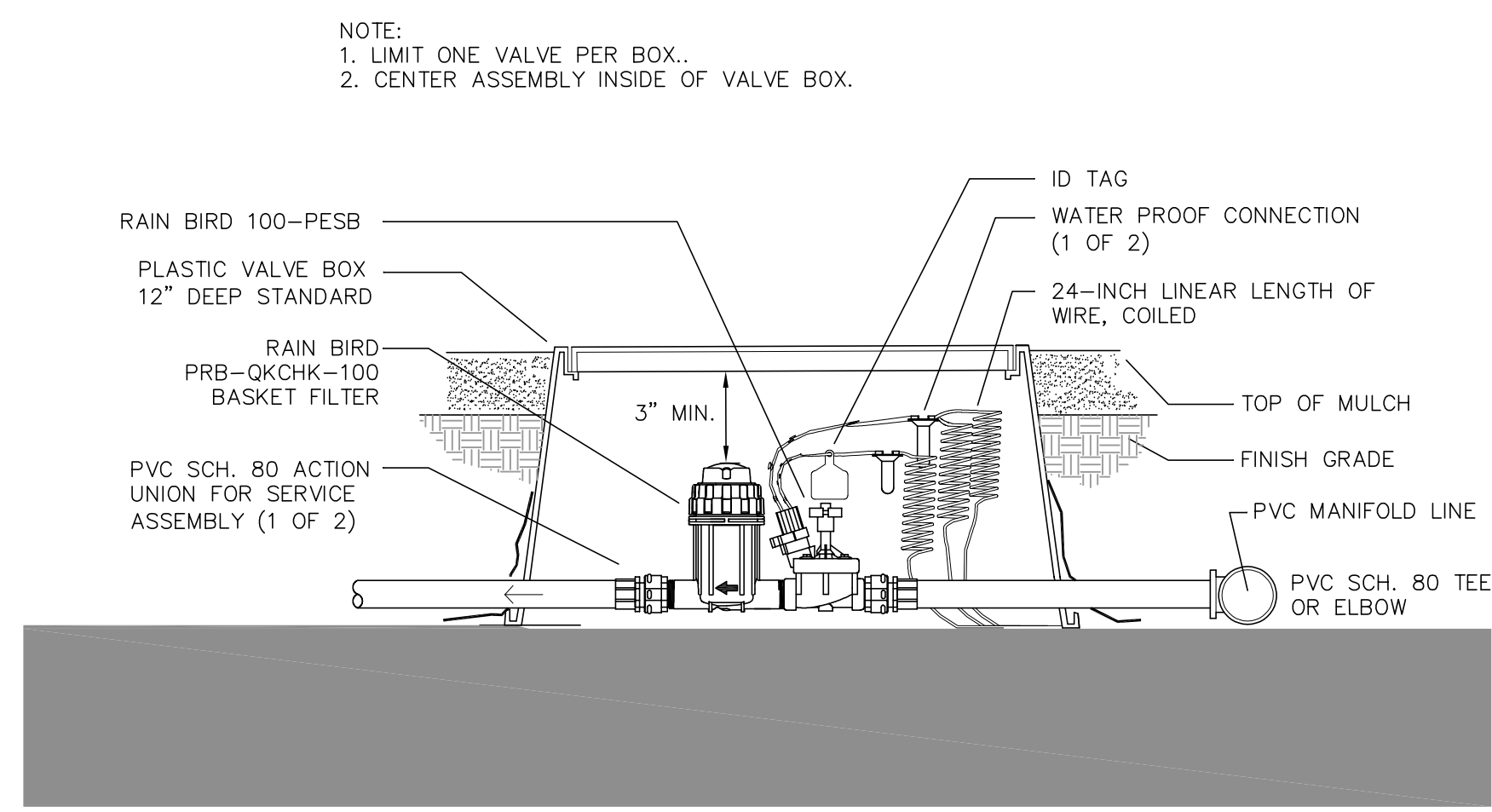


C Rain Bird ESP-ME Controller with Wi-Fi
NO SCALE

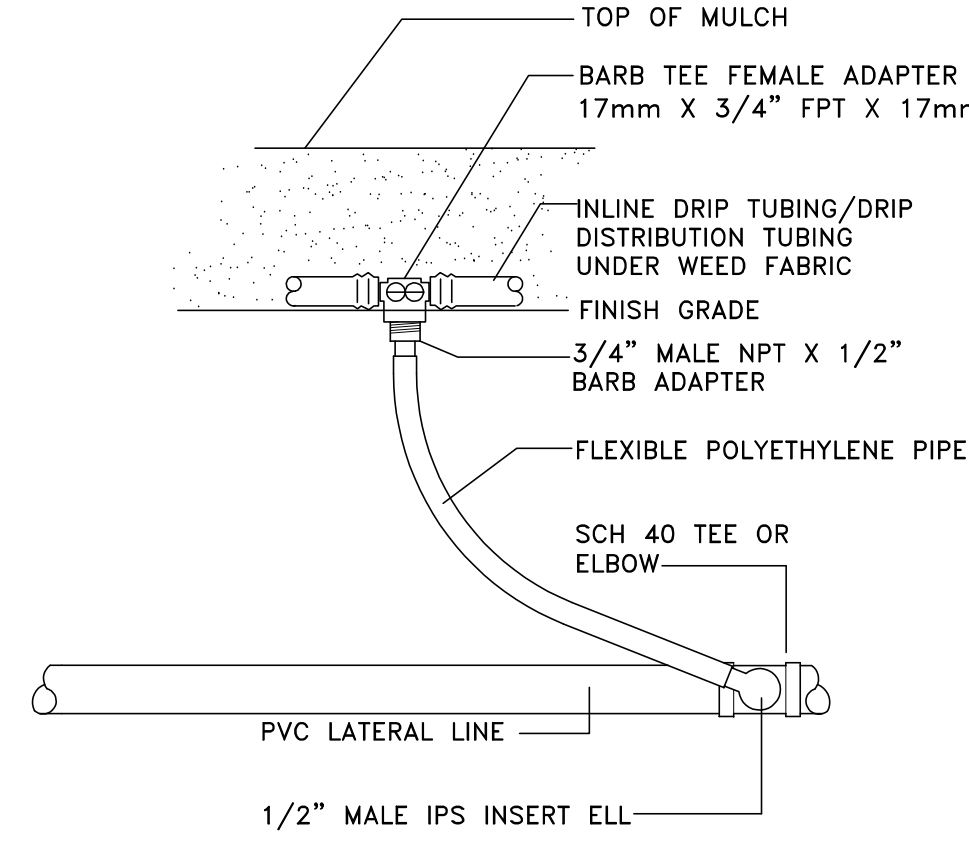
- 1 TWO-WIRE DECODER CONTROLLER: RAIN BIRD ESP-ME CONTROLLER WITH LNKWFI MODULE IN PLASTIC CABINET WITH WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS. ENSURE CONTROLLER IS FAR ENOUGH FROM WALL TO OPEN CABINET DOOR COMPLETELY.
 - 2 JUNCTION BOX
 - 3 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
 - 4 POWER SUPPLY WIRE
 - 5 1-INCH CONDUIT AND FITTINGS FOR COMMUNICATION WIRE
 - 6 COMMUNICATION WIRE - SEE SPECIFICATIONS
 - 7 2-INCH CONDUIT AND FITTINGS FOR CONTROL WIRES
 - 8 CONTROL WIRES
- NOTES:
1. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.



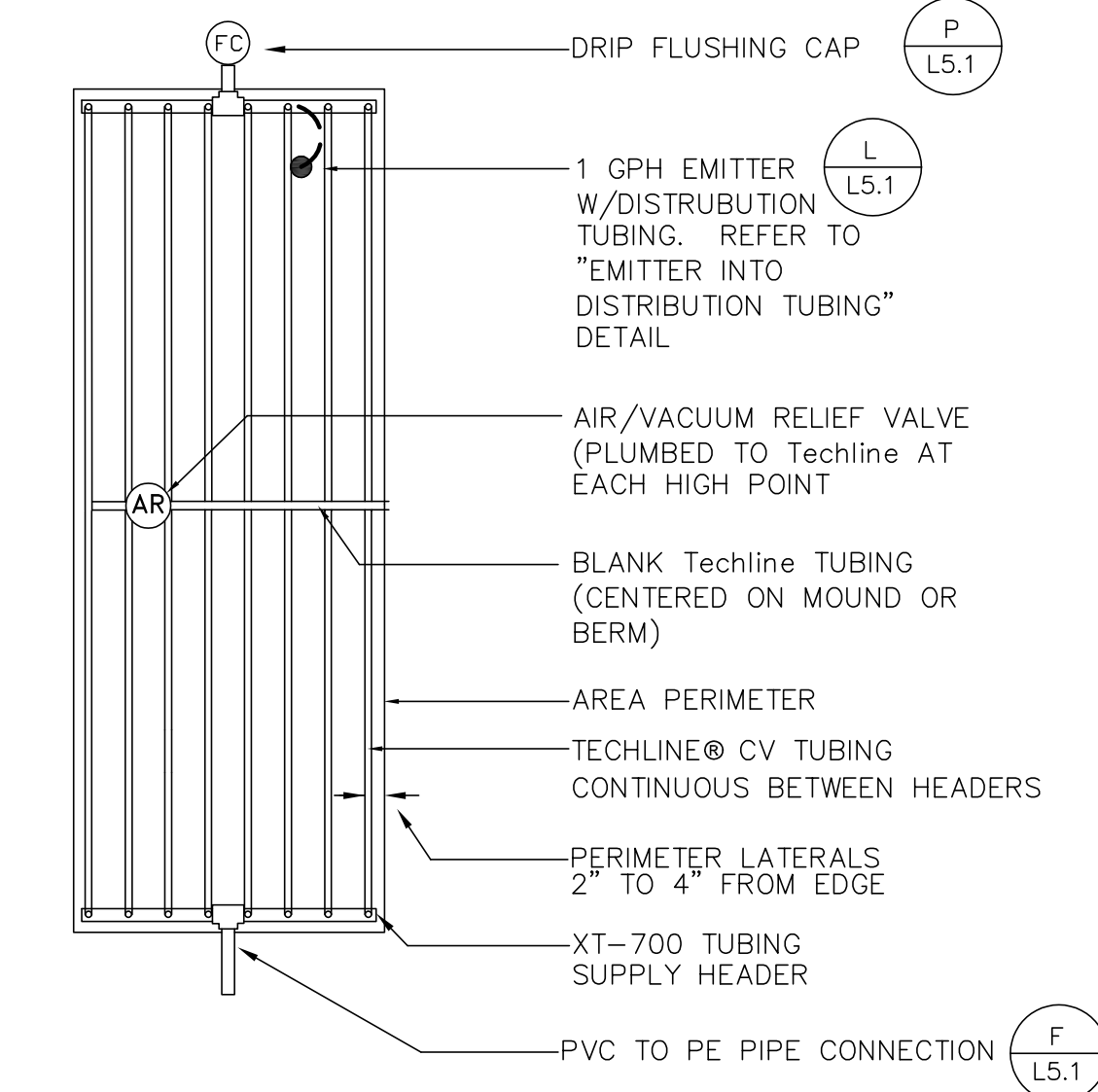
D Single Drip Valve Assembly - Plan
NO SCALE



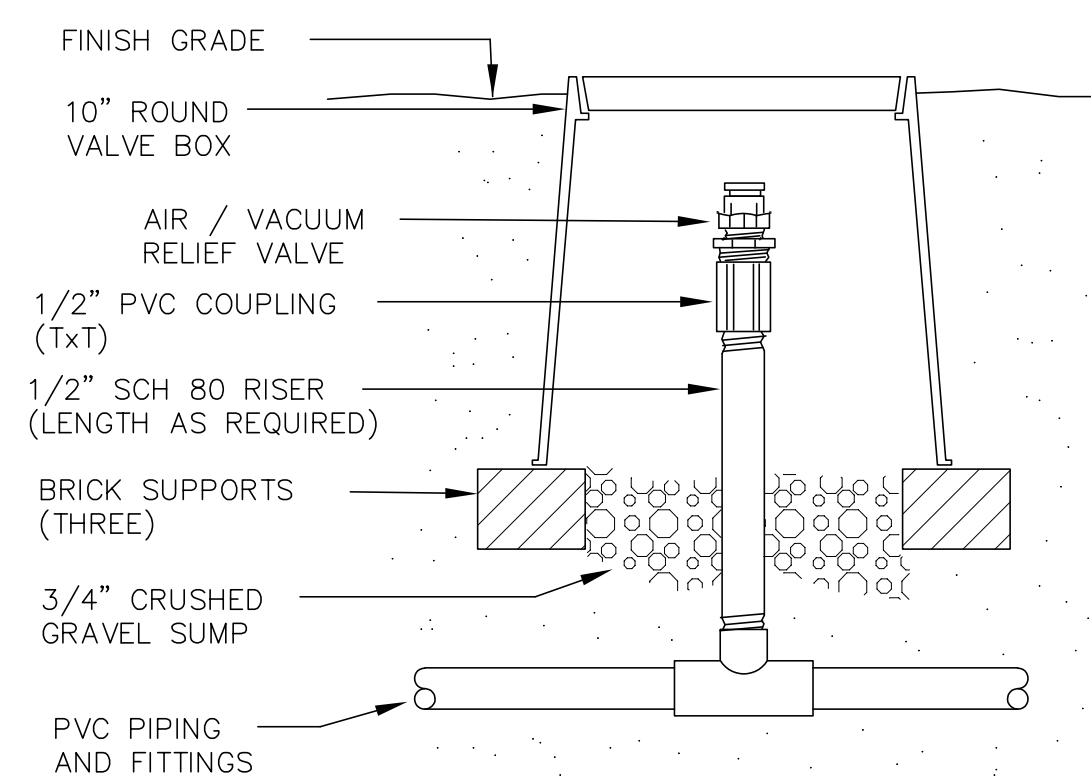
E Drip Valve Assembly
NO SCALE



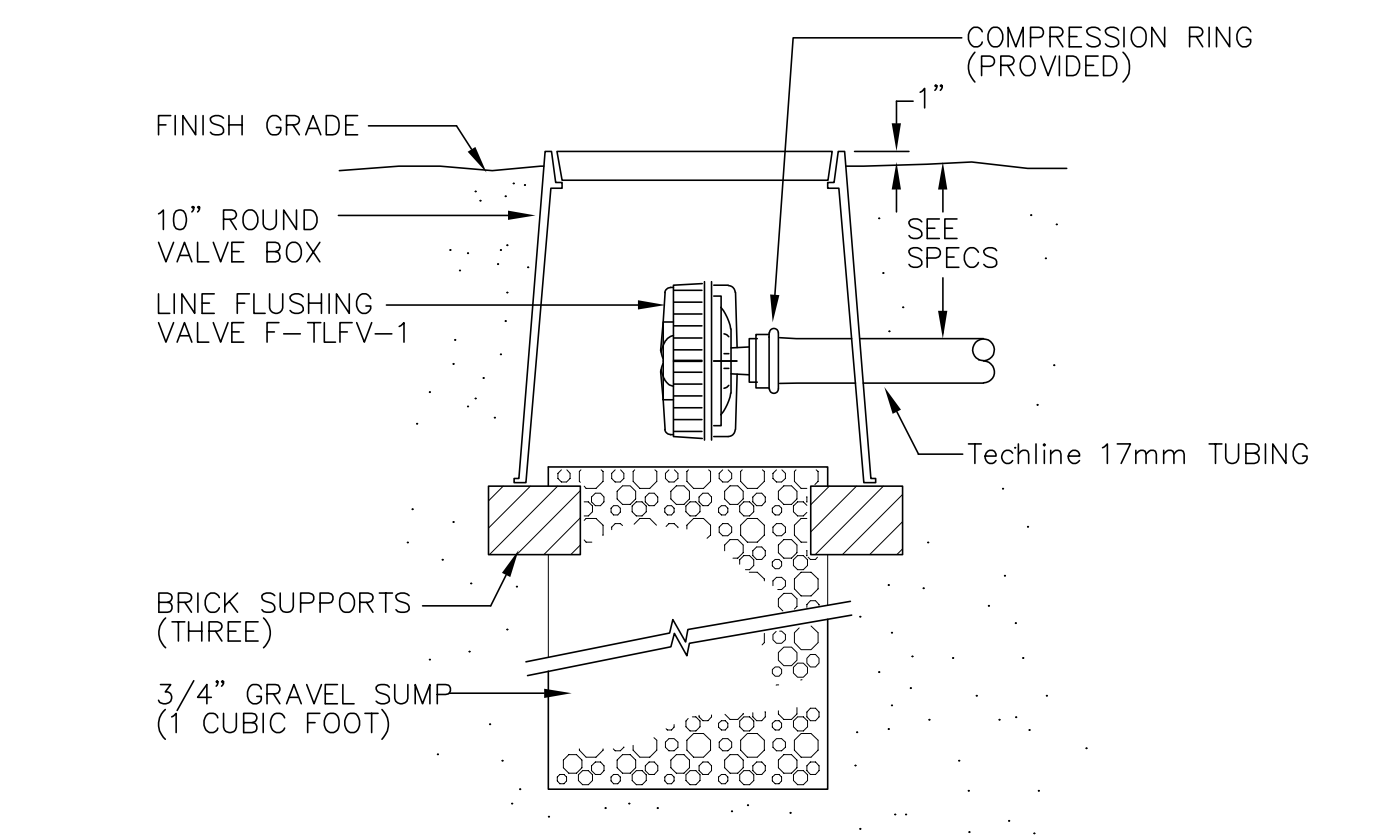
F PVC to PE Pipe Connection
NO SCALE



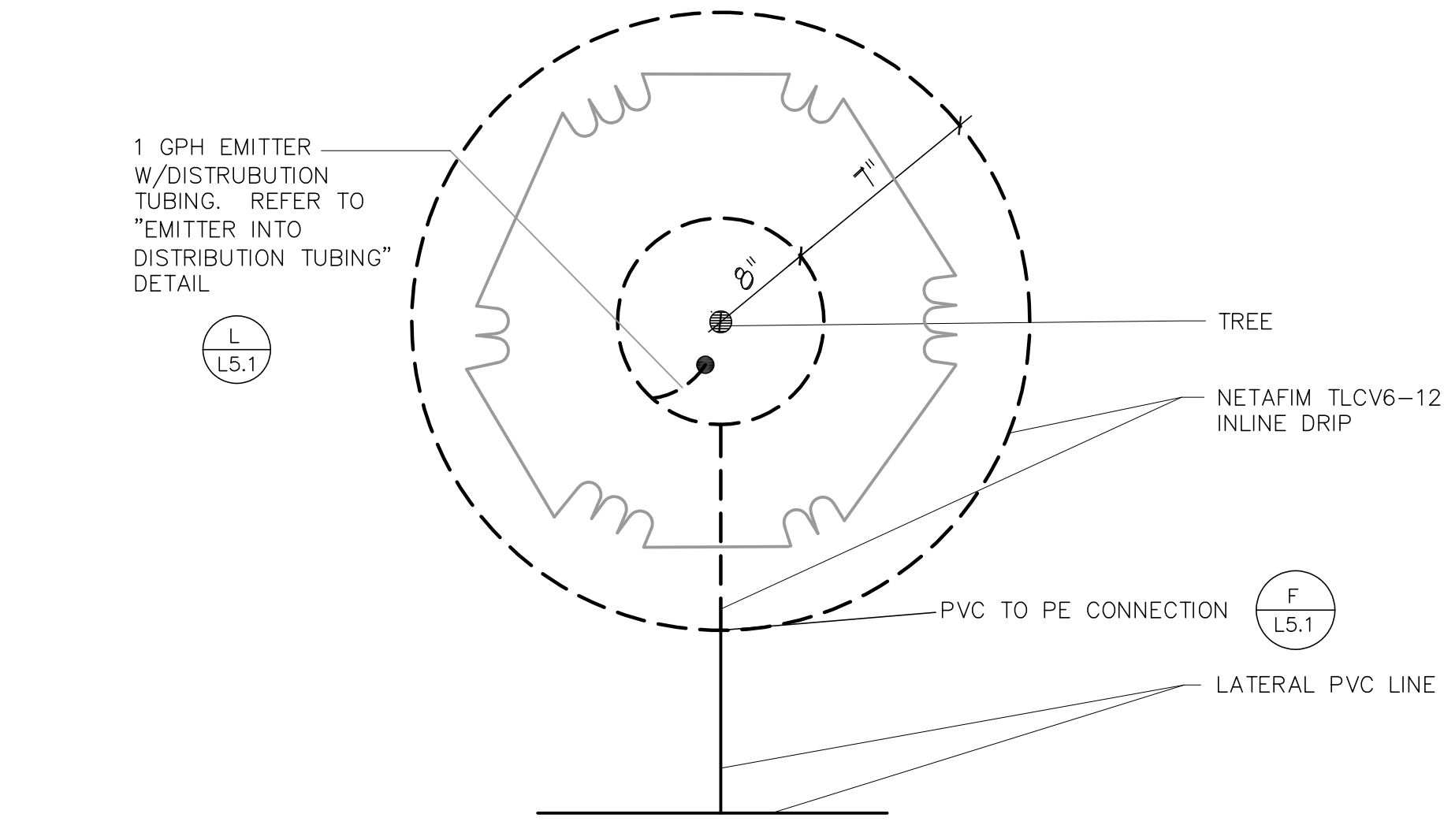
G Inline Drip Layout for Small Areas
NO SCALE



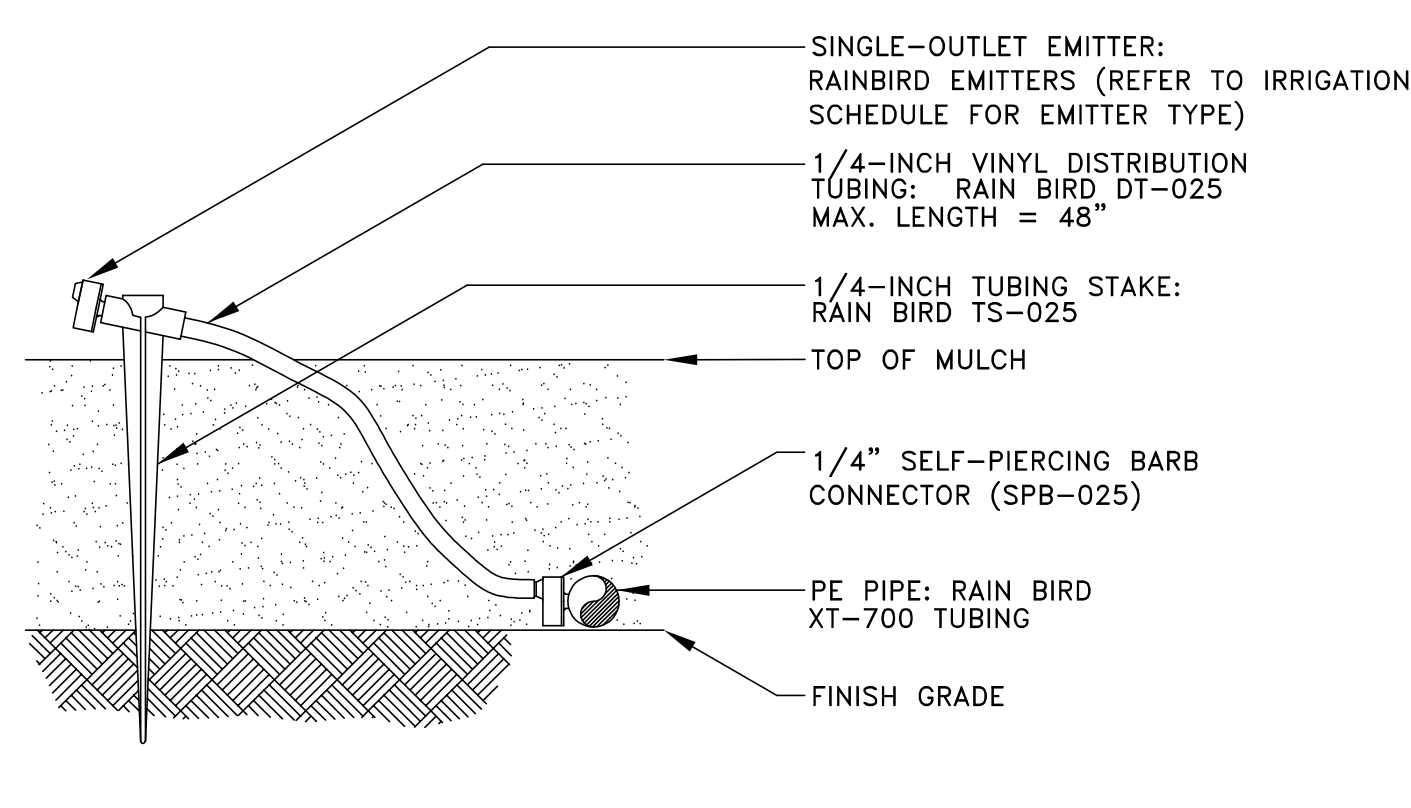
H Techline Air/Vacuum Relief
Not to Scale



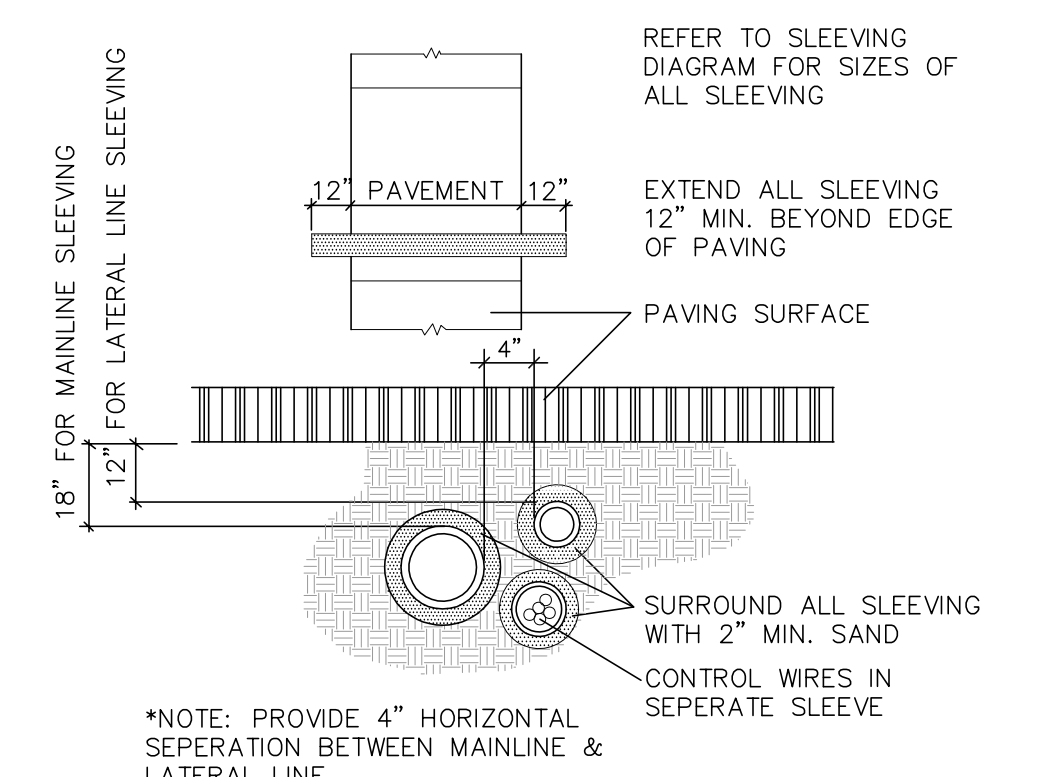
J Techline Line Flushing Valve
Not to Scale



K Tree Drip (New Tree) Plan View
NO SCALE



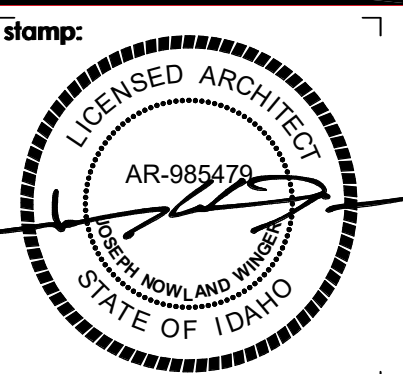
L Emitter into Distribution Tubing (Tree Drip)
NO SCALE



M Typical Sleeving Detail
NO SCALE

num.	description	date
1	revision: X	

date: 02.14.2022
project number: 216572
project status: Permit & Bid Set
original drawing is 30" x 42"
current as of 2/26/2022 6:04:40 PM
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**MUSGROVE
ENGINEERING, P.A.**

Bill A. Carter, P.E. – Principal
Todd D. Nelson, P.E. – Principal
Kurt E. Lechtenberg, P.E. – Principal
Jason A. Rice, P.E. – Principal
Thad S. Mason, P.E. – Principal
Matthew N. Bradley, P.E. – Principal

July 27, 2022

Bluebird Village – GMD Development LLC

City Review Comments:

The following Narrative for the Snow Melt System and requirements:

Snow Melt System:

- Please provide a narrative response explaining how snowmelt system complies with these snowmelt requirements for commercial project:*
 - All sidewalks and alley way will have snow melt per cities requirements.
- Snowmelt systems installed in the public right-of-way shall be installed and operate at all times during the winter according to the following:*
 - A snow melt controller is installed along with outside air temperature sensors and snow/ice sensors for each zone.
- The system shall meet the requirements of the International Energy Conservation Code (2018 IECC, 403.12.2)*
 - The snow melt system meets the required code.
 - See Sequence of Operation below:

GENERAL:

The Snowmelt System shall consist of snow / ice melt sensors, slab sensors, lead/lag heating water pumps, two control valve at each snow melt manifold, natural gas boiler and snow melt radiant in-slab pipe.

OPERATION:

The Snowmelt System shall be enabled to idle mode whenever the outside air temperature is 40°F (adjustable) or lower and no moisture is detected. In idle mode, the heating water pump and boiler system shall be enabled. The Snowmelt System shall maintain a slab temperature of 40°F (adjustable) in idle mode. The boiler system shall maintain supply temperature of 90°F (adjustable) in idle mode.

When the outside air temperature is above 40°F (adjustable) the Snowmelt System shall stop the heating pumps and boiler system.

When the Snowmelt System detects moisture, and the outside air temperature is below 40°F (adjustable) the Snowmelt System shall start in melting mode. In melting mode, the heating water pump and boiler system shall be enabled. The Snowmelt System shall maintain a slab temperature of 38°F (adjustable) until the moisture sensor does not detect moisture. The boiler system shall maintain a supply temperature of 130°F (adjustable) in melting mode. The Snowmelt System shall return to idle mode when the moisture sensor is not sensing moisture.

If lead heater water pump fails, the lag heater water pump shall start. An alarm shall be sent to the operator's workstation on failure of pump to start.

- The system shall have an electronic main control board to operate the system that is programmable and optimizes the way the system functions.*
 - A snow melt controller is installed along with outside air temperature sensors and snow/ice sensors for each zone.
- Installation of in-ground control sensors linked to the main control board that detect snow and ice on the surface, monitor the sidewalk or driveway temperature, and automatically activates the system to be turned on or off based on the snow condition and air temperature.*
 - A snow melt controller is installed along with outside air temperature sensors and snow/ice sensors for each zone.
- See attached sheets for more information.

BOISE OFFICE:

234 S. Whisperwood Way
Boise, Idaho 83709
208-384-0585

IDAHO FALLS OFFICE:

645 W. 25TH Street
Idaho Falls, Idaho 83402
208-523-2862



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Babcock Design

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SUITE 940
BOISE, ID 83702
208.424.7675

Salt Lake City
52 Exchange Place
Salt Lake City, UT 84111
801.531.1144

babcockdesign.com

KEYED NOTES:

- ① SYMBOL USED FOR CALLOUT
- 1. MANIFOLD LOCATION.

Revisions:

num.	description	date
4	City 3rd Rnd Comments	7.12.22

date: 02.14.2022

project number: 216572

project status: PERMIT SET

original drawing is 30" x 42"

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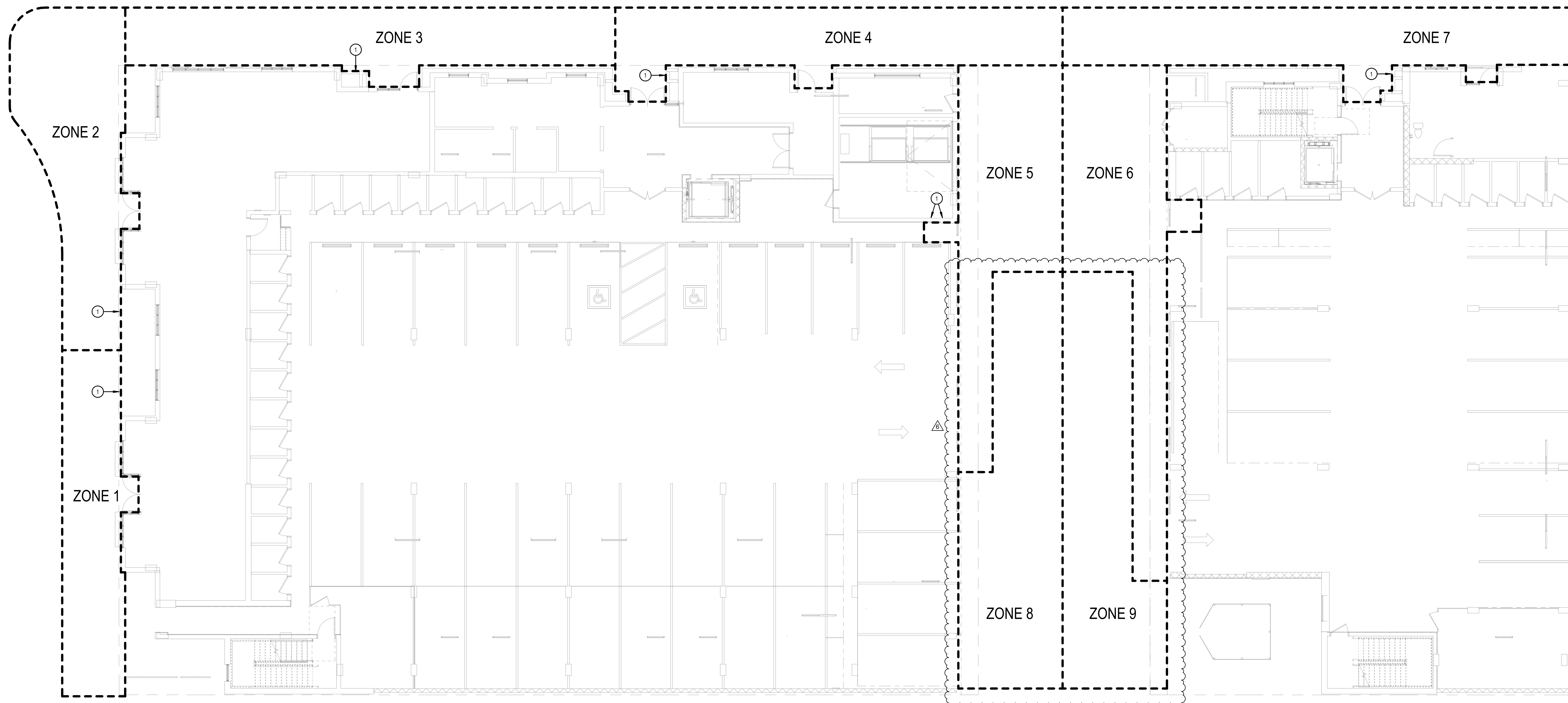
COMPILED © 2019 BABCOCK DESIGN

stamp:



project information:

BLUEBIRD VILLAGE
for
GMD DEVELOPMENT LLC
480 N. EAST AVE. KETCHUM, ID 83340



1 SNOW MELT ZONE PLAN
1/8" = 1'-0"

sheet number:

M301

SNOW MELT FLOOR PLAN

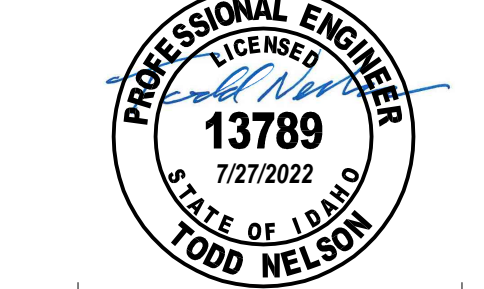
revisions:

num.	description	date
4	City 2nd Rnd Comments	6.14.22
6	City 3rd Rnd Comments	7.12.22

date: 02.14.2022
 project number: 216572
 project status: PERMIT SET

original drawing is 36" x 48"
 current sheet: 12/27/2022 9:14:35 AM
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stamp:
 stamp:



BLUEBIRD VILLAGE for GMD DEVELOPMENT LLC
 480 N. EAST AVE. KETCHUM, ID 83340

PROJECT INFORMATION:
 date: 02.14.2022
 project number: 216572
 project status: PERMIT SET

SNOW MELT SCHEDULES AND DETAILS
 sheet title:
 sheet number:

GENERAL:
 THE SNOWMELT SYSTEM SHALL CONSIST OF SNOW / ICE MELT SENSORS, SLAB SENSORS, LEADLAG HEATING WATER PUMPS, TWO CONTROL VALVE AT EACH SNOW MELT MANFOLD, NATURAL GAS BOILER AND SNOW MELT RADIANT IN-SLAB PIPE.

OPERATION:
 THE SNOW MELT SYSTEM SHALL BE ENABLED TO IDLE MODE WHENEVER THE OUTSIDE AIR TEMPERATURE IS 40°F (ADJUSTABLE) OR LOWER AND NO MOISTURE IS DETECTED. IN IDLE MODE THE HEATING WATER PUMP AND BOILER SYSTEM SHALL BE ENABLED. THE SNOW MELT SYSTEM SHALL MAINTAIN A SLAB TEMPERATURE OF 40°F (ADJUSTABLE) IN IDLE MODE. THE BOILER SYSTEM SHALL MAINTAIN SUPPLY TEMPERATURE OF 90°F (ADJUSTABLE) IN IDLE MODE.

WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 40°F (ADJUSTABLE) THE SNOW MELT SYSTEM SHALL STOP THE HEATING PUMPS AND BOILER SYSTEM.

WHEN THE SNOW MELT SYSTEM DETECTS MOISTURE AND THE OUTSIDE AIR TEMPERATURE IS BELOW 40°F (ADJUSTABLE) THE SNOW MELT SYSTEM SHALL START IN MELTING MODE. IN MELTING MODE THE HEATING WATER PUMP AND BOILER SYSTEM SHALL BE ENABLED. THE SNOW MELT SYSTEM SHALL MAINTAIN A SLAB TEMPERATURE OF 38°F (ADJUSTABLE) UNTIL THE MOISTURE SENSOR DOES NOT DETECT MOISTURE. THE BOILER SYSTEM SHALL MAINTAIN A SUPPLY TEMPERATURE OF 180°F (ADJUSTABLE) IN MELTING MODE. THE SNOW MELT SYSTEM SHALL RETURN TO IDLE MODE WHEN THE MOISTURE SENSOR IS NOT SENSING MOISTURE.

IF LEAD HEATER WATER PUMP FAILS THE LAG HEATER WATER PUMP SHALL START. AN ALARM SHALL BE SENT TO THE OPERATORS WORKSTATION ON FAILURE OF PUMP TO START.

1 SNOW MELT BOILER CONTROL SCHEMATIC
 12" = 1'-0"

2 SNOW MELT CONTROL SCHEMATIC
 NTS

CONDENSING HOT WATER BOILER SCHEDULE

SYMBOL	AREA SERVED	THERMAL EFFICIENCY	FUEL	EWT (°F)	LWT (°F)	BOILER FLOW (GPM)	MAX P.D. (FT HD)	CAPACITY		MANUFACTURER AND MODEL	REMARKS
								INPUT MBH	OUTPUT MBH		
B-101	SNOW MELT SYSTEM	95%	NAT. GAS	110	130	69.0	5.3	705	613	LOCKINVAR MODEL FTXL-725	1, 2, 3
B-102	SNOW MELT SYSTEM	95%	NAT. GAS	110	130	69.0	5.3	705	613	LOCKINVAR MODEL FTXL-725	1, 2, 3

- REMARKS:
- APPROVED ALTERNATE MANUFACTURERS: SUBMIT FOR APPROVAL.
 - PROVIDE BOILER VENTING KIT, NEUTRALIZING KIT, COMBUSTION AIR INTAKE KIT, SEISMIC VIBRATION ISOLATORS, LOW WATER CUT-OFF, FLOW SWITCH, MODULATING GAS BURNER, CONDENSATE TRAP, 316L STAINLESS STEEL COMBUSTION CHAMBER, EXHAUST PIPE, CSD-1 AND OSA RESET.
 - BOILER SHALL BE PROVIDED W/FACTORY START-UP. START-UP IS NOT COMPLETE UNTIL ALL BURNERS AND BLOWER ARE CALIBRATED FOR PEAK PERFORMANCE AND AT COMPLETION OF PROJECT ALL BURNERS, BLOWERS, HEAT EXCHANGERS, AND OTHER INTERNAL PARTS SHALL BE THOROUGHLY CLEANED OF CONSTRUCTION DEBRIS.

BOILER PUMP SCHEDULE

SYMBOL	AREA SERVED	TYPE	CAPACITY			MOTOR			SUCTION DIFFUSER	TRIPLE DUTY VALVE	OPERATING WEIGHT (LBS)	MANUFACTURER AND MODEL	REMARKS
			FLOW (GPM)	HEAD (FT)	MIN EFF	AMPS	RPM	V/Ø					
BP-101	SNOW MELT SYSTEM	INLINE	69.0	30	---	2.5	---	115/1	N/A	N/A	50	GRUNDFOS MAGNA3 40-80	1, 2
BP-102	SNOW MELT SYSTEM	INLINE	69.0	30	---	2.5	---	115/1	N/A	N/A	50	GRUNDFOS MAGNA3 40-80	1, 2

- REMARKS:
- APPROVED ALTERNATE MANUFACTURERS: ARMSTRONG, B & G, TACO, WILO, PACO, PEERLESS, PATTERSON.
 - CONTROL PUMP THROUGH CONDENSING BOILER.

PUMP SCHEDULE

SYMBOL	AREA SERVED	TYPE	CAPACITY			MOTOR			SUCTION DIFFUSER	TRIPLE DUTY VALVE	OPERATING WEIGHT (LBS)	MANUFACTURER AND MODEL	REMARKS
			FLOW (GPM)	HEAD (FT)	MIN EFF	HP	RPM	V/Ø					
P-101	SNOW MELT SECONDARY LOOP	INLINE	50	35	---	3/4	---	208/1	N/A	N/A	30	BELL AND GOSSET ECOCIRC XL MODEL 65-130	1, 2, 3, 4, 5
P-102	SNOW MELT SECONDARY LOOP	INLINE	50	35	---	3/4	---	208/1	N/A	N/A	30	BELL AND GOSSET ECOCIRC XL MODEL 65-130	1, 2, 3, 4, 5

- REMARKS:
- APPROVED ALTERNATE MANUFACTURERS: ARMSTRONG, GRUNDFOS, TACO, WILO, PACO, PEERLESS, PATTERSON.
 - PROVIDE UNIT WITH PREMIUM EFFICIENCY MOTOR WITH INTEGRAL VFD.
 - PUMP SEALS SHALL BE COMPATIBLE WITH PROPYLENE GLYCOL.
 - NOTE CONTROL BASED PRESSURE. DIFFERENTIAL (VARIABLE FLOW). PUMPS TO OPERATE IN PARALLEL. BOTH PUMPS SHALL START ON CALL FOR HEATING.
 - SUPPORT PUMP FROM STRUCTURE.

SNOW MELT MANIFOLD SCHEDULE

ZONE #	AREA (ft ²)	INSULATION Rv (°F x ft ² x hr/Btu)	HEAT LOAD (Btu/hr-ft ²)	# OF LOOPS	TUBE TYPE & SIZE	TUBE SPACING (in)	SUPPLY WATER (°F)	DESIGN TEMP. DROP (°F)	SURFACE TEMP (°F)	FLOW RATE (GPM)	HEAD LOSS (PSI)	REMARKS
SNOWMELT ZONE 1	495	10.0	130	4	hdPEX 3/4"	9" O.C.	130	25	35	6.5	3.5	1, 2, 3, 4, 5
SNOWMELT ZONE 2	765	10.0	130	6	hdPEX 3/4"	9" O.C.	130	25	35	10.1	3.8	1, 2, 3, 4, 5
SNOWMELT ZONE 3	775	10.0	130	6	hdPEX 3/4"	9" O.C.	130	25	35	10.2	3.9	1, 2, 3, 4, 5
SNOWMELT ZONE 4	735	10.0	130	6	hdPEX 3/4"	9" O.C.	130	25	35	9.7	3.4	1, 2, 3, 4, 5
SNOWMELT ZONE 5	790	10.0	130	6	hdPEX 3/4"	9" O.C.	130	25	35	10.4	4.1	1, 2, 3, 4, 5
SNOWMELT ZONE 6	920	10.0	130	7	hdPEX 3/4"	9" O.C.	130	25	35	12.1	4.1	1, 2, 3, 4, 5
SNOWMELT ZONE 7	810	10.0	130	7	hdPEX 3/4"	9" O.C.	130	25	35	10.7	2.9	1, 2, 3, 4, 5
SNOWMELT ZONE 8	1,160	10.0	130	9	hdPEX 3/4"	9" O.C.	130	25	35	15.3	3.9	1, 2, 3, 4, 5
SNOWMELT ZONE 9	1,050	10.0	130	8	hdPEX 3/4"	9" O.C.	130	25	35	13.8	4.1	1, 2, 3, 4, 5

- REMARKS:
- SNOW MELT CIRCUITS TO BE EQUAL LENGTHS OFF EACH MANIFOLD WITH A 300 FT MAXIMUM TUBE LENGTH. PROVIDE A BALL VALVE FOR EACH OF THE LOOPS. RADIANT FLOOR MANIFOLD DESIGN BASED ON UPONOR STAINLESS STEEL MANIFOLD WITH ISOLATION VALVES AND VISUAL FLOW GAUGES. ALTERNATES SHALL BE EQUAL IN QUALITY AND PERFORMANCE.
 - PANEL TUBING TO BE WITHIN 4" OF PERIMETER.
 - PROVIDE A 35% PROPYLENE GLYCOL 65% WATER SOLUTION.
 - TUBING TO BE RATED FOR 180°F AT 100 PSI SERVICE.
 - TUBING FOR SNOW MELT SYSTEM MUST BE LAID OUT IN A COUNTER FLOW PATTERN. SEE DETAIL ON SHEET MA.3.

MECHANICAL SPECIALTY EQUIPMENT SCHEDULE

SYMBOL	EQUIPMENT DESCRIPTION	SYSTEM SERVED	DESCRIPTION	MANUFACTURER AND MODEL
AS-101	INLINE AIR SEDIMENT SEPARATOR	HYDRONIC SYSTEM	DESIGN FLOW IS 75 GPM WITH A DESIGN PD OF 1.0 FT-H ₂ O	B & G MODEL 3" ALTERNATE APPROVED MANUFACTURERS: TACO, ARMSTRONG, AND PACO
ET-101	EXPANSION TANK (HORIZONTAL DIAPHRAGM TYPE)	HYDRONIC SYSTEM	21.7 GAL. CAPACITY, 11.3 ACCEPTANCE GAL., BALLADDER TYPE EXPANSION TANK. (PRE-CHARGED TO 12 PSI)	BELL AND GOSSET HORIZONTAL D-40 ALTERNATE APPROVED MANUFACTURERS: TACO, ARMSTRONG, AND PACO
GT-101	SINGLE PUMP GLYCOL FEEDER	HYDRONIC SYSTEM	PROVIDE WITH LOW LEVEL CUT-OFF AND ALARM ARRANGEMENT INCLUDING A 110V SIGNAL FOR REMOTE ALARM, ISOLATION VALVES, STRAINER, PRESSURE TANK WITH PRESSURE CONTROL, PRESSURE REDUCING VALVE AND GAUGE, 55 GAL. TRANSLUCENT POLYETHYLENE SOLUTION CONTAINER WITH LID TO ACCOMMODATE RELIEF VALVE PIPING (110V, 60 HZ MOTOR AND CONTROLS WITH PLUG AND CORD). PRESET SYSTEM TO 12 PSI. SOLUTION SHALL BE 40% DOWFROST PROPYLENE GLYCOL WITH INHIBITOR AND 60% WATER.	AXIOM MODEL SF100 ALTERNATE APPROVED MANUFACTURERS: WESSELS
PF-101	POT FEEDER	HYDRONIC SYSTEM	5 GALLON POT FEEDER MOUNTED ON WALL 36" A.F.F.	JL WINGERT ALTERNATE APPROVED MANUFACTURERS: SUBMIT FOR APPROVAL

GENERAL NOTES (SNOW MELT SYSTEM):

- SEE SPECIFICATION DIVISION 230100 FOR PIPING SYSTEM REQUIREMENTS.
- SCHEMATIC IS FOR GENERAL INFORMATION (PIPE SIZES, VALVE TYPE AND LOCATIONS, AND OTHER PIPING COMPONENTS). SEE FLOOR PLANS FOR LAYOUT AND ROUTING. REFER TO THE EQUIPMENT MANUFACTURER'S INSTALLATION MANUALS FOR SPECIFIC REQUIREMENTS.
- PROVIDE AIR VENTS AT ALL HIGH POINTS IN SYSTEM. ALL AIR VENTS LOCATED IN MECHANICAL ROOM SHALL BE AUTOMATIC AIR VENTS PIPED TO DRAIN. ALL OTHER AIR VENTS SHALL BE MANUAL.
- SUPPORT PIPING INDEPENDENTLY OF EQUIPMENT CONNECTION.
- ALL EQUIPMENT SHALL BE SECURED TO HOUSEKEEPING PADS.
- ALL VALVES SHALL BE LOCATED IN ACCESSIBLE LOCATIONS.
- KEEP PIPING HIGH IN THE SPACE AND OUT OF NORMAL WALKING AND WORK AREAS.
- REFER TO THE CONTROL SCHEMATICS FOR REQUIRED LOCATIONS OF PIPING WELLS FOR THE CONTROL SYSTEM.

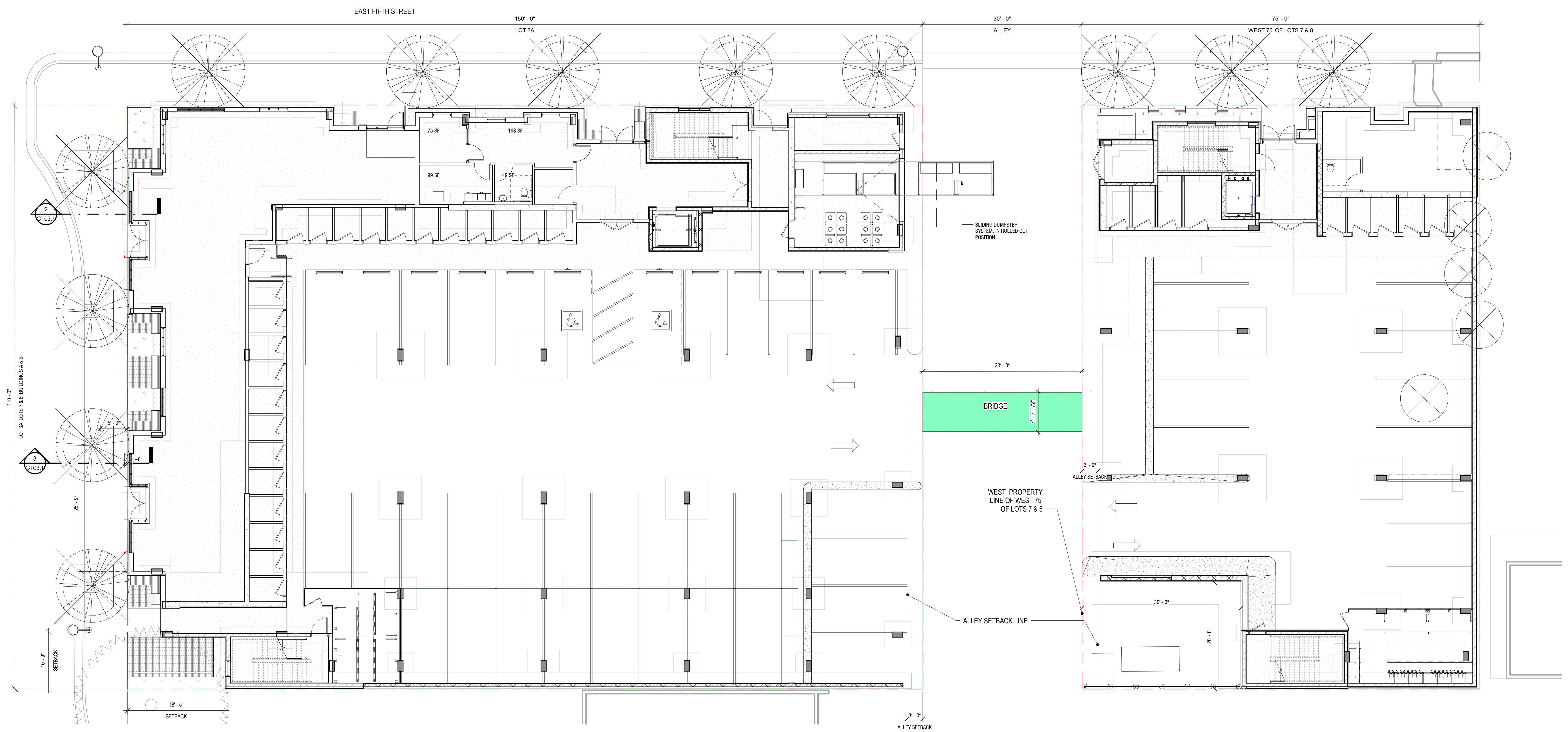
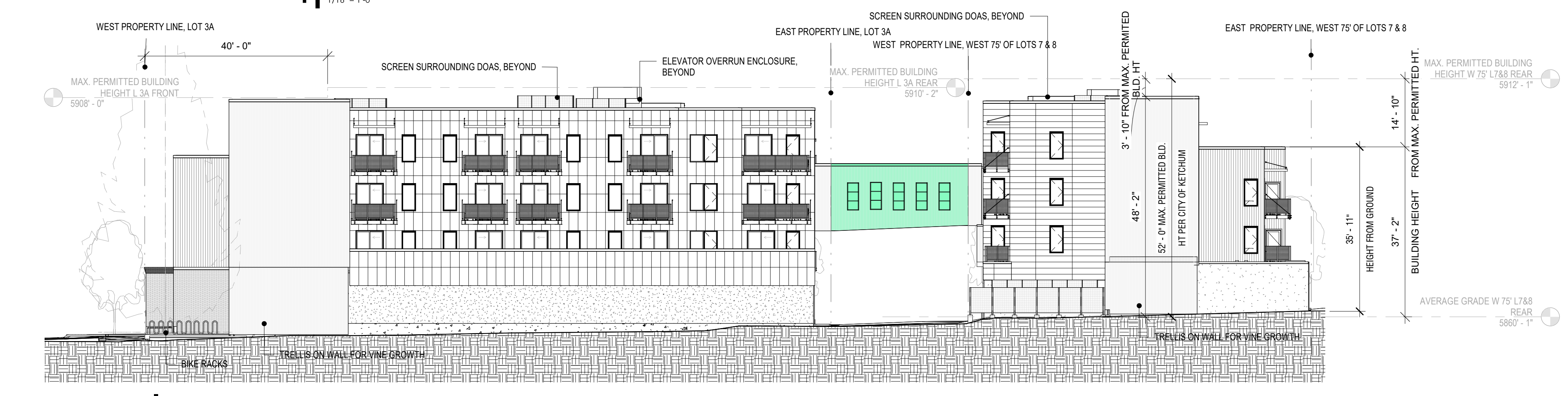
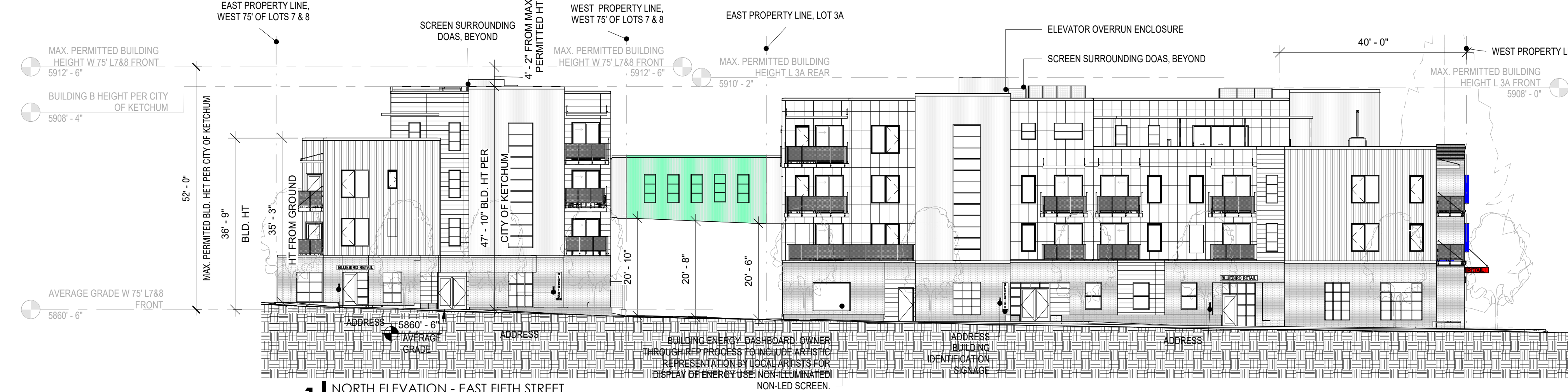
KEYED NOTES (SNOW MELT SYSTEM):

- REFER TO THE BOILER PIPING DETAIL FOR ADDITIONAL REQUIREMENTS.
- INLINE AIR SEPARATOR.
- GLYCOL MAKE-UP PACKAGE.
- SUSPENDED DIAPHRAGM TYPE EXPANSION TANK.
- ROUTE FULL SIZE CPVC CONDENSATE LINE THROUGH NEUTRALIZING KIT TO FLOOR SINK. (TYPICAL).
- POT FEEDER.
- CHECK VALVE (TYPICAL).
- B&G HIGH VELOCITY AIR VENT, MODEL 107A, (TYPICAL)

3 SNOW MELT SYSTEM PIPING SCHEMATIC
 NTS
 12" = 1'-0"

4 SNOWMELT TUBING INSTALLATION DETAIL
 12" = 1'-0"

Labels for diagrams include: CONCRETE SLAB, EDGE INSULATION, PAVERS, SAND OR SETTING BED, ASPHALT, MINIMUM 2" OF SAND, WIRE TIE, R-10 SLAB INSULATION, WIRE MESH, REBAR OR STAPLE TO RIGID FOAM, UPONOR TUBING, WIRE MESH, REBAR OR STAPLE TO RIGID FOAM, COLD WATER MUST BE RUN THROUGH THE TUBING DURING POUR.



ENCROACHMENT LEGEND

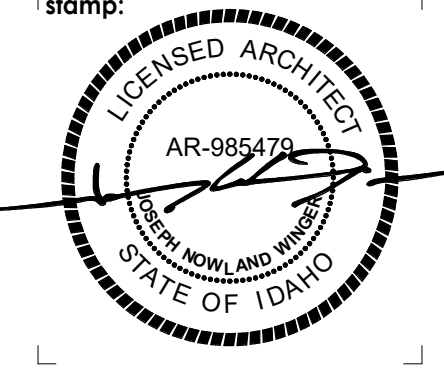
PEDESTRIAN BRIDGE - 21 FEET ABOVE ALLEY	[Green Box]
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Revisions:

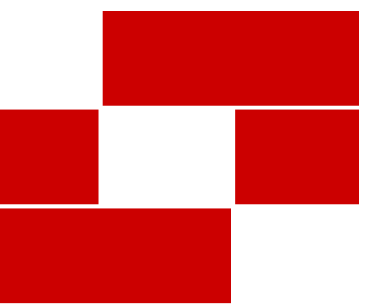
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4	City 2nd Rnd Comments	04.14.22
5	City 3rd Rnd Comments	7.12.22

date: 02.14.2022
 project number: 216572
 project status: Permit Set
 original drawing is 36" x 42"
 current as of: 7/27/2022 3:45:08 PM



project information:
BLUEBIRD VILLAGE
 for: GMD DEVELOPMENT LLC
 480 N. EAST AVE. KETCHUM, ID 83340

sheet number:
G103.0

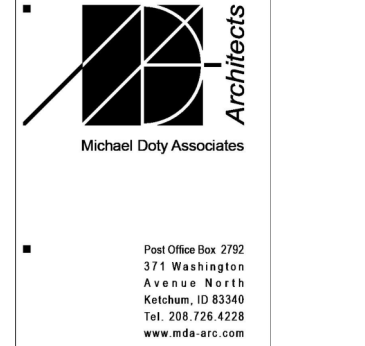


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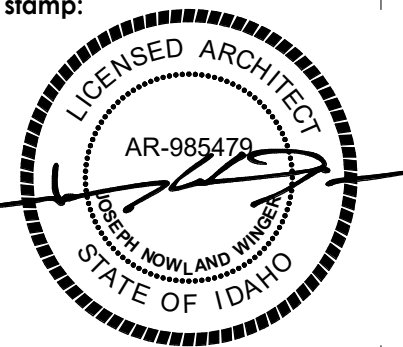


Revisions:		
num.	description	date
5	City 3rd Rnd Comments	7.12.22

date:	02.14.2022
project number:	216572
project status:	Permit Set

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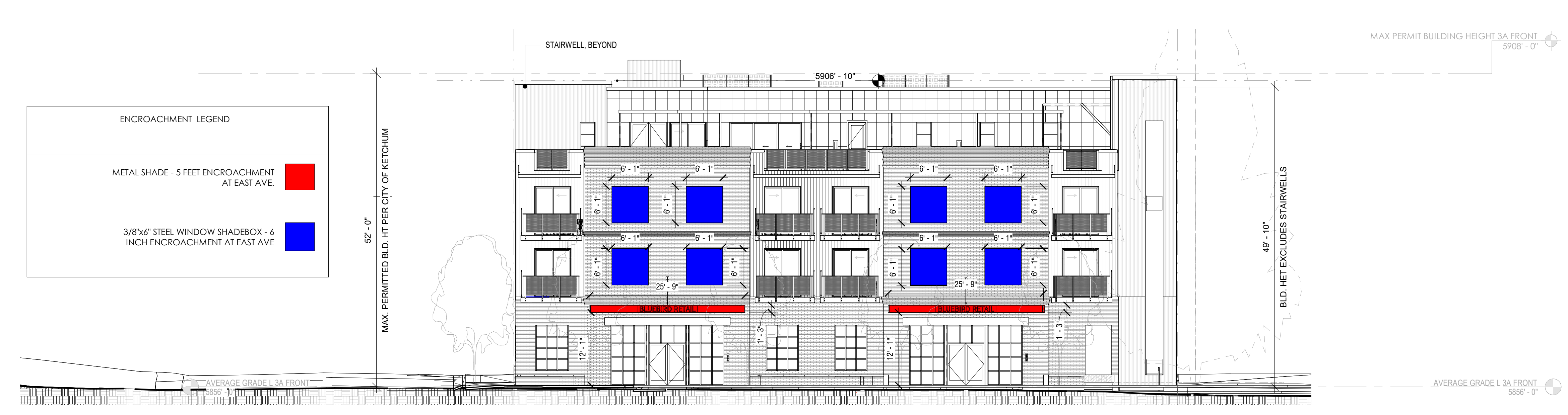
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BLUEBIRD VILLAGE
for:
GMD DEVELOPMENT LLC
480 N. EAST AVE. KETCHUM, ID 83340

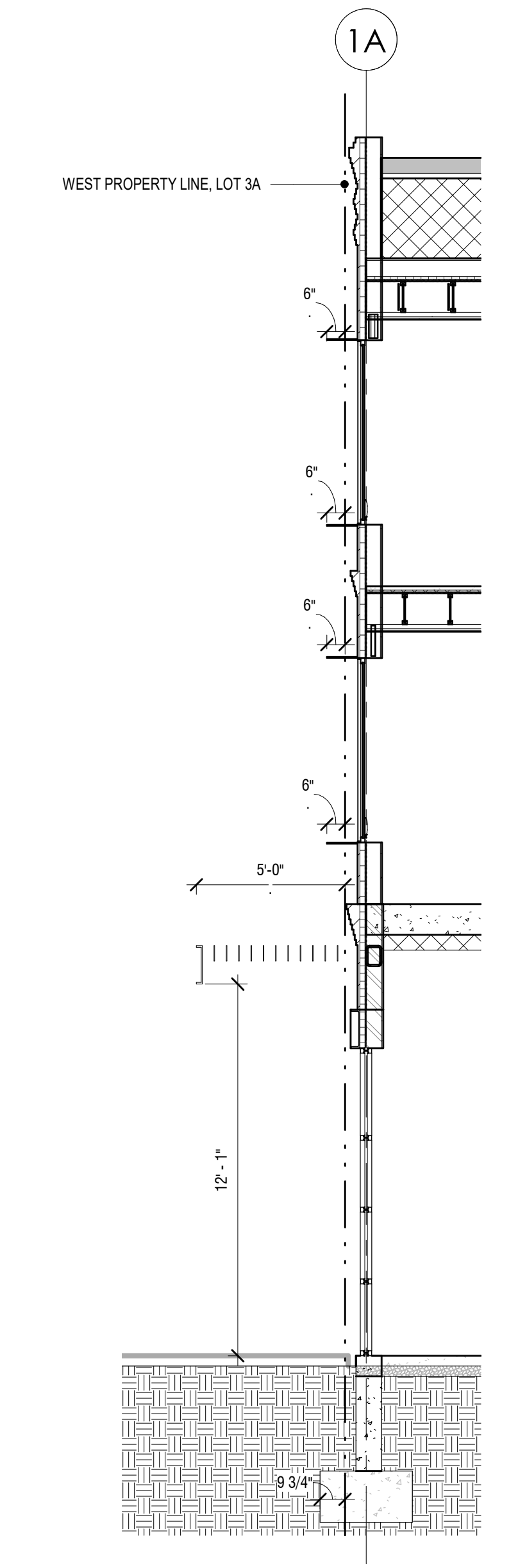
RIGHT OF WAY ENCROACHMENT ELEVATIONS AND SECTIONS

sheet number:

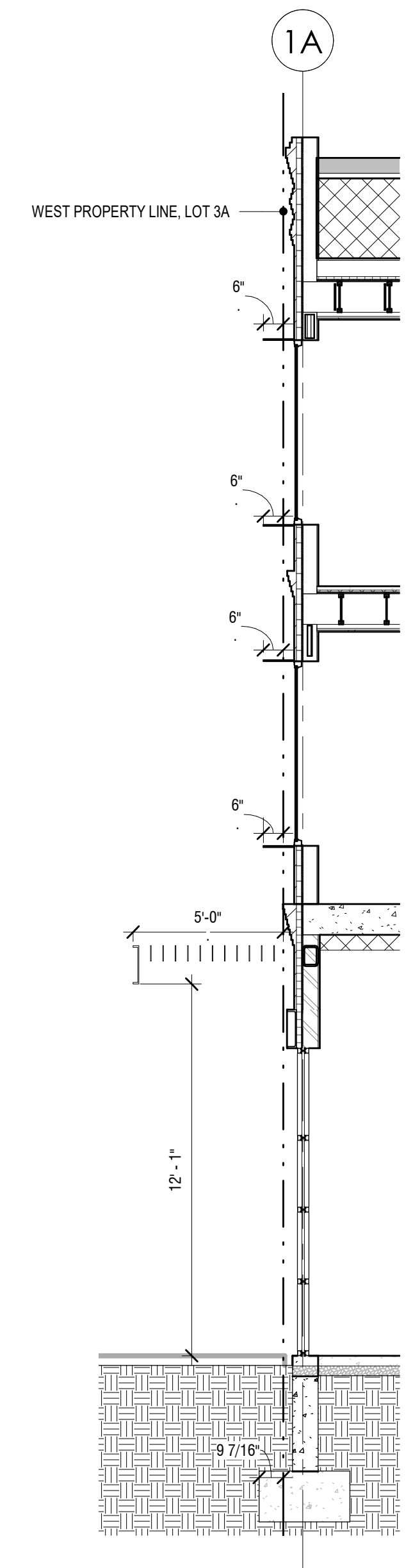
G103.1



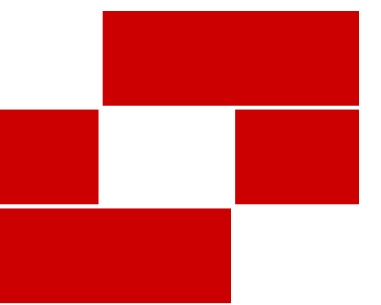
1 WEST ELEVATION - NORTH EAST AVENUE
3/32" = 1'-0"



2 ENCROACHMENT SECTION
1/4" = 1'-0"



3 ENCROACHMENT SECTION
1/4" = 1'-0"



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5	City 3rd Rnd Comments	7.12.22

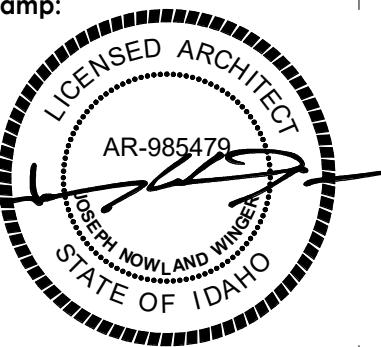
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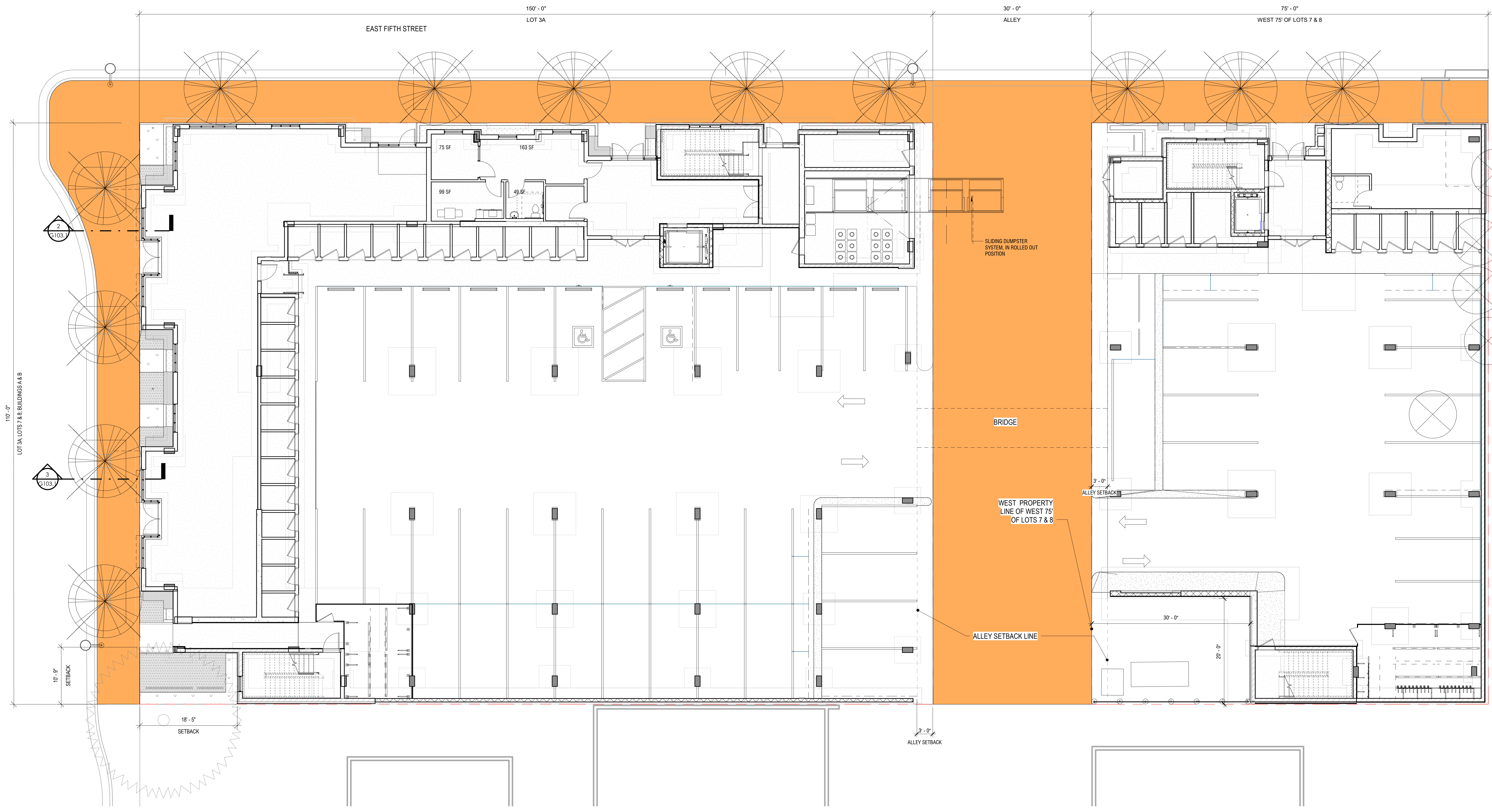
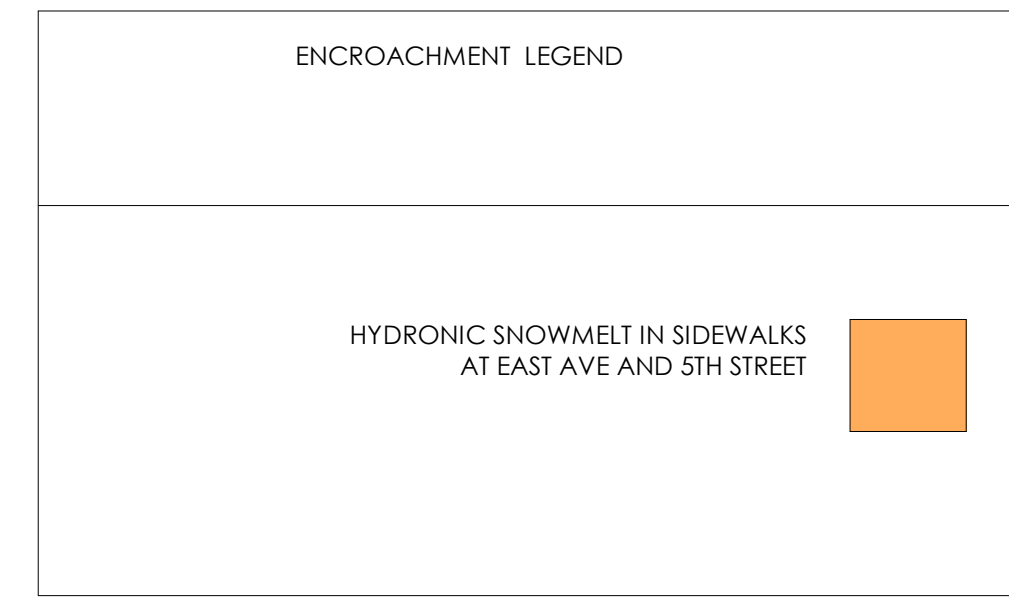
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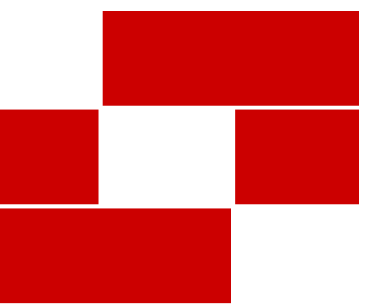
BLUEBIRD VILLAGE
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480 N. EAST AVE. KETCHUM, ID 83340

RIGHT OF WAY ENCROACHMENT PLAN - SNOW MELT



1 FIRST FLOOR ENCROACHMENT PLAN - SNOW MELT
1/8" = 1'-0"

sheet number:
G103.2



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sheet information:

num.	description	date
5	City 3rd Rnd Comments	7.12.22

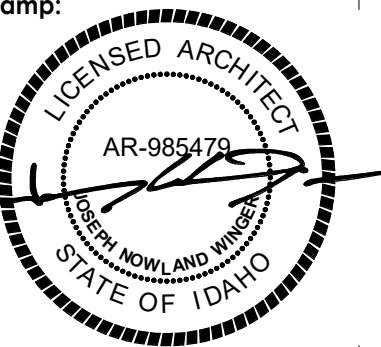
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project number: 216572

project status: Permit Set

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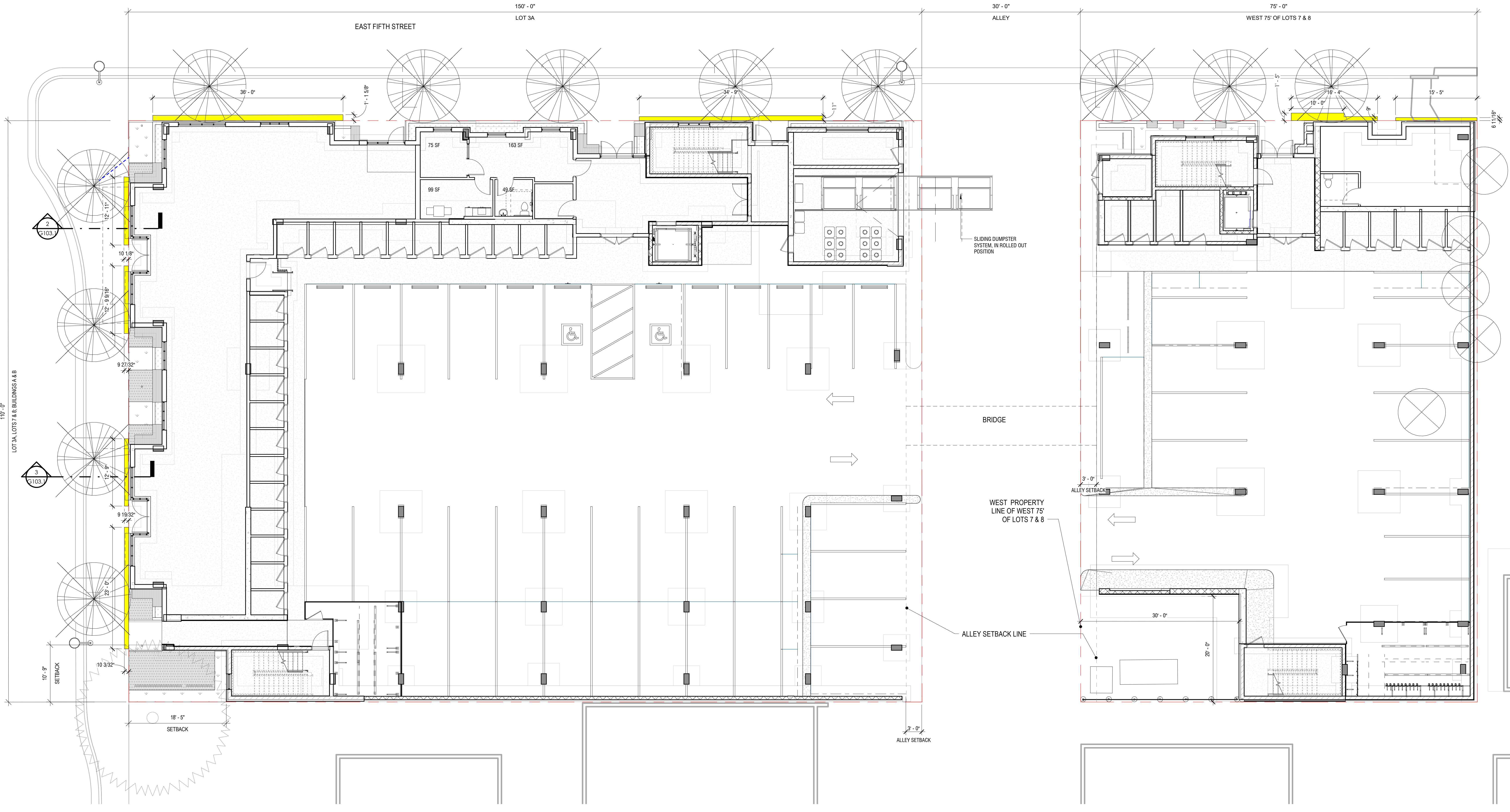
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for:
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480 N. EAST AVE. KETCHUM, ID 83340

RIGHT OF WAY ENCROUCHMENT PLAN - FOOTING AND FOUNDATION

sheet number:

G103.3

ENCROACHMENT LEGEND	
FOOTING FOUNDATION ENCROACHMENT	



2 | FIRST FLOOR ENCROUCHMENT PLAN - FOOTINGS
1/8" = 1'-0"

EXHIBIT B

EXHIBIT B

1. Installation of a hydronic snow melt system in all surfaces as outlined on sheet G103.2 and as further described:
 - a. From the outermost bounds of the property line along East avenue to the back of curb within the City right-of-way, excluding tree wells.
 - b. From the outermost bounds of the property line along Fifth Street to the back of curb within the City right-of-way, excluding the tree wells.
 - c. From the outermost bounds of the property line along the alley within the City right-of-way.

2. Encroachment for (2) metal shades 5 foot encroachment at east ave. as outlined on sheet G103.1. (8) 3/8" x 6" steel window shade-boxes 6" encroachment at east avenue as outlined on sheet G103.1 and as further described below.
 - a. (2) Metal shades, as referenced on sheet G103.1, projects 5'-0" west of the property line. Length of metal shades is 25'-9". Bottom of awning is approximately 12'-1" above finished grade at sidewalk below. Top of awning is approximately 13'-4" above finished grade at sidewalk below. Height varies slightly with sidewalk grade.

 - b. (8) 3/8" x 6" steel window shade boxes project 6" west of property line as referenced on sheet G103.1 Length of architectural features is 6'-1". The height of the architectural features is 6'-1". The bottom of the lower architectural features, is 16'-7" above finished grade at sidewalk below. Top of the lower architectural feature is 22'-8" above finished grade at sidewalk below. Height varies with sidewalk grade. The bottom of the upper architectural features is 27'-0" above finished grade at sidewalk below. Top of upper architectural feature is 33'-1" above finished grade at sidewalk below. Height varies with sidewalk grade.

3. Encroachment for bridge at alley within the City right-of-way as outlined on sheet G103.0. and as further described below.
 - a. (1) bridge, as referenced on sheet G103.0, projects 30'-0" west to east, by 7'-7 1/2" north to south past the property line into the city right-of-way. Bottom of bridge varies from east to west and is approximately 20'-10" and 20'-6" respectively above finished grade at alley below. Top of bridge varies from west to east and is approximately 34'-7 5/8" and 35'-1 3/4" respectively above finished grade at alley below.

4. Encroachment for building footings within the City right-of-way as outlined on sheet G103.3 at east avenue and fifth street. Footings vary in size and length. Refer to sheet G103.3, footing encroachment into the ROW. Footings do not encroach into city ROW more than 1'-1 5/8"