

GENERAL NOTES:

- I. SITE SURVEY AND TOPOGRAPHIC BASE MAP PREPARED BY DMG ENGINEERING, INC. 30 OAKYUE COURT, PLEASANT HILL, CA 94523. (925) 787-0463. DATED 2-3-2021. BASIS OF ELEVATION: ELEVATIONS SHOWN ARE ON AN ASSUMED DATUM. NAIL \$ 2-1/4" SHINER IN BROOKDALE AVENUE, ELEVATION = 100.00 FEET.
- 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES OR IMPROVEMENTS HAS NOT BEEN VERIFIED BY THE ENGINEER AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF INFORMATION SHOWN ON THE DRAWINGS. THE CONSTRUCTION CONTRACTOR MUST NOTIFY UTILITY COMPANIES AT LEAST TWO WORKING DAYS BEFORE EXCAVATION AND REQUEST FIELD LOCATION OF ALL UNDERGROUND UTILITIES. CALL UNDERGROUND SERVICE ALERT (USA) AT 811 OR 800-227-2600. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE LOCAL UTILITY ENGINEER, AT THE SOLE EXPENSE OF THE CONTRACTOR. ANY PROPERTY DAMAGE OR DAMAGE TO CONSTRUCTED FACILITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND OWNER AT THE SOLE EXPENSE OF THE CONTRACTOR.

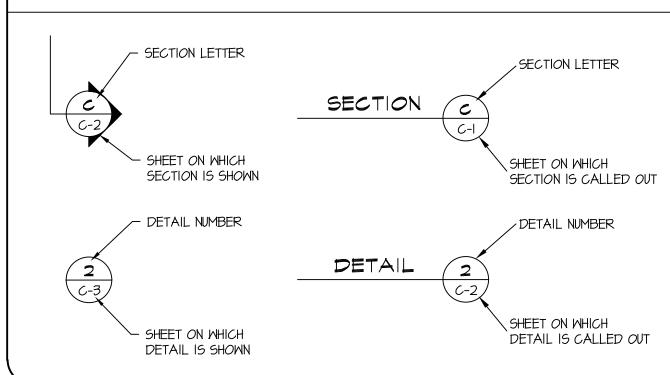
EROSION CONTROL PLAN

AN APPROYED EROSION CONTROL PLAN IS REQUIRED FOR ALL I PROJECTS INVOLVING EXCAVATION, DRILLING, OTHER EARTHWORK OR EXPOSED BARE SOIL. THE PLAN MUST BE SUBMITTED TO THE TOWN ENGINEER AND APPROVED PRIOR TO STARTING WORK. IMPLEMENT EROSION CONTROL MEASURES YEAR ROUND AS APPROPRIATE. REGULARLY MONITOR EROSION CONTROL MEASURES AND PROMPTLY REPAIR OR REPLACE ANY DAMAGED OR INEFFECTIVE EROSION CONTROL MEASURES AS REQUIRED BY THE EROSION CONTROL PLAN. A SIGNED COPY OF THE EROSION CONTROL PLAN MUST BE POSTED AT THE WORK SITE.

RETAINING WALL AND FOUNDATION ELEVATIONS

BUILDING FOOTING, GRADE BEAM AND FOUNDATION WALL ELEVATIONS ARE SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. RETAINING WALL ELEVATIONS SHOWN ON THIS GRADING PLAN ARE BASED ON SURVEYED SITE TOPOGRAPHY. CONTACT THE ENGINEER IF ACTUAL SITE ELEVATIONS DIFFER FROM THE TOPOGRAPHY SHOWN ON THE GRADING PLAN. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FOUNDATION AND RETAINING WALL ELEVATIONS WITH THE GRADING PLAN, ARCHITECTURAL PLANS, STRUCTURAL PLANS AND LANDSCAPE PLANS. CONTACT THE ENGINEER AND ARCHITECT TO RESOLVE ANY CONFLICTS BETWEEN WALL ELEVATIONS, FOUNDATION ELEVATIONS OR THE SITE TOPOGRAPHY.

DETAIL AND SECTION DESIGNATIONS



UTILITY CONNECTION NOTES:

- I. THE PROPOSED ALIGNMENT FOR UTILITY SERVICE CONNECTIONS HAS NOT BEEN APPROVED BY SERVICE PROVIDERS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY SERVICE PROVIDERS TO DETERMINE UTILITY ROUTES AND REQUIRED SERVICE UPGRADE DETAILS. REVIEW ALL PROPOSED UTILITY ROUTES AND UPGRADE DETAILS WITH THE ENGINEER PRIOR TO CONSTRUCTION.
- 2. UTILITY SERVICES TO THE PROJECT SITE ARE PROVIDED BY:
 - WATER: MARIN MUNICIPAL WATER DISTRICT
 - SEWER: SAN RAFAEL SANITATION DISTRICT
 - ELECTRIC POWER: PACIFIC GAS AND ELECTRIC (PG&E)
 - GAS: PACIFIC GAS AND ELECTRIC (PG&E)
 - TELEPHONE: AT&T
 - CABLE: COMCAST

DRAINAGE CONSTRUCTION REVIEW

THE CONTRACTOR SHALL CONTACT THE ENGINEER AND REQUEST REVIEW OF ALL SUBSURFACE DRAINAGE PIPING AND STORMWATER DRAINAGE PIPING AT LEAST 2 DAYS BEFORE PLACING BACKFILL MATERIAL.

ESTIMATED EARTHWORK QUANTITIES

EXCAVATION	400 CY
FILL	270 CY
EXCESS	130 CY
MAX. EXCAVATION DEPTH	IO FT
MAX. FILL DEPTH	4 FT
DISTURBED AREA	.026 AC

EARTHWORK NOTES:

- I. QUANTITIES ARE "IN-PLACE" ESTIMATES AND DO NOT INCLUDE AN ALLOWANCE FOR SHRINK OR SWELL. ESTIMATES ARE FOR PERMITTING PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING QUANTITIES FOR CONSTRUCTION PURPOSES.
- 2. LEGALLY DISPOSE OF EXCESS MATERIAL OFF-SITE.
- 3. SITE GRADING IS NOT PERMITTED BETWEEN OCTOBER IS AND APRIL IS UNLESS PERMITTED IN WRITING BY THE BUILDING OFFICIAL/ DIRECTOR OF PUBLIC WORKS.

GREEN BUILDING STANDARDS

- THE GRADING AND DRAINAGE PLAN SHOWN ON THE DRAWINGS COMPLIES WITH CALIFORNIA GREEN BUILDING CODE STANDARDS SECTION 4.106.3 REQUIRING MANAGEMENT OF SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING STORMWATER DRAINAGE DURING CONSTRUCTION TO PREVENT FLOODING OF ADJACENT PROPERTY, PREVENT EROSION AND RETAIN RUNOFF ON THE SITE AS REQUIRED BY CALIFORNIA GREEN BUILDING CODE STANDARDS SECTION 4.106.2.

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ABBREVIATIONS

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AGGREGATE BASE
AC
          ASPHALT CONCRETE
          AREA DRAIN
ADA
          AMERICANS WITH DISABILITIES ACT
APN
          ASSESSOR'S PARCEL NUMBER
APPROX
         APPROXIMATE
         AM. SOCIETY OF TESTING MATERIALS
          BENCH MARK
BPD
         BACKWATER PREVENTION DEVICE
CMP
         CORRUGATED METAL PIPE
CO
         CLEANOUT
COM
         COMMUNICATION
         COMMUNICATION OVERHEAD
          COMMUNICATION UNDERGROUND
CONC
          CONCRETE
CY
         CUBIC YARDS
DI
          DRAINAGE INLET
DIA
         DIAMETER
          ELECTRICAL
         ELECTRICAL OVERHEAD
E/UG
         ELECTRICAL UNDERGROUND
EG
         EXISTING GROUND
EL or ELEV ELEVATION
ΕX
         EXISTING
FD
         FLOOR DRAIN
         FINISHED FLOOR ELEVATION
         FLOW LINE
         FINISHED GRADE ELEVATION
FT
         FEET or FOOT
         NATURAL GAS
GALV
         GALVANIZED
          GAS METER
         GALLONS PER MINUTE
         HEIGHT OF EXPOSED WALL FACE
HB
         HOSE BIB
HDPE
         HIGH DENSITY POLYETHYLENE PIPE
          HIGH POINT
INV
         INVERT ELEVATION
         JOINT UTILITY POLE
          JOINT UTILITY TRENCH
LLFF
         LOWER LEVEL FINISHED FLOOR ELEV
LPFF
         LOW POINT FINISHED FLOOR ELEV
MAX
         MAXIMUM
MH
         MANHOLE
MIN
         MINIMUM
MLFF
         MAIN LEVEL FINISHED FLOOR ELEV
MMMD
         MARIN MUNICIPAL WATER DISTRICT
OH
         OVERHEAD
PG&E
         PACIFIC GAS AND ELECTRIC
PVC
         POLYVINYL CHLORIDE PIPE
         RADIUS
RIM
         ELEV AT MH COVER OR DI GRATE
         ROOF LEADER
ROW
         RIGHT-OF-WAY
         SLOPE
SCH
         SCHEDULE
SIM
         SIMILAR
SDMH
         STORM DRAIN MANHOLE
SS
          SANITARY SEWER
         SANITARY SEWER MANHOLE
         STANDARD DIMENSION RATIO
SDR
TC
         TOP OF CURB ELEVATION
TM
         TOP OF WALL ELEVATION
TYP
         TYPICAL
UCS
         UNIFORM CONSTRUCTION STANDARDS, MARIN COUNTY
ULFF
         UPPER LEVEL FINISHED FLOOR ELEV
VΒ
         VALVE BOX
         WATER
         WATER METER
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STORMWATER PLAN SUMMARY

EXISTING SITE PROPOSED SITE DEVELOPMENT PLA	
	1
IMPERVIOUS SURFACES 309 SF 6,604 SF	
CONCRETE PAVERS (PERVIOUS) 11,085 SF 2,079 SF	
LANDSCAPE (PERVIOUS) 11,394 SF 2,711 SF	
TOTAL LOT AREA II,394 SF II,394 SF	

STORMWATER NOTES:

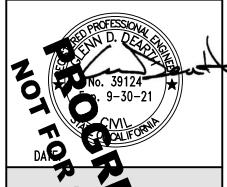
WATER VALVE

- I. IMPERVIOUS SURFACES INCLUDE ROOF AND WALKWAYS. FOR DRAINAGE PURPOSES, IMPERVIOUS AREA INCLUDES ROOF EAVE OVERHANG AREA.
- 2. CONCRETE PAVERS INCLUDE PATIOS AND PARKING.
- 3. NEW OR REPLACEMENT IMPERVIOUS AREA IS 6,360 SF.

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REVISIONS NO. DATE DESCRIPTION A 7/28/21 ISSUED FOR REVIEW

↑ | II/8/2| REVISED PER CIT COMMENTS 9/9/21

G. DEARTH DESIGNED BY: DRAWN BY: E. HAYDEN APPROVED BY: SCALE:

PROJECT NO. 662.001 7/28/2021

> COVER SHEET

REVISION

SHEET NO. 1 of 6

DRAWING

C-1

DESIGN REVIEW NOTES

STORMWATER DRAINAGE PLAN

I. THE CONCEPTUAL STORMWATER DRAINAGE PLAN IS DESIGNED TO COMPLY WITH THE CITY REQUIREMENTS FOR ON-SITE STORMWATER MANAGEMENT AND CONTROL OF STORMWATER RUNOFF TO MINIMIZE OFF-SITE IMPACTS AND IMPROVE STORMWATER QUALITY.

- 2. THE EXISING IMPERVIOUS AREA ON THE SITE TOTALS 309 SQ FT..
- 3. THE PROPOSED DEVELOPMENT PLAN INCLUDES 6,404 SQ FT OF IMPERVIOUS AREA. THE TOTAL LOT AREA IS 11,394 SQ FT. THE PROPOSED TOTAL IMPERVIOUS AREA AMOUNTS TO 56 PERCENT OF THE LOT AREA.
- 4. THE PROPOSED DEVELOPMENT PLAN MINIMIZES THE USE OF IMPERVIOUS HARDSCAPE. CONCRETE PAVERS WILL BE USED FOR PARKING AREAS AND PATIOS.
- 5. RUNOFF FROM 5,562 SQ FT OF THE PROPOSED NEW IMPERVIOUS AREA WILL BE COLLECTED IN A PIPED DRAINAGE SYSTEM AND DIRECTED TO FOUR BIO-RETENTION BASINS. THE IMPERVIOUS AREA DIRECTED TO THE BIO-RETENTION BASINS INCLUDES THE ENTIRE ROOF AREA OF THE THREE APARTMENT BUILDINGS, WALKWAYS AND PATIOS. RUNOFF FROM REMAINING IMPERVIOUS AREA WILL SHEET FLOW TO LANDSCAPE AREAS OR TO THE STREET.
- 6. AREA DRAINS IN LANDSCAPE AND HARDSCAPE AREAS ARE LIMITED TO LOCATIONS WHERE THEY ARE NECESSARY TO PREVENT WATER PONDING THAT COULD DAMAGE THE BUILDINGS.
- 7. THE BIO RETENTION BASINS ARE DESIGNED TO CAPTURE THE IO-YEAR STORM AND INFILTRATE IT INTO THE GROUND IN ACCORDANCE WITH MCSTOPPP GUIDELINES. THE SURFACE AREA OF THE BASINS AND DETAILS OF CONSTRUCTION COMPLY WITH MCSTOPPP GUIDELINES.
- 8. A FOUNDATION DRAINAGE AND RETAINING WALL BACK DRAINAGE SYSTEM WILL BE CONSTRUCTED USING PERFORATED PVC PIPE. THE SYSTEM WILL OUTLET TO THE GROUND SURFACE AT A SUITABLE LOCATION. PERMANENT EROSION CONTROL WILL BE INSTALLED AT THE OUTLET LOCATION.

EXCAVATION & GRADING PLAN

I. SITE GRADING WILL BE COMPLETED IN CONFORMANCE WITH THE PROJECT GEOTECHNICAL REPORT AND THE APPROVED SITE GRADING PLAN.

2. EXCESS EXCAVATED MATERIAL WILL BE LEGALLY DISPOSED OF AT AN OFF-SITE LOCATION TO BE DETERMINED BY THE CONSTRUCTION CONTRACTOR.

EROSION CONTROL

I. EROSION CONTROL MEASURES WILL BE INCORPORATED INTO THE PROJECT DURING CONSTRUCTION AND IMPLEMENTED BY THE CONSTRUCTION CONTRACTOR. STRAW WATTLES WILL BE PLACED AROUND THE DOWN-SLOPE PERIMETER OF THE DISTURBED AREA. EXCAVATED AREAS AND SOIL STOCKPILES WILL BE COVERED WITH PLASTIC TARPS TO MINIMIZE EROSION. AREAS DISTURBED DURING CONSTRUCTION WILL BE RESTORED BY SEEDING AND INSTALLATION OF EROSION CONTROL BLANKET AND STRAW WATTLES.

2. PERMANENT EROSION CONTROL WILL BE PROVIDED BY LANDSCAPING THE ENTIRE DISTURBED AREA AT THE COMPLEITON OF THE WORK IN ACCORDANCE WITH THE LANDSCAPING PLANS.

STORMWATER POLLUTION PREVENTION

I. SPECIFICATIONS WILL BE INCLUDED ON THE PROJECT DRAWINGS OUTLINING CONSTRUCTION PRACTICES THAT MUST BE FOLLOWED TO PREVENT STORMWATER POLLUTION. CONSTRUCTION WORKERS WILL BE ADVISED OF REQUIRED CONSTRUCTION MEASURES FOR AVOIDING STORMWATER POLLUTION. THESE MEASURES WILL INCLUDE PROCEDURES FOR MATERIAL STORAGE, USE AND DISPOSAL OF HAZARDOUS MATERIALS (PAINT, SOLVENTS, ADHESIVES, ETC.), WASTE DISPOSAL PROCEDURES, CONCRETE WASHOUT REQUIREMENTS AND OTHER CONSTRUCTION PRACTICES.

UTILITY PLAN

I. WATER: WATER SERVICE WILL BE PROVIDED BY A NEW SERVICE CONNECTION TO THE EXISTING WATER MAIN IN BROOKDALE AVENUE AND AN APPROPRIATELY SIZED METER AS SHOWN ON DRAWING C-2. ALL WATER SYSTEM IMPROVEMENTS WILL BE COMPLETED IN CONFORMANCE WITH MARIN MUNICIPAL WATER DISTRICT STANDARDS.

2. ELECTRIC POWER: ELECTRIC SERVICE WILL BE LOCATED UNDERGROUND FROM THE NEAREST JOINT POLE AS SHOWN ON DRAWING C-2. ALL ELECTRIC POWER SYSTEM IMPROVEMENTS WILL BE COORDINATED WITH PACIFIC GAS AND ELECTRIC (PG & E) AND COMPLETED IN CONFORMANCE WITH PG & E STANDARDS.

3. COMMUNICATION: PHONE AND CABLE TV SERVICE WILL BE LOCATED UNDERGROUND FROM THE NEAREST JOINT POLE AS SHOWN ON DRAWING C-2. ALL COMMUNICATION SYSTEM IMPROVEMENTS WILL BE COORDINATED WITH AT&T AND COMCAST. THE WORK WILL BE COMPLETED IN CONFORMANCE WITH THEIR STANDARDS.

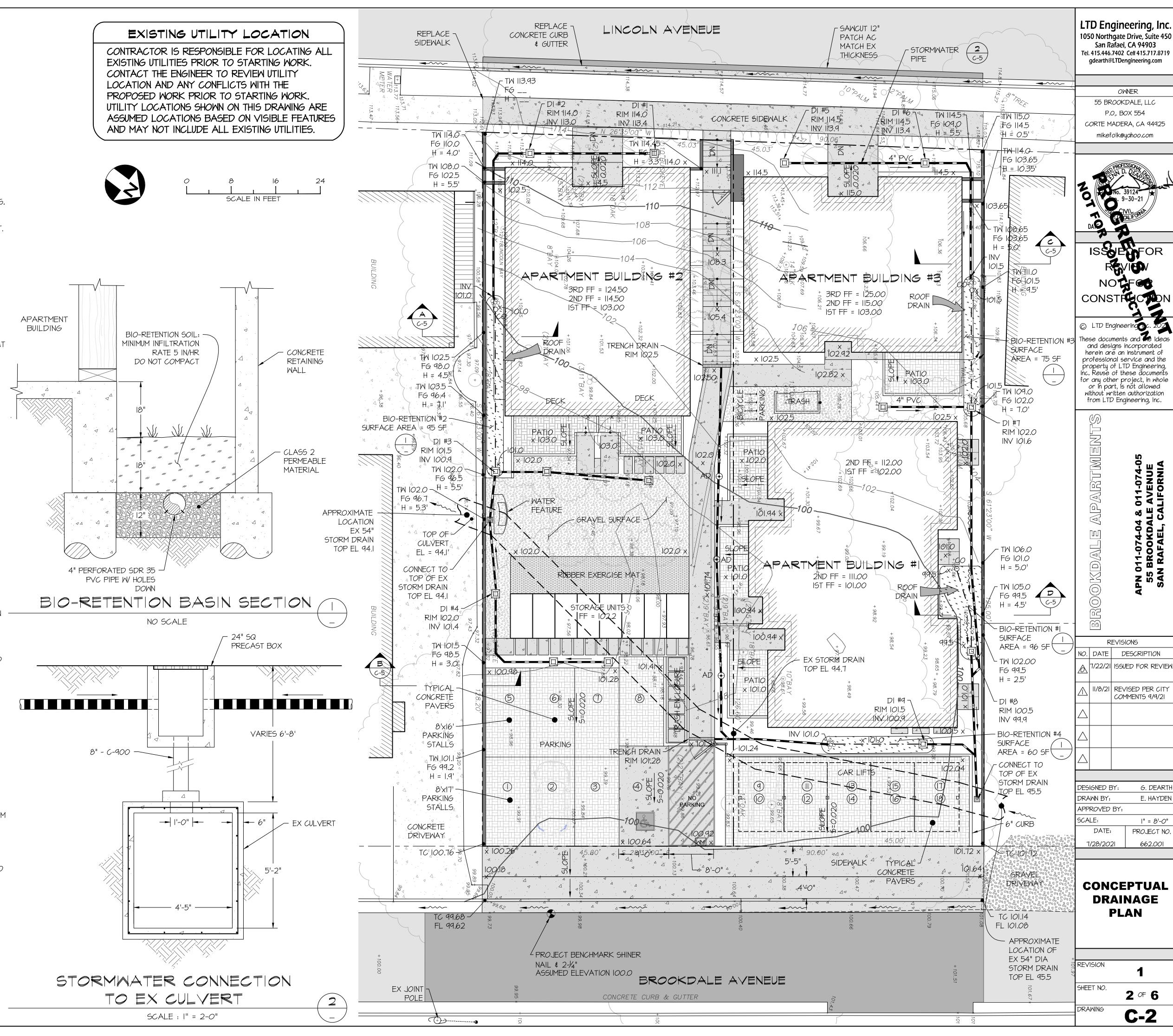
4. NATURAL GAS: GAS SERVICE WILL BE PROVIDED WITH A NEW SERVICE LINE AND METER AS SHOWN ON DRAWING C-2INED. ALL GAS SYSTEM IMPROVEMENTS WILL BE COORDINATED WITH PACIFIC GAS AND ELECTRIC (PG&E) AND COMPLETED IN CONFORMANCE WITH PG&E STANDARDS.

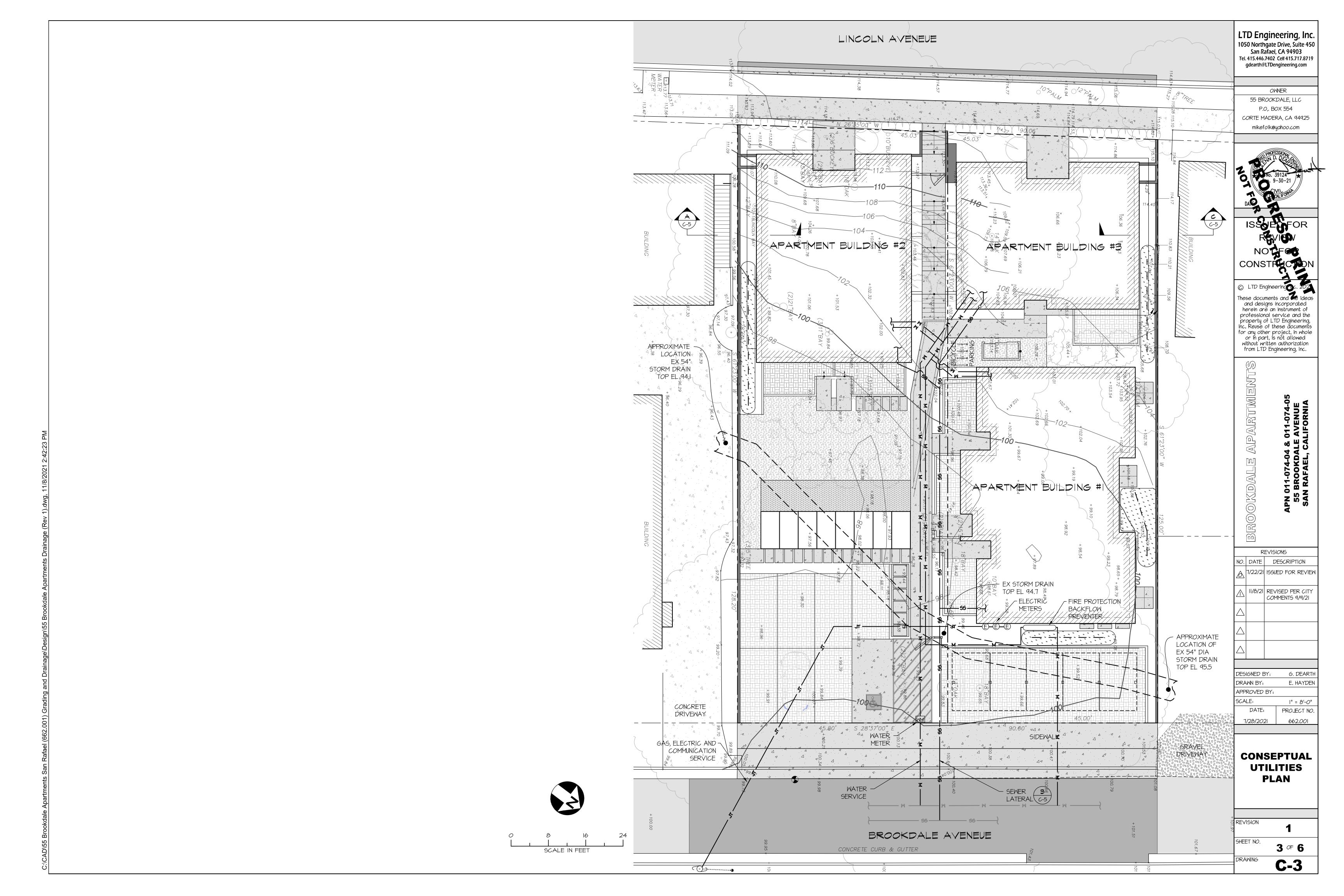
5. NATURAL GAS: ALL GAS SYSTEM IMPROVEMENTS WILL BE COORDINATED WITH PACIFIC GAS AND ELECTRIC (PG&E) AND COMPLETED IN CONFORMANCE WITH PG&E STANDARDS.

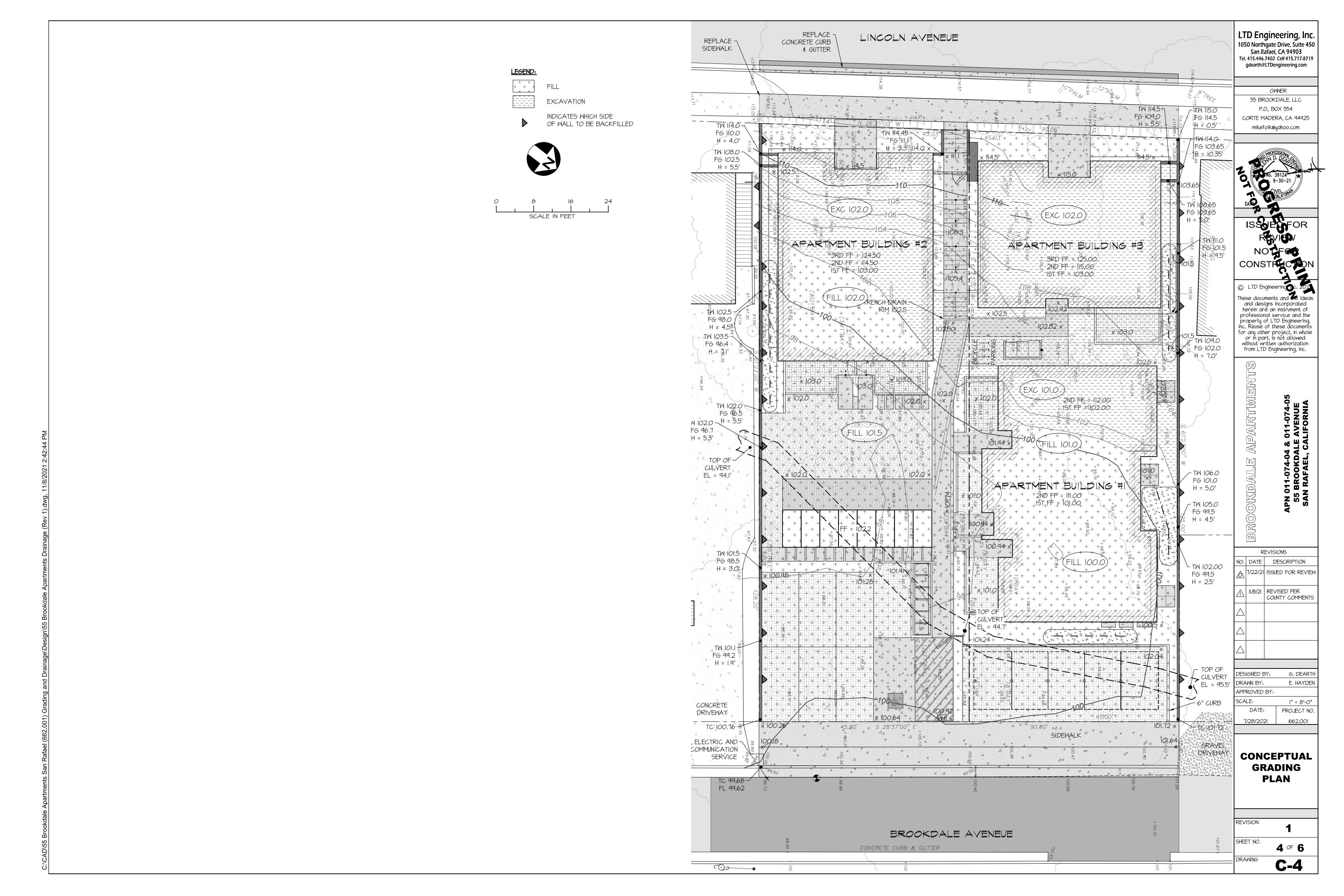
6. SANITARY SEWER: A NEW SEWER LATERAL AND BACK FLOW PREVENTION DEVICES AT EACH BUILDING WILL BE CONSTRUCTED AS SHOWN ON DRAWING C-2. THE LATERAL WILL CONROM TO SAN RAFAEL SANITATION DISTRICT STANDARDS.

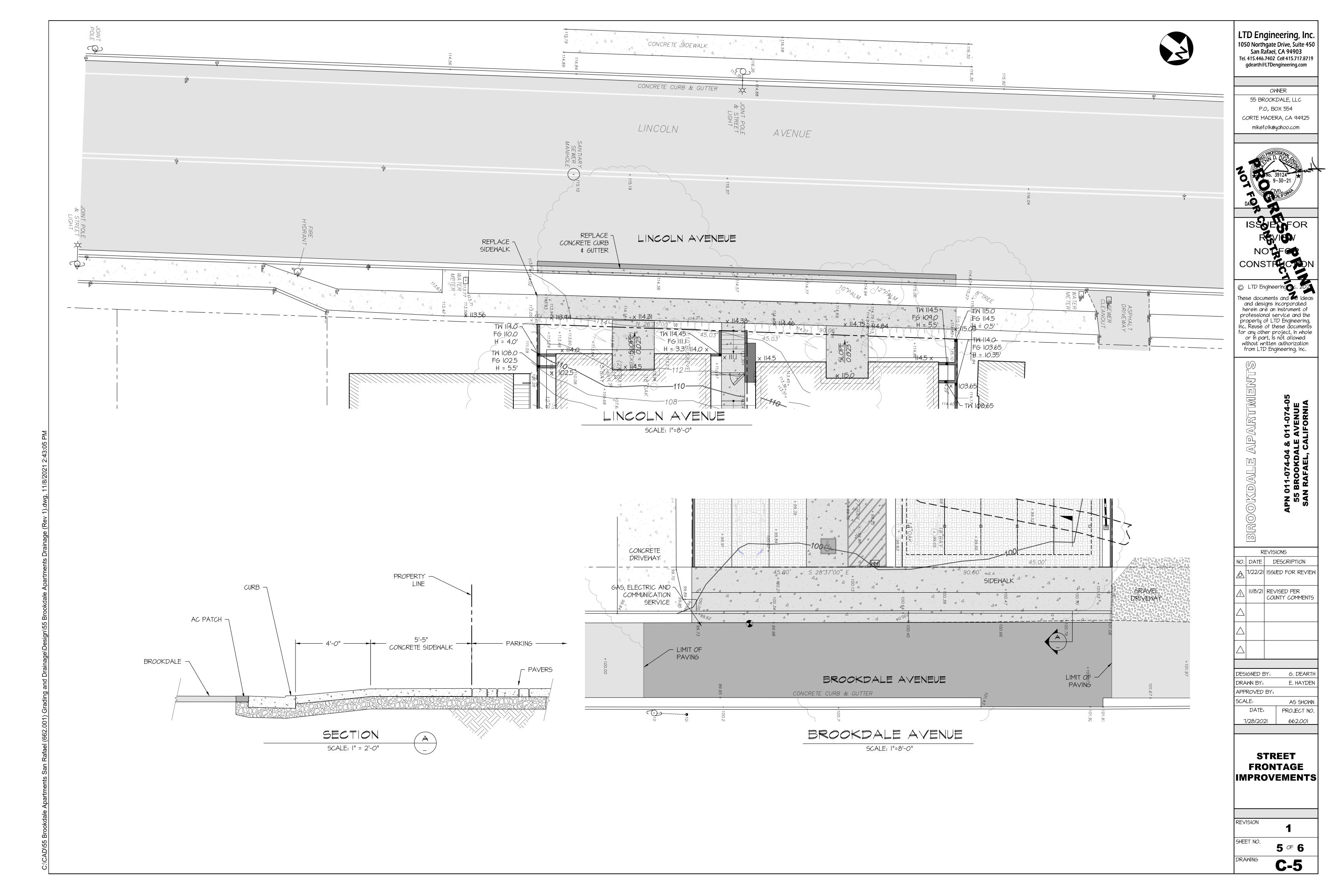
RETAINING WALL CONSTRUCTION NOTES

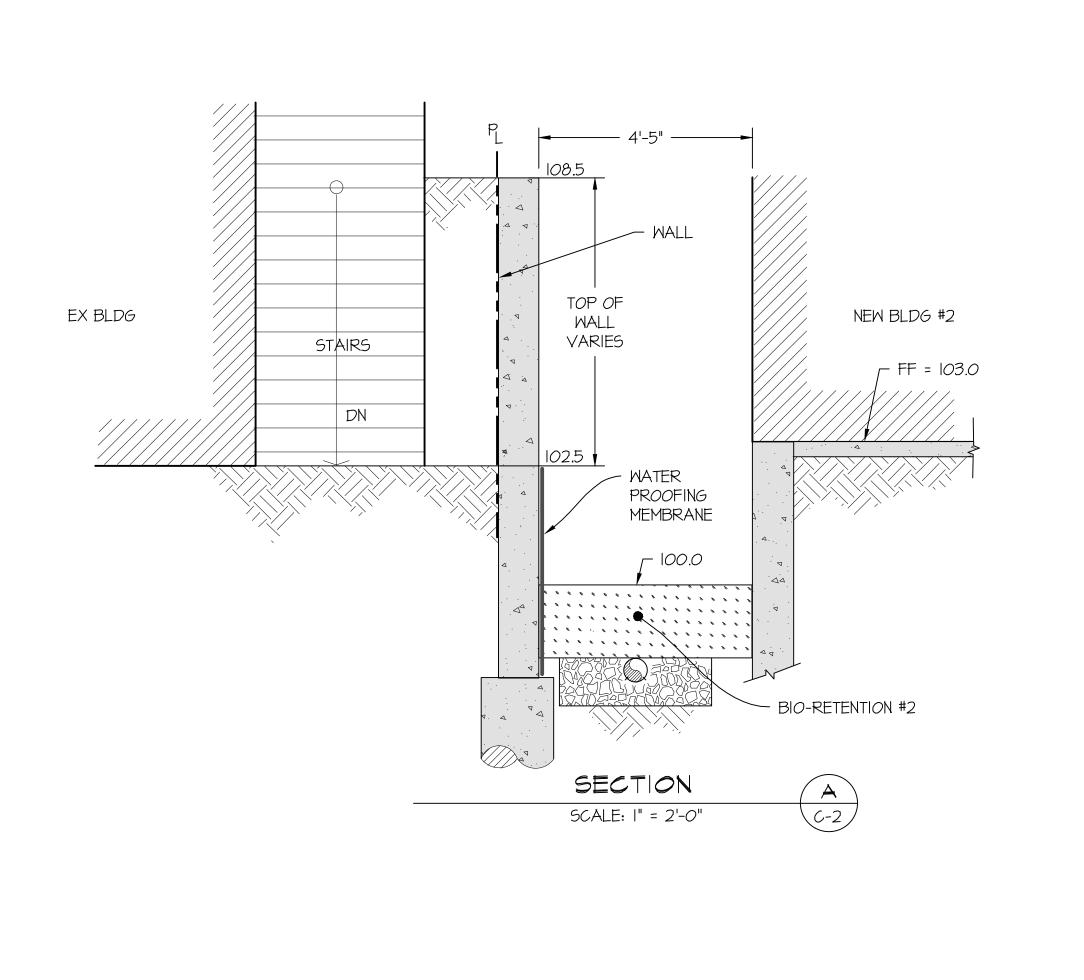
I. ALL RETAINING WALLS WILL BE REINFORCED CONCRETE CONSTRUCTION SUPPORTED BY SPREAD FOOTINGS OR DRILLED PIERS AS DETERMINED BY THE PROJECT GEOTECHNICAL ENGINEER AND STRUCTURAL ENGINEER.

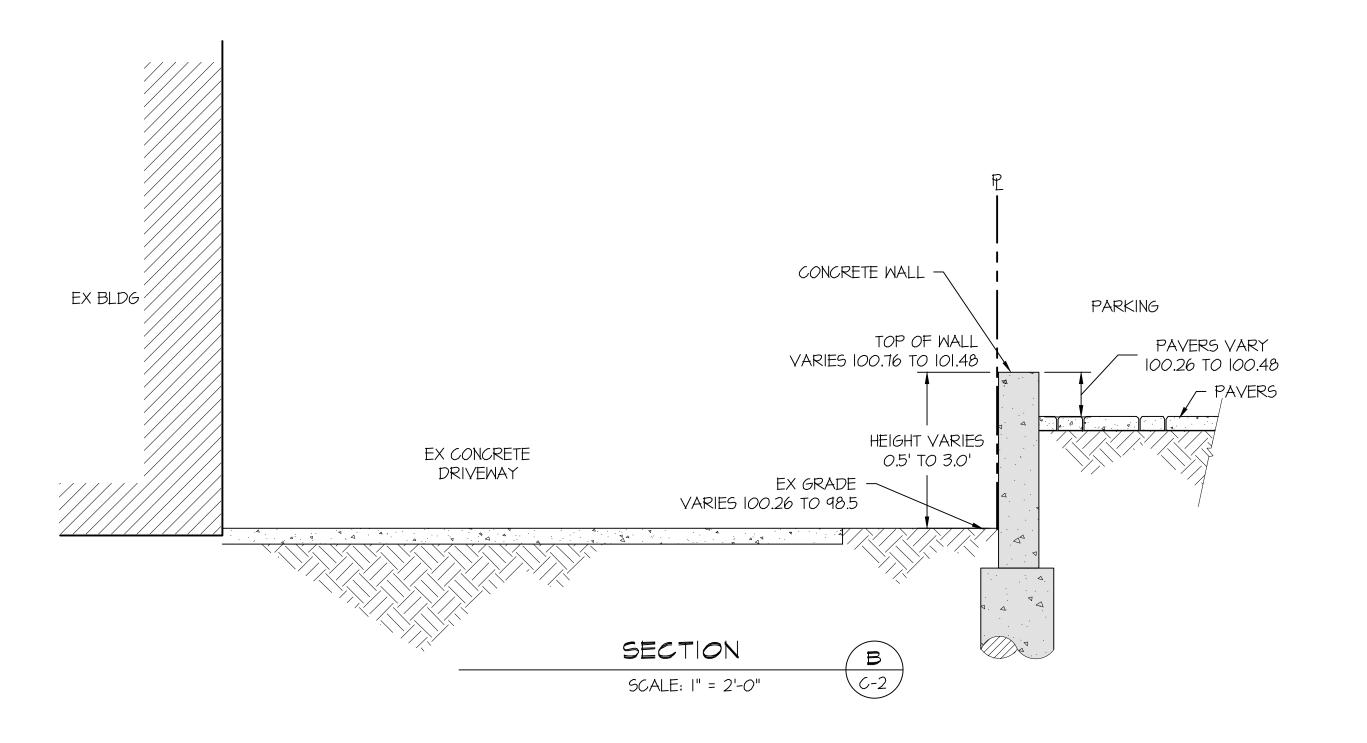


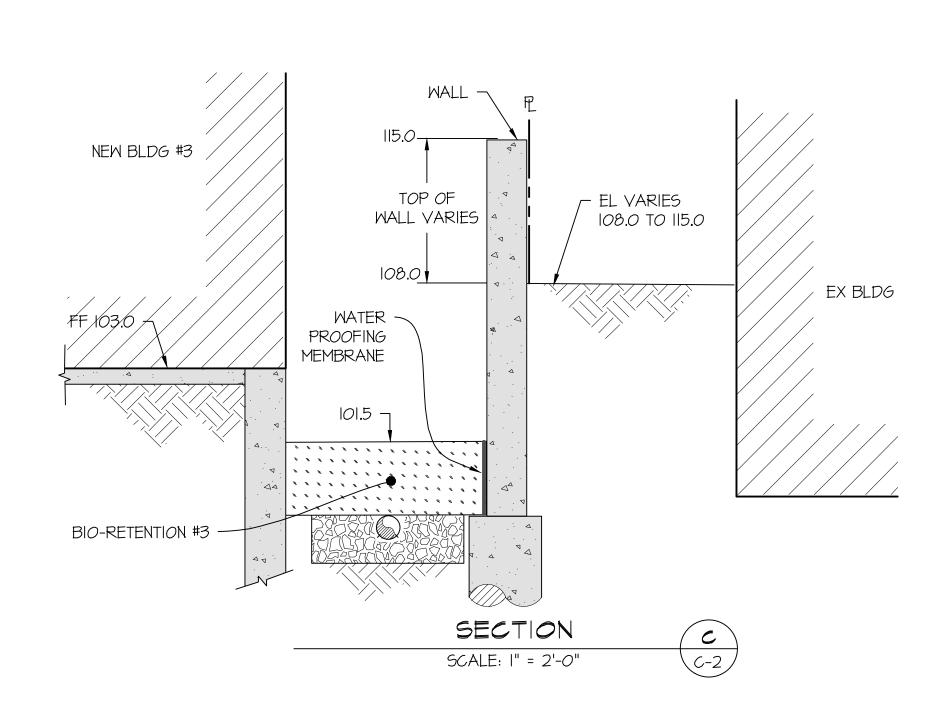


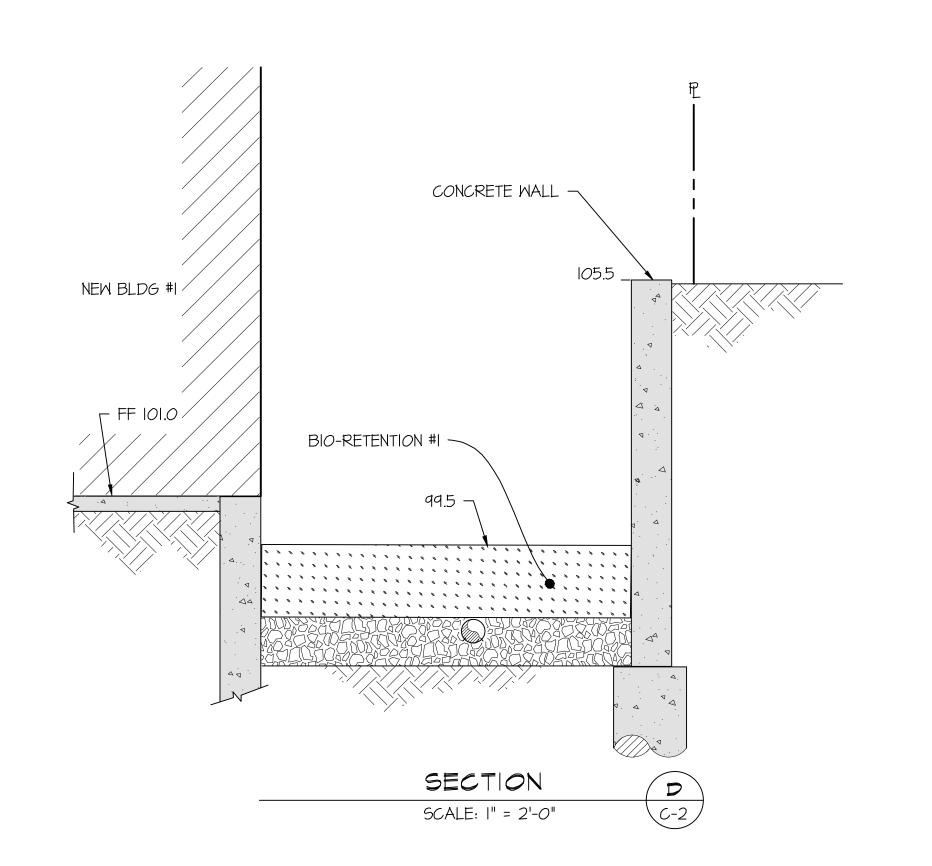












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REVISIONS			
NO.	DATE	DESCRIPTION	
	7/22/21	ISSUED FOR REVIEW	
\triangle	11/8/21	REVISED PER COUNTY COMMENTS	

DESIGNED BY:	G. DEARTH
DRAWN BY:	E. HAYDEN
APPROVED BY:	
SCALE:	AS SHOWN
DATE:	PROJECT NO.

7/28/2021 662.001

DETAILS

REVISION

SHEET NO. 6 of 6 DRAWING

C-6