

BUCKINGHAM PLACE SECOND FILING

100 BLOCK OF THIRD STREET

FORT COLLINS, COLORADO



LAND USE DATA

LAND AREA	SQ. FT.	ACRES	% OF NET
SITE AREA GROSS	12,529	0.29	100 %
SITE AREA NET	12,529	0.29	100 %
PUBLIC STREET RIGHT-OF-WAY	0	0	0.0 %

DENSITY _____ 2 UNITS ON 0.29 ACRES = 6.8 UNITS PER ACRE
 BUILDING HEIGHT _____ VARIES, 2 STORIES MAXIMUM
 EXISTING ZONING _____ RL - RESIDENTIAL LOW DENSITY

GENERAL NOTES

1. THE PURPOSE OF THIS DEVELOPMENT APPLICATION IS TO SUBDIVIDE AND EXISTING VACANT UNPLATTED LOT INTO TOW SINGLE-FAMILY DETACHED RESIDENTIAL LOTS.
2. AS ALLOWED IN THE LUC, ONLY SINGLE FAMILY DETACHED RESIDENTIAL LOTS ARE BEING CREATED, AND THE HOUSES ARE NOT YET DESIGNED AT THE TIME OF THIS DEVELOPMENT APPROVAL, THEREFORE ARE NOT SHOWN ON THE SITE PLAN AND LANDSCAPE PLAN. ADDITIONALLY NO BUILDING ELEVATIONS ARE YET PROPOSED. THE REVIEW OF THE BUILDING PLACEMENT AND BUILDING ELEVATIONS WILL BE DONE AT THE TIME OF BUILDING PERMIT FOR SINGLE FAMILY DETACHED RESIDENTIAL DEVELOPMENTS.
3. THE DRAWINGS SHOW THE COY DITCH BEING PIPED AND RELOCATED OUT OF THE THIRD STREET RIGHT-OF-WAY. IN THE EVENT THAT THE COY DITCH IS ABANDON PRIOR TO CONSTRUCTION OF THIS PROJECT, THE PIPING OF THE COY DITCH MAY NOT BE NECESSARY.
4. REFER TO UTILITIES PLAN FOR LOCATION OF UTILITIES AND DRAINAGE.
5. BUILDINGS WILL CONFORM TO THE MINIMUM FORT COLLINS, COLORADO ENERGY CODE REQUIREMENTS.
6. ON-SITE SNOW REMOVAL, MAINTENANCE OF LANDSCAPING, AND ON-SITE STORMWATER SYSTEM TO BE MAINTAINED BY THE PROPERTY OWNER.
7. SIDEWALKS AND RAMPS WILL CONFORM TO ADA STANDARDS.
8. ANY ROOFTOP AND GROUND MOUNTED MECHANICAL EQUIPMENT IS TO BE FULLY SCREENED FROM PUBLIC VIEW WITH THE ROOFTOP PARAPET WALLS AND/OR LANDSCAPING.
9. PLEASE REFER TO THE CIVIL PLANS FOR THE EXISTING AND PROPOSED TOPOGRAPHY.
10. ADDRESS NUMERALS FOR EACH BUILDING SHALL BE VISIBLE FROM THE PUBLIC STREET WITH A MINIMUM OF 6-INCH NUMERALS ON A CONTRASTING BACKGROUND.
11. ELECTRICAL TRANSFORMERS, ELECTRICAL & GAS METERS, AND OTHER APPURTENANCES SHALL BE SCREENED FROM PUBLIC VIEW TO THE EXTENT FEASIBLE.

SHEET INDEX

DESCRIPTION	SHEET NUMBER
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ULTIMATE SITE PLAN	2 OF 5
INTERIM SITE PLAN	3 OF 5
ULTIMATE LANDSCAPE PLAN	4 OF 5
INTERIM LANDSCAPE PLAN	5 OF 5

OWNER'S CERTIFICATION

THE UNDERSIGNED DOES/ DO HEREBY CERTIFY THAT I/ WE ARE THE LAWFUL OWNERS OF REAL PROPERTY DESCRIBED ON THIS SITE PLAN AND DO HEREBY CERTIFY THAT I/ WE ACCEPT THE CONDITIONS AND RESTRICTIONS SET FORTH ON SAID SITE PLAN.

CHARLES MESERLIAN _____ DATE _____

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 20__

BY: _____

MY COMMISSION EXPIRES _____ NOTARY PUBLIC _____

ADDRESS _____

DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES

APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS
 THIS _____ DAY OF _____, 2015.

DIRECTOR _____

LEGAL DESCRIPTION

A tract of land located in the Northeast One-quarter of Section 12, Township 7 North, Range 69 West of the Sixth Principal Meridian, City of Fort Collins, County of Larimer, State of Colorado being more particularly described as follows:

Commencing at the East 1/4 corner of said Section 12, Thence N89°46'17"W 1959.52 feet along the South line of said Northeast One-Quarter to the intersection of the extension of the existing monumented East Right-of-Way line of 3rd Street; Thence N00°19'57"E 221.63 feet along the said East Right-of-way line and extension thereof to the Point of Beginning; Thence N00°19'57"E 125.31 feet continuing along said East Right-of-Way line; Thence N88°50'13"E 98.89 feet to the West line of the Odell Brewing Company First Replat; Thence S00°11'21"W 127.77 feet along said West line to the Southeast corner of that parcel described at Reception No. 20120001338; Thence N89°44'22"W 99.17 feet along the south line of the parcel described at Reception No. 20120001338 to the Point of Beginning.

Site Data

BUCKINGHAM PLACE
 SECOND FILING
 100 BLOCK OF THIRD STREET

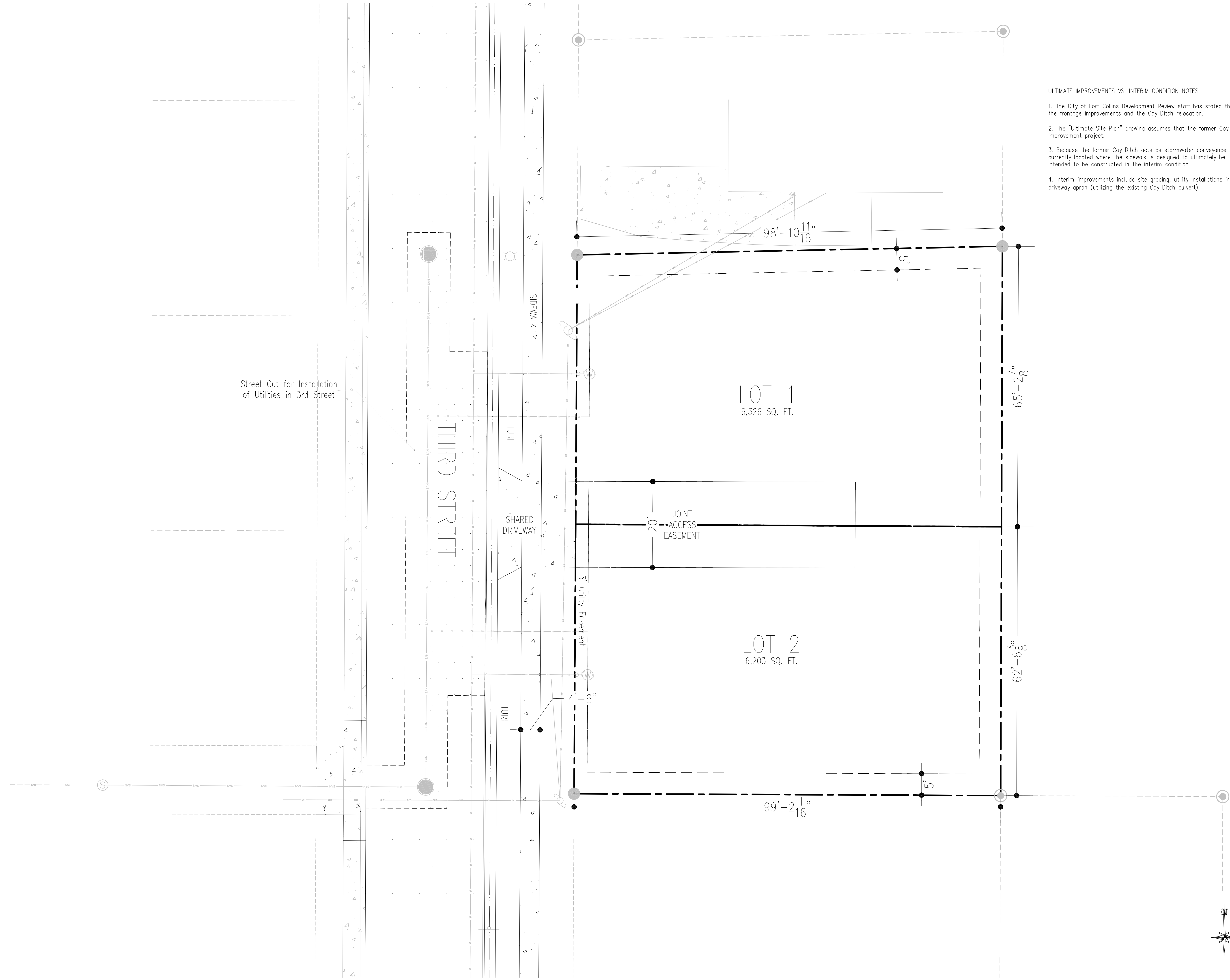


108 Rutgers Avenue
 Fort Collins, CO 80525
 970.416.7431
 Fax: 719.326.8340
 Email: troy@architex.com
 www.Architex.com

REVISION: 1/6/2015

1 of 5

DATE: 1/17/2015



ULTIMATE IMPROVEMENTS VS. INTERIM CONDITION NOTES:

1. The City of Fort Collins Development Review staff has stated that the project will be able to make "payment in lieu" for the frontage improvements and the Coy Ditch relocation.
2. The "Ultimate Site Plan" drawing assumes that the former Coy Ditch will be removed by others as part of a larger street improvement project.
3. Because the former Coy Ditch acts as stormwater conveyance for other properties in the vicinity, and because it is currently located where the sidewalk is designed to ultimately be located within the right-of-way, the street sidewalk is not intended to be constructed in the interim condition.
4. Interim improvements include site grading, utility installations in 3rd Street (including street patching), and a new driveway apron (utilizing the existing Coy Ditch culvert).


Ultimate Site Plan
 SCALE: 1" = 10'

BUCKINGHAM PLACE
SECOND FILING
 100 BLOCK OF THIRD STREET

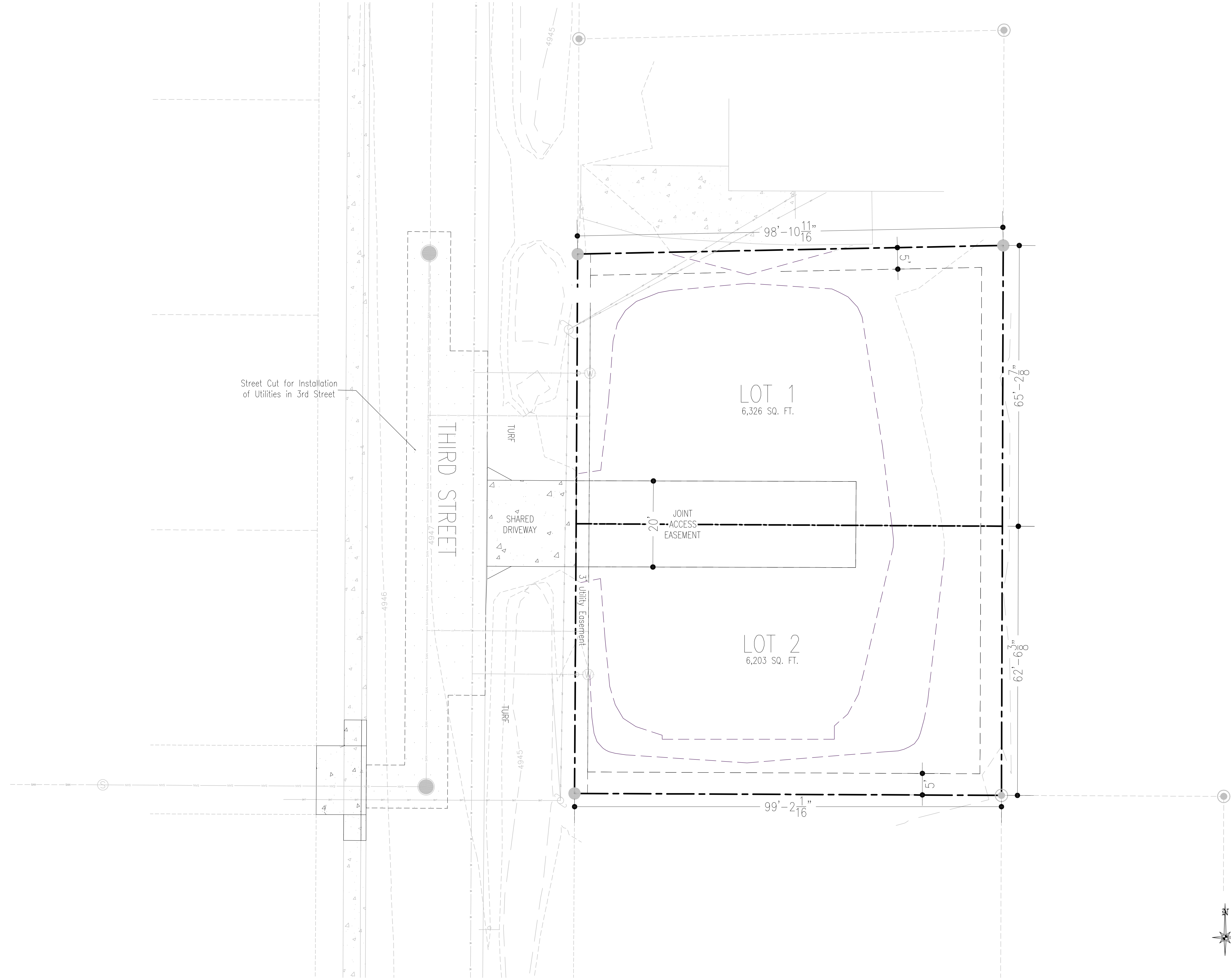


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2 of 5



Street Cut for Installation of Utilities in 3rd Street

THIRD STREET

LOT 1
6,326 SQ. FT.

LOT 2
6,203 SQ. FT.

TURF

TURF

SHARED DRIVEWAY

JOINT ACCESS EASEMENT

3' Utility Easement

Interim Site Plan
SCALE: 1" = 10'

TREE PROTECTION SPECIFICATIONS

- Within the drip line of any protected existing tree, there shall be no cut or fill over a four-inch depth unless a qualified arborist or forester has evaluated and approved the disturbance.
- All protected existing trees shall be pruned to the City of Fort Collins Forestry standards.
- Prior to and during construction, barriers shall be erected around all protected existing trees with such barriers to be of orange fencing a minimum of four (4) feet in height, secured with metal T-posts, no closer than six (6) feet from the trunk or one-half (1/2) of the drip line, whichever is greater. There shall be no storage or movement of equipment, material, debris or fill within the fenced tree protection zone.
- During the construction stage of development, the applicant shall prevent the cleaning of equipment or material or the storage and disposal of waste material such as paints, oils, solvents, asphalt, concrete, motor oil or any other material harmful to the life of a tree within the drip line of any protected tree or group of trees.
- No damaging attachment, wires, signs or permits may be fastened to any protected tree.
- Large property areas containing protected trees and separated from construction or land clearing areas, road rights-of-way and utility easements may be "ribboned off," rather than erecting protective fencing around each tree as required in subsection (6)(3) above. This may be accomplished by placing metal T-post stakes a maximum of fifty (50) feet apart and tying ribbon or rope from stake-to-stake along the outside perimeters of such areas being cleared.
- The installation of utilities, irrigation lines or any underground fixture requiring excavation deeper than six (6) inches shall be accomplished by boring under the root system of protected existing trees at a minimum depth of twenty-four (24) inches. The auger distance is established from the face of the tree (outer bark) and is scaled from tree diameter at breast height as described in the chart below.

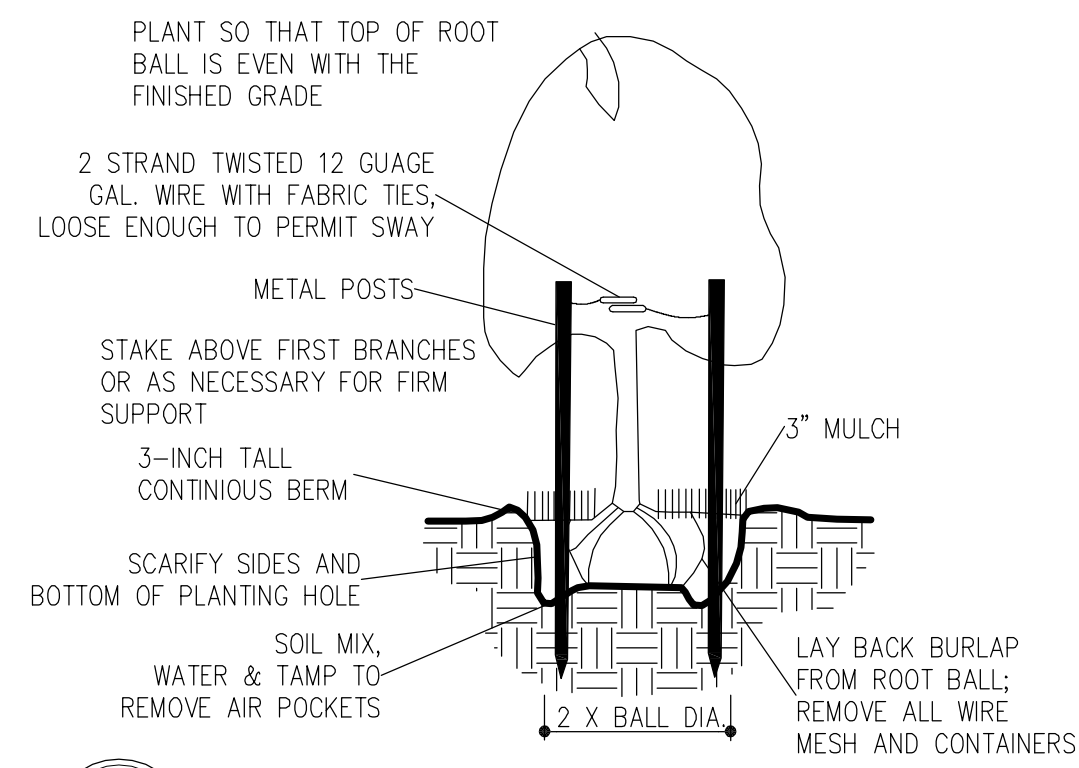
Tree Diameter at Breast Height (inches)	Auger Distance From Face of Tree (feet)
0-2	1
3-4	2
5-9	5
10-14	10
15-19	12
Over 19	15

PLANT SCHEDULE

QTY.	KEY	COMMON NAME	BOTANICAL NAME	PERCENTAGE
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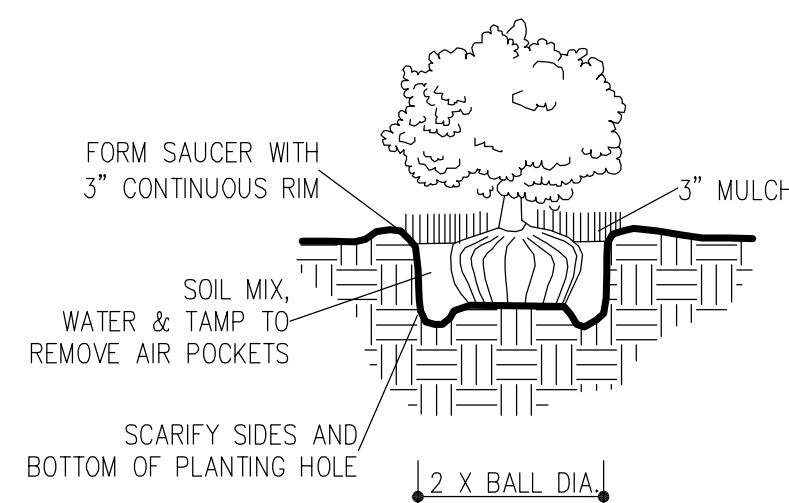
CANOPY TREES

1	CO	HACKBERRY	CELTIS OCCIDENTALIS	2" CAL	33.3%
1	OR	BURR OAK	QUERCUS MACROCARPA	2" CAL	33.3%
1	AB	AUTUMN BLAZE PEAR	PYRUS CALLERYAM 'AUTUMN BLAZE'	2" CAL	33.3%



1 TREE PLANTING - VERTICAL STAKES

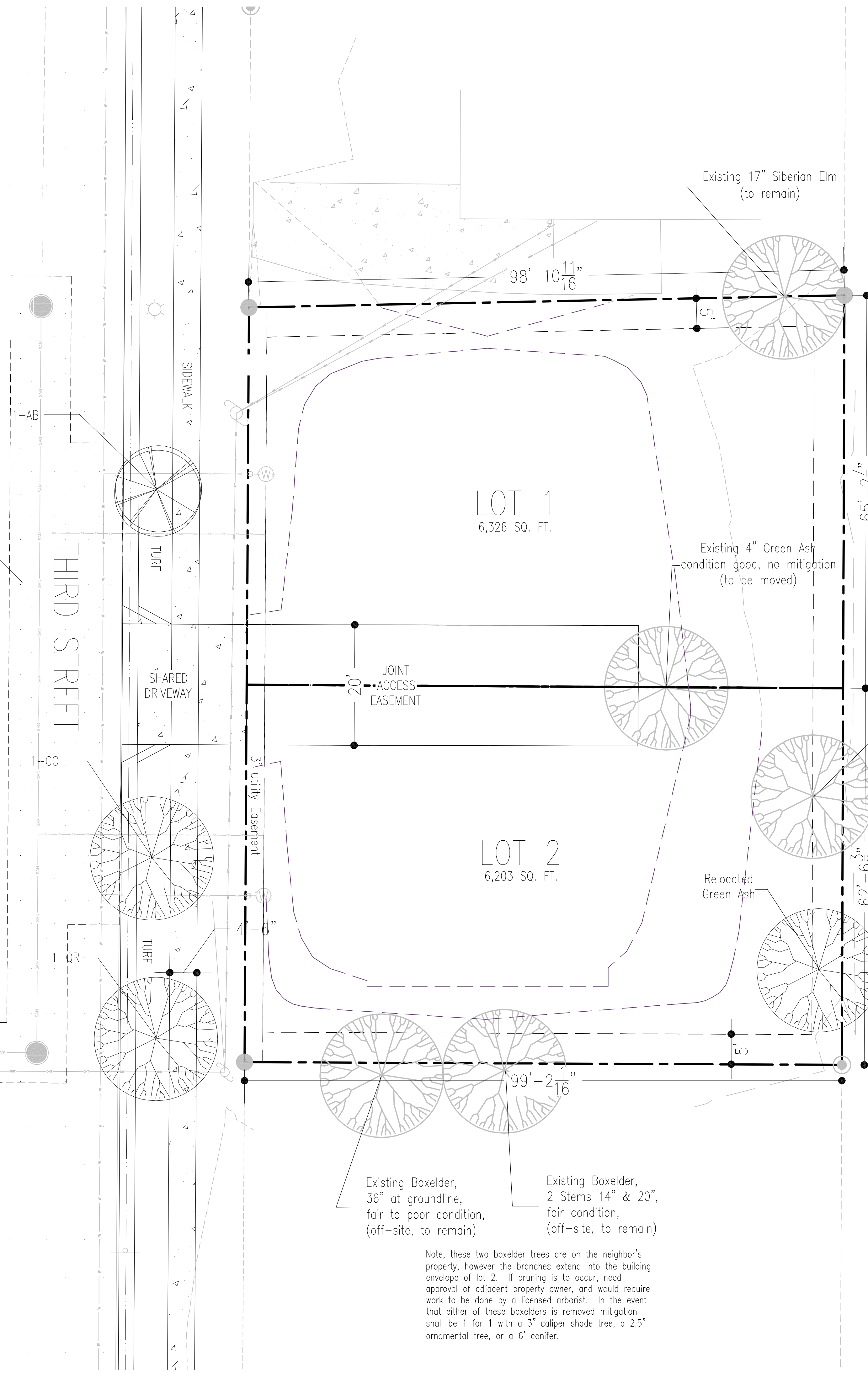
SCALE: N.T.S.



2 SHRUB PLANTING

SCALE: N.T.S.

Street Cut for Installation of Utilities in 3rd Street



LANDSCAPE NOTES

- ALL EXISTING TREES AND SHRUBS TO REMAIN.
- ALL TREES TO MEET CITY OF FORT COLLINS STREET STANDARDS FOR SIZE.
- ANY REQUIRED LANDSCAPE IRRIGATION SYSTEMS SHALL BE REVIEWED AND APPROVED BY THE CITY OF FORT COLLINS PRIOR TO ISSUANCE OF A BUILDING PERMIT.
- ALL NEW TREES TO BE SPADED OR BALLED AND BURLAPPED.
- AREAS INDICATED AS "TURF" TO BE PLANTED WITH A BLEND OF 70% TALL FESCUE, 20% BLUEGRASS AND 10% SMOOTH BROME, AND BE IRRIGATED WITH AN AUTOMATIC SPRINKLER SYSTEM.
- ALL PARKWAYS WILL BE SEEDED OR SODDED WITH A BLEND OF TURF CONSISTENT WITH NOTE #5 ABOVE.
- ALL NEW SHRUB BEDS SHALL BE MULCHED WITH 4 INCH DEPTH WOOD MULCH OVER NON-WOVEN WEED BARRIER SUCH AS TYPAR OR MIRAFI.
- ALL NEW PERENNIAL BEDS TO BE MULCHED WITH 2 INCH DEPTH WOOD MULCH. NO WEED BARRIER SHALL BE PLACED IN PERENNIAL BEDS.
- EDGING BETWEEN TURF AND SHRUB BEDS SHALL BE 14 GA x 4" STEEL SET LEVEL WITH TOP OF SOD.
- MINOR CHANGES IN PLANT SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION AS REQUIRED BY SITE CONDITIONS. OVERALL QUANTITY AND QUALITY TO BE CONSISTENT WITH APPROVED PLANS.
- ALL LANDSCAPING ON SITE AND IN STREET RIGHT-OF-WAY, SHALL BE MAINTAINED BY THE PROPERTY OWNER, OR AN OWNERS ASSOCIATION IF ONE EXISTS.
- THE FOLLOWING SEPARATIONS SHALL BE PROVIDED BETWEEN TREES/SHRUBS AND UTILITY FACILITIES:
 - 40 FEET BETWEEN CANOPY TREES AND STREET LIGHTS
 - 15 FEET BETWEEN ORNAMENTAL TREES AND STREET LIGHTS
 - 4 FEET BETWEEN TREES AND ELECTRICAL VAULTS
 - 10 FEET BETWEEN TREES & WATER OR SEWER MAINS
 - 6 FEET BETWEEN TREES & WATER OR SEWER SERVICES
 - 4 FEET BETWEEN SHRUBS AND WATER OR SEWER LINES
 - 4 FEET BETWEEN TREES AND GAS LINES
 - 8 FEET BETWEEN TREES AND THE EDGES OF DRIVEWAYS OR ALLEYS
 TREE UTILITY SEPARATIONS SHALL NOT BE USED AS A MEANS TO ELIMINATING REQUIRED STREET TREES.
- LOCATE ALL UTILITIES AND FACILITIES PRIOR TO ANY DIGGING OR LANDSCAPE PLANTING.
- A FREE PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ALL AREAS BETWEEN THE SIDEWALK AND CURB AND STREET MEDIANS. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT MAY RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.
- THE DEVELOPER SHALL CONTACT THE CITY FORESTER TO INSPECT ALL STREET TREE PLANTING AT COMPLETION. ALL TREES NEED TO HAVE BEEN INSTALLED AS SHOWN ON THE LANDSCAPE PLAN. APPROVAL OF STREET TREE PLANTING IS REQUIRED BEFORE FINAL APPROVAL. FAILURE TO OBTAIN APPROVAL BY THE CITY FORESTER FOR STREET TREE PLANTING SHALL RESULT IN A HOLD ON CERTIFICATE OF OCCUPANCY.
- IN THE EVENT THAT PLANTS SHOWN ON THE MASTER PLANT LIST ARE NOT AVAILABLE OR UNSUITABLE FOR PROPOSED LOCATION, A PLANT SIMILAR IN GROWTH HABIT AND SIZE MAY BE SUBSTITUTED. ANY SUBSTITUTION OF AN APPROVED STREET TREE SPECIES MUST BE APPROVED BY THE CITY FORESTER.
- THE SOIL IN ALL NEW LANDSCAPE AREAS SHALL BE THOROUGHLY LOOSENEED TO A DEPTH OF NOT LESS THAN EIGHT (8) INCHES AND SOIL AMENDMENT SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL OF ALL LANDSCAPE AREAS TO A DEPTH OF AT LEAST SIX (6) INCHES BY TILLING, DISCING OR OTHER SUITABLE METHOD, AT A RATE OF AT LEAST THREE (3) CUBIC YARDS OF SOIL AMENDMENT PER ONE THOUSAND (1,000) SQUARE FEET OF LANDSCAPE AREA.
- ALL DISTURBED AREAS WILL BE PLANTED WITH "DISTURBED AREAS SEED MIX", THE MIXTURE FOR WHICH IS LISTED AT THE LOWER CENTRAL PART OF THIS PAGE.

LANDSCAPE ASSURANCES

ALL LANDSCAPING PROPOSED MUST BE INSTALLED OR MUST BE SECURED WITH AN IRREVOCABLE LETTER OF CREDIT, PERFORMANCE BOND, OR ESCROW ACCOUNT FOR 125% OF THE VALUATION OF THE LANDSCAPE MATERIALS AND INSTALLATION PRIOR TO ISSUANCE OF ANY CERTIFICATES OF OCCUPANCY.

HYDROZONES

AREA	HYDROZONE TYPE	AREA(S.F.)	WATER NEED (GAL./S.F.)	ANNUAL WATER USE (GALLONS)
PARKWAY	HIGH	575	10	5,750
IMPERVIOUS AREAS	NONE	3,000	0	0
YARD	HIGH	9,000	10	90,000
TOTAL		12,575	AVG: 7.6	95,750

DISTURBED AREAS SEED MIX

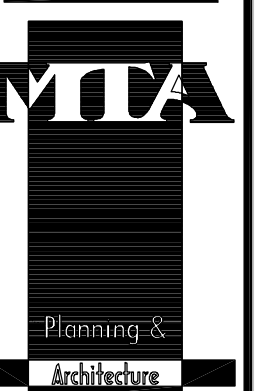
Drill between 1/4" - 1/2" deep.

Common Name	Scientific Name	Drilled lbs/PLS/acre	Season	Mature Height (in.)	Form
Sideoats Grama	<i>Bouteloua curtipendula</i>	2.8	Warm	10-30"	Bunch
Buffalograss	<i>Bouteloua dactyloides</i>	6.2	Warm	4-8"	Sod
Blue Grama	<i>Bouteloua gracilis</i>	0.6	Warm	4-16"	Bunch/sod
Inland Saltgrass	<i>Dactyloctenium aegyptium</i>	0.9	Warm	4-16"	Sod
Bottlebrush squirreltail	<i>Elymus elymoides</i>	1.8	Cool	4-20"	Bunch
Prairie Junegrass	<i>Koeleria macrantha</i>	0.2	Cool	6-24"	Bunch
Western Wheatgrass	<i>Pascopyrum smithii</i>	3.2	Cool	12-32"	Sod
Alkali Sacaton (plains montane, wet-dry alkaline)	<i>Sporobolus airoides</i>	0.3	Warm	20-40"	Bunch

- All materials furnished shall be free of Colorado State noxious weeds as defined in Article III, Section 21-40 of the Code of the City of Fort Collins.
- All of the above seed mixes are based on one acre. When ordering, amounts need to be recalculated to fit actual acreage.

Ultimate
Landscape Plan
SCALE: 1" = 10'

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100 BLOCK OF THIRD STREET

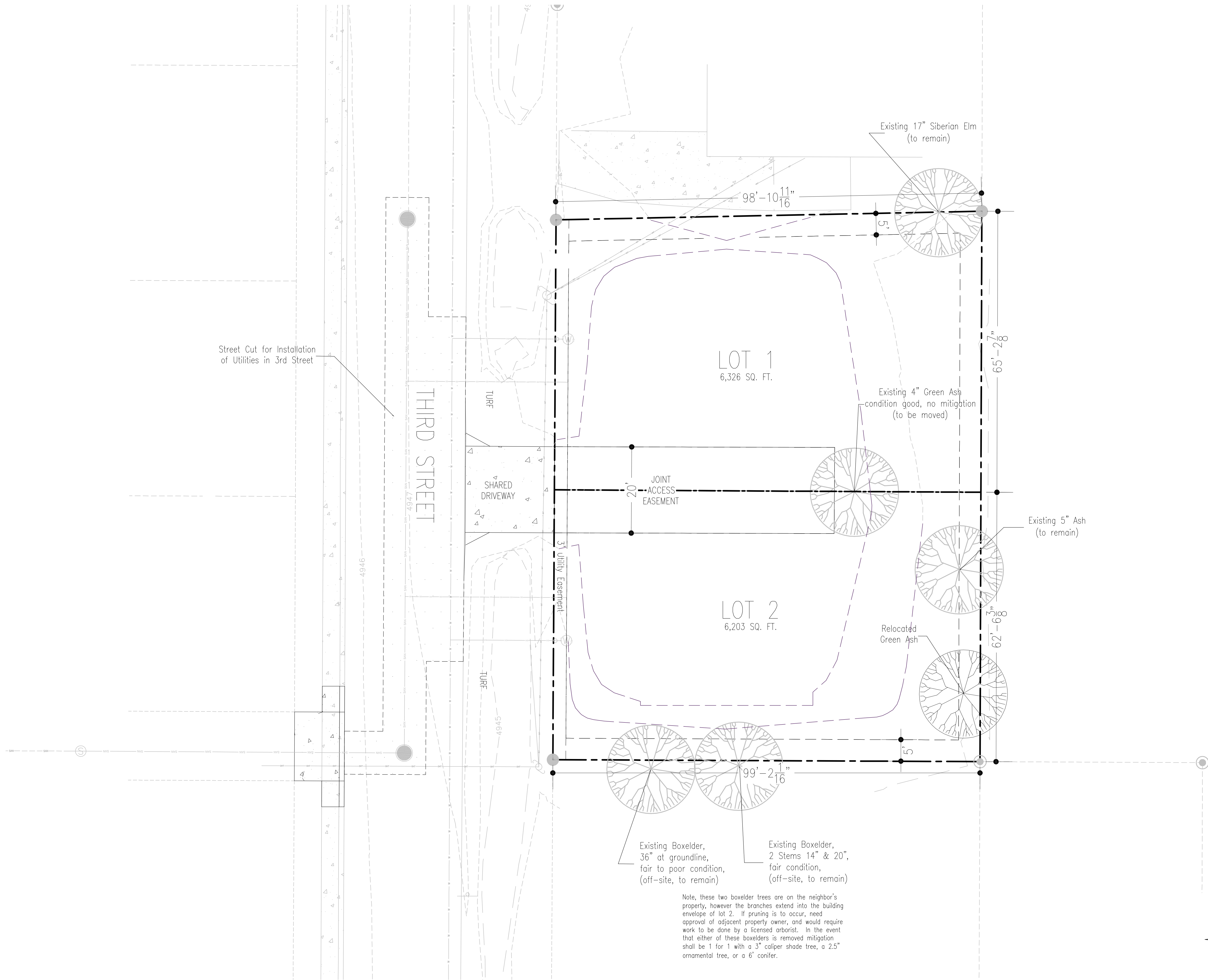


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Existing Boxelder,
36" at groundline,
fair to poor condition,
(off-site, to remain)

Existing Boxelder,
2 Stems 14" & 20",
fair condition,
(off-site, to remain)

Note, these two boxelder trees are on the neighbor's property, however the branches extend into the building envelope of lot 2. If pruning is to occur, need approval of adjacent property owner, and would require work to be done by a licensed arborist. In the event that either of these boxelders is removed mitigation shall be 1 for 1 with a 3" caliper shade tree, a 2.5" ornamental tree, or a 6' conifer.

Interim
Landscape Plan
SCALE: 1" = 10'

REVISION: 1/6/2015

DATE: 1/17/2012

5 of 5

BUCKINGHAM PLACE
SECOND FILING
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MCA
 Planning &
 Architecture

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BUCKINGHAM PLACE SECOND FILING

BEING LOCATED WITHIN THE NORTHEAST ONE-QUARTER OF SECTION 12,
TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO.

STATEMENT OF OWNERSHIP AND SUBDIVISION:

Know all persons by these presents, that the undersigned owner(s) of the following described land:
A tract of land located in the Northeast One-Quarter of Section 12, Township 7 North, Range 69 West of the Sixth Principal Meridian, City of Fort Collins, County of Larimer, State of Colorado, being more particularly described as follows:

Commencing at the East 1/4 corner of said Section 12, Thence N89°46'17"W 1959.52 feet along the South line of said Northeast One-Quarter to the intersection of the extension of the existing monumented East Right-of-Way line of 3rd Street; Thence N00°19'57"E 221.63 feet along the said East Right-of-Way line and extension thereof to the Point of Beginning; Thence N00°19'57"E 125.31 feet continuing along said East Right-of-Way line; Thence N88°50'13"E 98.89 feet to the West line of the Odell Brewing Company First Replat; Thence S00°11'21"W 127.77 feet along said West line to the Southeast corner of that parcel described at Reception No. 20120001338; Thence N89°44'22"E 99.17 feet along the south line of the parcel described at Reception No. 20120001338 to the Point of Beginning.

(which above described tract contains 0.287 acres, more or less) for themselves and their successors in interest (collectively, "Owner") have caused the above described land to be surveyed and subdivided into lots, tracts and streets as shown on this Plat to be known as BUCKINGHAM PLACE SECOND FILING (the "Development"), subject to all easements and rights-of-way now of record or existing or indicated on this Plat. The rights and obligations of this Plat shall run with the land.

CERTIFICATE OF DEDICATION:

The Owner does hereby dedicate and convey to the City of Fort Collins, Colorado (hereafter "City"), for public use, forever, a permanent right-of-way for street purposes and the "Easements" as laid out and designated on this Plat; provided, however, that (1) acceptance by the City of this dedication of Easements does not impose upon the City a duty to maintain the Easements so dedicated, and (2) acceptance by the City of this dedication of streets does not impose upon the City a duty to maintain streets so dedicated until such time as the provisions of the Maintenance Guarantee have been fully satisfied. The streets dedicated on this Plat are the fee property of the City as provided in Section 31-23-107 C.R.S. The City's rights under the Easements include the right to install, operate, maintain, reconstruct, remove and replace within the Easements public improvements consistent with the intended purpose of the Easements; the right to install, maintain and use gates in any fences that cross the Easements; the right to mark the location of the Easements with suitable markers; and the right to permit other public utilities to exercise these same rights. Owner reserves the right to use the Easements for purposes that do not interfere with the full enjoyment of the rights hereby granted. The City is responsible for maintenance of its own improvements and for repairing any damage caused by its activities in the Easements, but by acceptance of this dedication, the City does not accept the duty of maintenance of the Easements, or of improvements in the Easements that are not owned by the City. Owner will maintain the surfaces of the Easements in a sanitary condition in compliance with any applicable weed, nuisance or other legal requirements.

Except as expressly permitted in an approved plan of development or other written agreement with the City, Owner will not install on the Easements, or permit the installation on the Easements, of any building, structure, improvement, fence, retaining wall, sidewalk, tree or other landscaping (other than usual and customary grasses and other ground cover). In the event such obstacles are installed in the Easements, the City has the right to remove such obstacles from the Easements. If Owner does not remove such obstacles, the City may remove such obstacles without any liability or obligation for repair and replacement thereof, and charge the Owner the City's costs for such removal. If the City chooses not to remove the obstacles, the City will not be liable for any damage to the obstacles or any other property to which they are attached.

The rights granted to the City by this Plat inure to the benefit of the City's agents, licensees, permittees and assigns.

MAINTENANCE GUARANTEE:

The Owner hereby warrants and guarantees to the City, for a period of two (2) years from the date of completion and first acceptance by the City of the improvements warranted hereunder, the full and complete maintenance and repair of the improvements to be constructed in connection with the Development which is the subject of this Plat. This warranty and guarantee is made in accordance with the City Land Use Code and/or the Transitional Land Use Regulations, as applicable. This guarantee applies to the streets and all other apartment structures and amenities lying within the rights-of-way, Easements and other public properties, including, without limitation, all curbing, sidewalks, bike paths, drainage pipes, culverts, catch basins, drainage ditches and landscaping. Any maintenance and/or repair required on utilities shall be coordinated with the owning utility company or department.

The Owner shall maintain said improvements in a manner that will assure compliance on a consistent basis with all construction standards, safety requirements and environmental protection requirements of the City. The Owner shall also correct and repair, or cause to be corrected and repaired, all damages to said improvements resulting from development-related or building-related activities. In the event the Owner fails to correct any damages within thirty (30) days after written notice thereof, then said damages may be corrected by the City and all costs and charges billed to and paid by the Owner. The City shall also have any other remedies available to it as authorized by law. Any damages which occurred prior to the end of said two (2) year period and which are unrepaired at the termination of said period shall remain the responsibility of the Owner.

REPAIR GUARANTEE:

In consideration of the approval of this final Plat and other valuable consideration, the Owner does hereby agree to hold the City harmless for a five (5) year period, commencing upon the date of completion and first acceptance by the City of the improvements to be constructed in connection with the development which is the subject of this Plat, from any and all claims, damages, or demands arising on account of the design and construction of public improvements of the property shown herein; and the Owner furthermore commits to make necessary repairs to said public improvements, to include, without limitation, the roads, streets, fills, embankments, ditches, cross pans, sub-drains, culverts, walls and bridges within the right-of-way, Easements and other public properties, resulting from failures caused by design and/or construction defects. This agreement to hold the City harmless includes defects in materials and workmanship, as well as defects caused by or consisting of settling trenches, fills or excavations.

Further, the Owner warrants that he/she owns fee simple title to the property shown hereon and agrees that the City shall not be liable to the Owner or his/her successors in interest during the warranty period, for any claim of damages resulting from negligence in exercising engineering techniques and due caution in the construction of cross drains, drives, structures or buildings, the changing of courses of streams and rivers, flooding from natural creeks and rivers, and any other matter whatsoever on private property. Any and all monetary liability occurring under this paragraph shall be the liability of the Owner. I further warrant that I have the right to convey said land according to this Plat.

WITNESS OUR HANDS AND SEALS THIS _____ DAY OF _____ A.D., 20____
Owner: CHARLES LEVON MESERLIAN

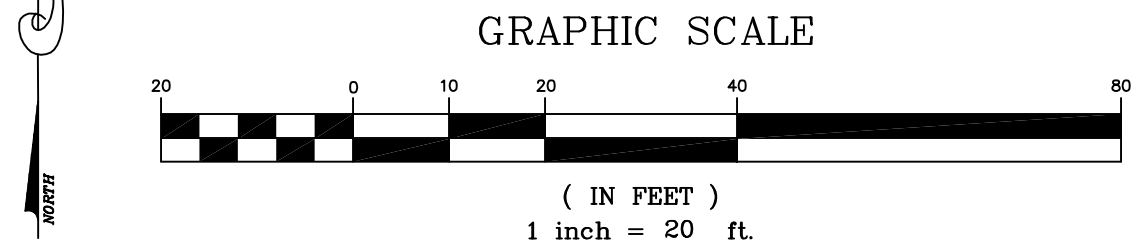
BY: _____
CHARLES LEVON MESERLIAN
STATE OF _____)
COUNTY OF _____) S.S.

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, A.D., 20____ BY CHARLES LEVON MESERLIAN.

MY COMMISSION EXPIRES _____ NOTARY PUBLIC
ADDRESS _____

LEGEND NOTE: SYMBOLS SHOWN HEREON ARE NOT TO SCALE

- (M) INDICATES MEASURED BEARING/DISTANCE BY THIS SURVEY AND PREVIOUS IMPROVEMENT SURVEY PLAT BY EDMONDS LAND SURVEYING, INC. OF THE SUBJECT PROPERTY.
- (R) INDICATES RECORD BEARING/DISTANCE FROM DEED AT REC. NO. 20120001338 OR FROM ADJOINING DEEDS OF RECORD
- INDICATES FOUND SURVEY MONUMENT AS NOTED
- INDICATES NO. 5 REBAR WITH PLASTIC CAP, PLS 37968



NOTICE

ALL RESPONSIBILITIES AND COSTS OF OPERATION, MAINTENANCE AND RECONSTRUCTION OF THE PRIVATE STREETS AND/OR DRIVES LOCATED ON THE PRIVATE PROPERTY THAT IS THE SUBJECT OF THIS PLAT SHALL BE BORNE BY THE OWNERS OF SAID PROPERTY, EITHER INDIVIDUALLY, OR COLLECTIVELY, THROUGH A PROPERTY OWNERS' ASSOCIATION, IF APPLICABLE. THE CITY OF FORT COLLINS SHALL HAVE NO OBLIGATION OF OPERATION, MAINTENANCE OR RECONSTRUCTION OF SUCH PRIVATE STREETS AND/OR DRIVES NOR SHALL THE CITY HAVE ANY OBLIGATION TO ACCEPT SUCH STREETS AND/OR DRIVES AS PUBLIC STREETS OR DRIVES.

PLANNING APPROVAL:

By the Director of Planning of the City of Fort Collins, Colorado this _____ day of _____, A.D., _____.

Director of Planning

APPROVED AS TO FORM, CITY ENGINEER:

By the City Engineer of the City of Fort Collins, Colorado this _____ day of _____, A.D., _____.

City Engineer

NOTICE OF OTHER DOCUMENTS:

All persons take notice that the Owner has executed certain documents pertaining to this Development which create certain rights and obligations of the Development, the Owner and/or subsequent Owners of all or portions of the Development site, many of which obligations constitute promises and covenants that, along with the obligations under this Plat, run with the land. The said documents may also be amended from time to time and may include, without limitation, the Development Agreement, Site and Landscape Covenants, Final Site Plan, Final Landscape Plan, and Architectural Elevations, which documents are on file in the office of the clerk of the City and should be closely examined by all persons interested in purchasing any portion of the Development site.

ATTORNEY'S CERTIFICATION:

I hereby certify that this Subdivision Plat has been duly executed as required pursuant to Section 2.2.3(C)(3)(a) through (e) inclusive of the Land Use Code of the City of Fort Collins and that all persons signing this Subdivision Plat on behalf of a corporation or other entity are duly authorized signatories under the laws of the State of Colorado. This Certification is based upon the records of the Clerk and Recorder of Larimer County, Colorado as of the date of execution of the Plat and other information discovered by me through reasonable inquiry and is limited as authorized by Section 2.2.3(C)(3)(f) of the Land Use Code.

ATTORNEY: _____
ADDRESS: _____

REGISTRATION NO.: _____

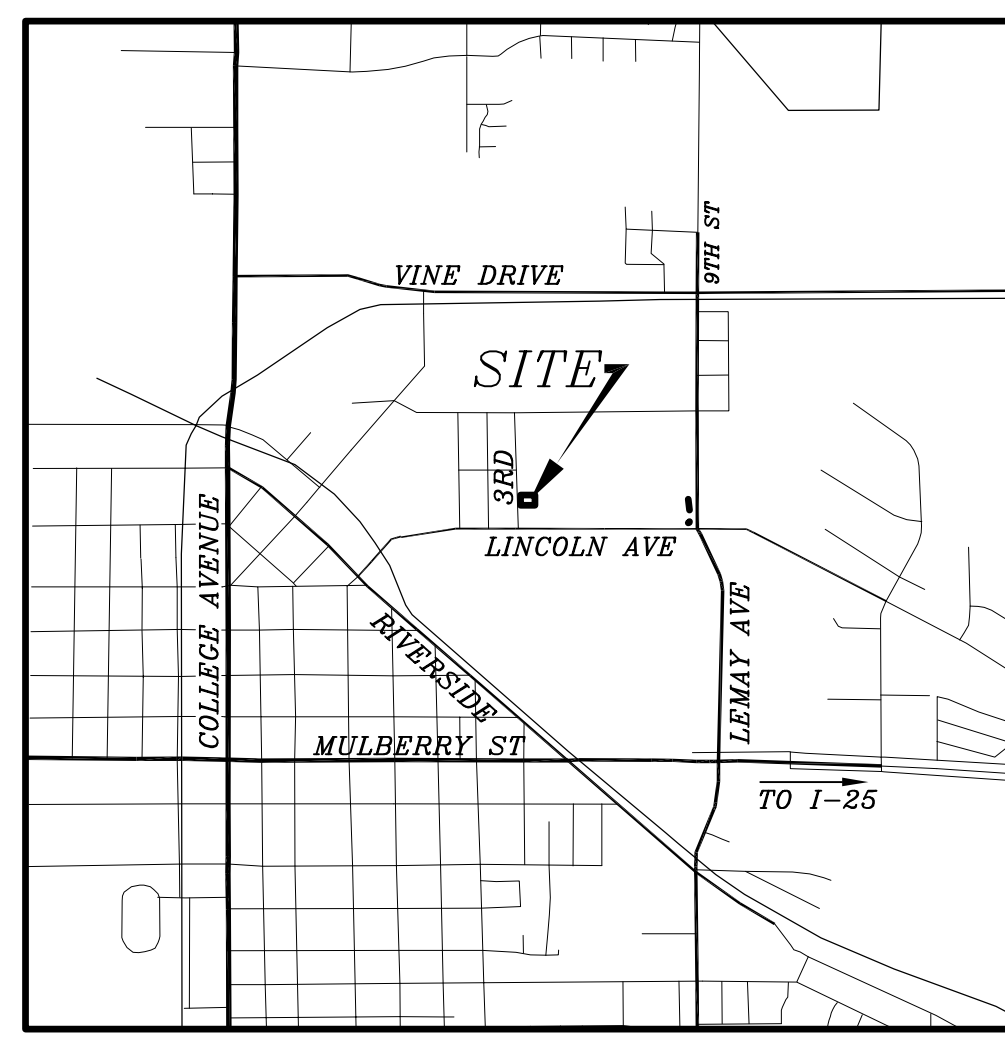
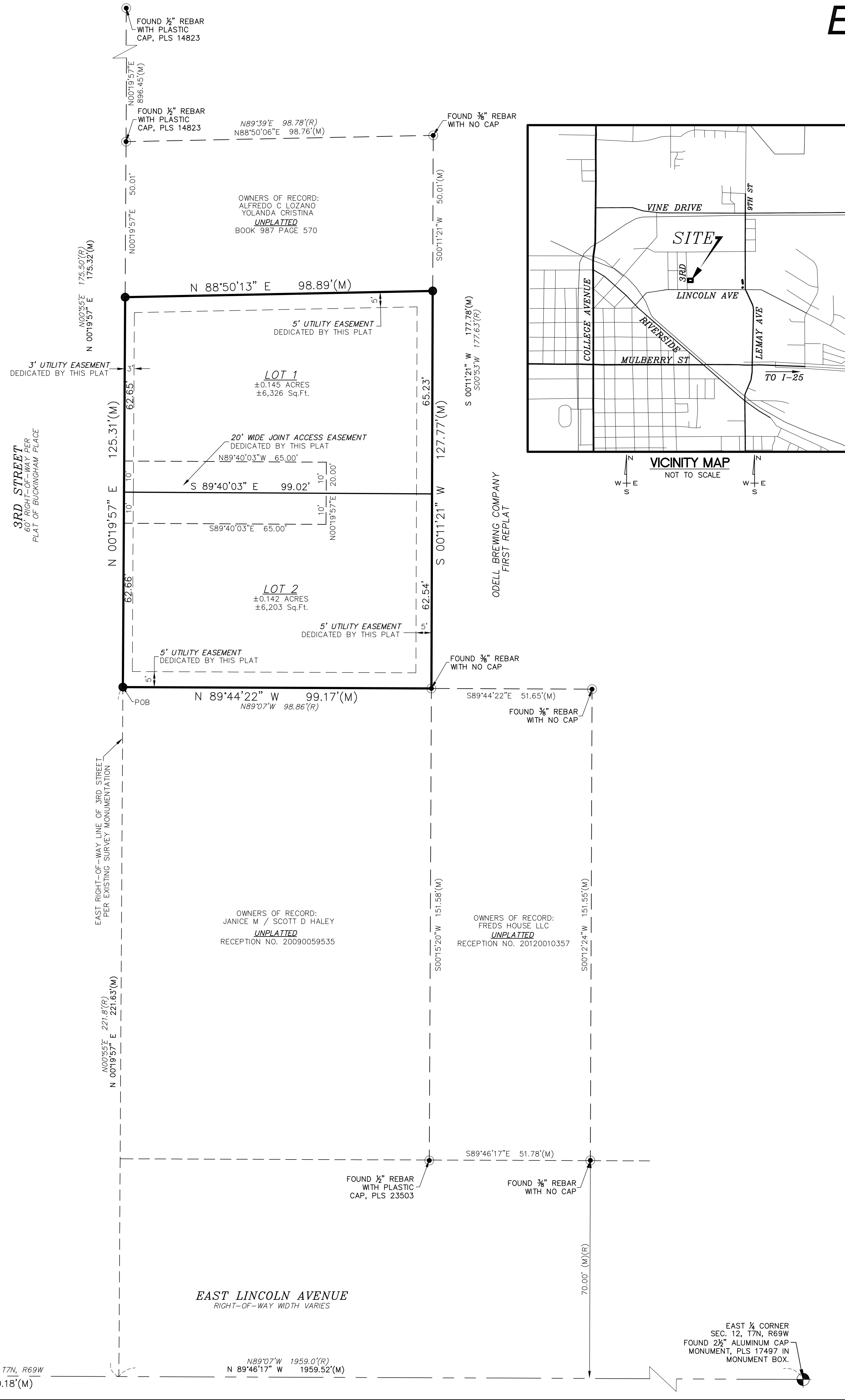
SURVEYOR'S STATEMENT:

I, Robert M. Edmonds, a Colorado Registered Professional Land Surveyor, do hereby state that this Subdivision Plat was prepared from an actual survey under my personal supervision, that the monumentation as indicated hereon were found or set as shown, and that the foregoing Plat is an accurate representation thereof, all this to the best of my knowledge, information and belief.

Robert M. Edmonds
Colorado Registered Professional Land Surveyor #37968

SURVEYOR'S NOTES

- 1.) BASIS OF BEARINGS: BEARINGS FOR THIS SURVEY ARE BASED ON THE SOUTH LINE OF THE NORTHEAST ONE-QUARTER OF SECTION 12, TOWNSHIP 7 NORTH, RANGE 69 WEST 6TH P.M., BETWEEN FOUND MONUMENTS AS SHOWN AND DESCRIBED HEREON. SAID LINE BEARS N89°46'17"W, BEING A GRID BEARING ON THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD83/2011.
- 2.) LAND TITLE GUARANTEE COMPANY'S TITLE COMMITMENT NO. FC25115854, DATED APRIL 30, 2013, WAS ENTIRELY RELIED UPON FOR EASEMENTS, RIGHTS-OF-WAY AND ENCUMBRANCES OF RECORD AFFECTING THE SUBJECT PROPERTY. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY EDMONDS LAND SURVEYING, INC. TO DETERMINE OWNERSHIP OR EASEMENTS, RIGHTS-OF-WAY OR ENCUMBRANCES OF RECORD.
- 3.) NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.
- 4.) THE LINEAL UNIT OF MEASUREMENT FOR THE SURVEY OF THIS PROPERTY IS U.S. SURVEY FEET.



DATE: NOVEMBER 7, 2012
SCALE: 1"=20'
DWG: RME
CHK: RME
PLAT: 07N69W12-107

CLIENT:
CHARLES MESERLIAN

EDMONDS LAND SURVEYING, INC.
PO BOX 641 KERSEY, CO 80644
PHONE (970) 686-6970
FAX (970) 284-6802
www.EdmondsLandSurveying.com

REVISIONS
1/14/13 CITY CODE AMENDMENT
4/30/13 TITLE COMMITMENT
11/7/14 REMOVE CITY DITCH / ADD UTILITY EASY

BUCKINGHAM PLACE SECOND FILING
BEING LOCATED WITHIN THE NORTHEAST ONE-QUARTER OF SECTION 12,
TOWNSHIP 7 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO.

PROJECT NO.:
12-0210

1
SHEET 1 OF 1

CENTER 1/4 CORNER
SEC. 12, 17N, R69W
FOUND 2 1/2" ALUMINUM CAP
WITH PLASTIC CAP, PLS 37968
IN MONUMENT BOX

SOUTH LINE NE1/4 SECTION 12, 17N, R69W
N 89°46'17" W 2650.18'(M)
N89°07' W (R)

EAST 1/4 CORNER
SEC. 12, 17N, R69W
FOUND 2 1/2" ALUMINUM CAP
MONUMENT, PLS 17497 IN
MONUMENT BOX

UTILITY PLANS FOR BUCKINGHAM PLACE SECOND FILING

LEGAL DESCRIPTION

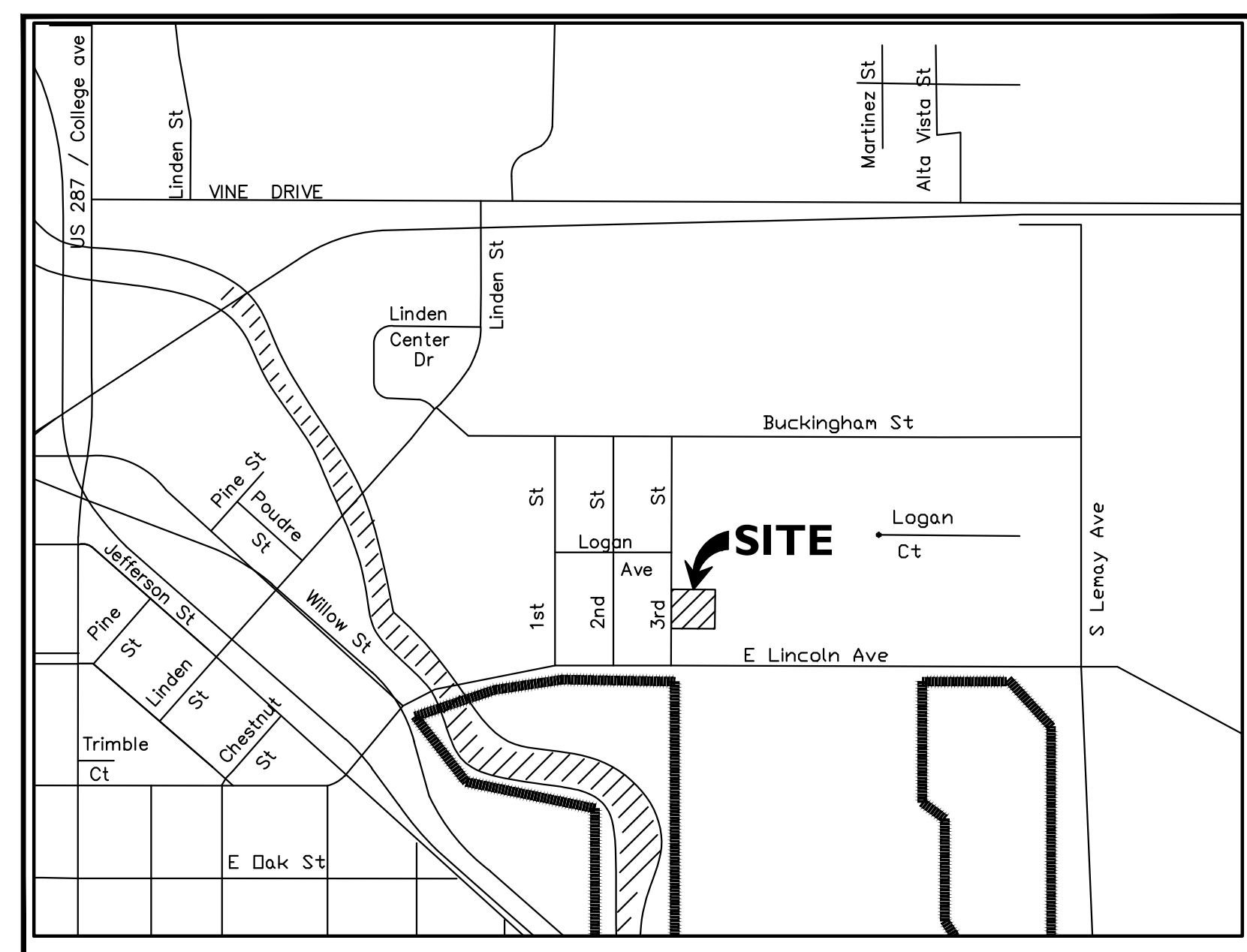
A tract of land located in the Northeast One-quarter of Section 12, Township 7 North, Range 69 West of the Sixth Principal Meridian, City of Fort Collins, County of Larimer, State of Colorado, being more particularly described as follows:

Commencing at the East 1/4 corner of said Section 12, Thence N89°46'17"W 1959.52 feet along the South line of said Northeast One-Quarter to the intersection of the extension of the existing monumented East Right-of-Way line of 3rd Street; Thence N00°19'57"E 221.63 feet along the said East Right-of-way line and extension thereof to the Point of Beginning; Thence N00°19'57"E 125.31 feet continuing along said East Right-of-Way line; Thence N88°50'13"E 98.89 feet to the West line of the Odell Brewing Company First Replat; Thence S00°11'21"W 127.77 feet along said West line to the Southeast corner of that parcel described at Reception No. 20120001338; Thence N89°44'22"W 99.17 feet along the south line of the parcel described at Reception No. 20120001338 to the Point of Beginning.

October 2014

VICINITY MAP

N.T.S.



INDEX OF DRAWINGS

- C1 - COVER SHEET
- C2 - GENERAL NOTES
- C3 - UTILITY PLAN - ULTIMATE CONDITION
- C4 - UTILITY PLAN - INTERIM CONDITION
- C5 - SANITARY SEWER PLAN AND PROFILE
- C6 - GRADING AND DRAINAGE PLAN - ULTIMATE CONDITION
- C7 - GRADING AND EROSION CONTROL PLAN - INTERIM CONDITION
- C8 - 3RD STREET PLAN AND PROFILE - ULTIMATE CONDITION
- C9 - 3RD STREET CROSS SECTIONS - ULTIMATE CONDITION
- C10 - CONSTRUCTION DETAILS - STREET AND SITE
- C11 - CONSTRUCTION DETAILS - UTILITIES

OWNER/ CONSULTANTS

OWNER/DEVELOPER

Mr. Charles Meserlian
700 N. College Avenue
Fort Collins, CO 80524

ENGINEER

APEX Engineering
908 Laporte Avenue
Fort Collins, CO 80521
970-219-2834

OTHER CONSULTANTS

PLANNER:
MTA Planning & Architecture
108 Rutgers Avenue
Fort Collins, CO 80525
970-416-7431

SURVEYOR:
Edmonds Land Surveying
P.O. Box 641
Fort Collins, CO 80644
970-686-6970

UTILITY PROVIDERS

WATER, SEWER, ELECTRIC

City of Fort Collins
700 Wood Street
Fort Collins, CO 80521
970-221-6700

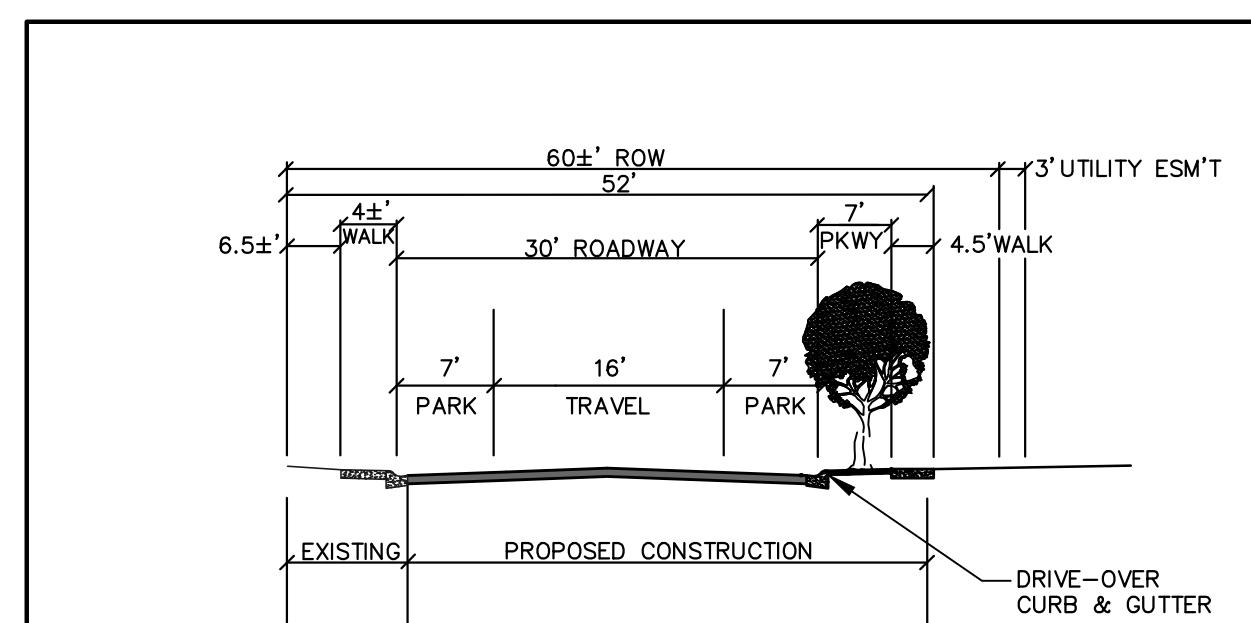
GAS

XCEL ENERGY
Contractor: Synergetic Design
12600 W. Colfax, Suite B-400
Lakewood, CO 80215
720-479-6107

UTILITY NOTIFICATION

**UTILITY NOTIFICATION
CENTER OF COLORADO**
16361 Table Mountain Pkwy
Lakewood, CO 80403
800-922-1987

GEOTECHNICAL ANALYSIS:
Earth Engineering Consultants
Soil Description and Limitation Report/
3rd Street Pavement Section Design
EEC Project No. 1122103
Dated November 7, 2012
(970) 545-3908



NOTES:

- SECTION IS BASED ON DESIGN FIGURE 7-9F OF THE LARIMER COUNTY URBAN AREA STREET STANDARDS FOR A RESIDENTIAL LOCAL STREET WITHIN THE CITY OF FORT COLLINS.
- WEST SIDE OF STREET IS EXISTING. CONTRACTOR SHALL SAWCUT EXISTING STREET ON PROPOSED CENTERLINE.
- SECTIONS VARY THROUGHOUT PROJECT. SEE STREET CROSS SECTIONS FOR ADDITIONAL INFORMATION.

N.T.S.

APEX ENGINEERING	ULTIMATE TYPICAL SECTION 3RD STREET STA. 11+72.99 TO 12+98.30	DETAIL NO. ST1
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I hereby affirm that these final construction plans were prepared under my direct supervision, in accordance with all applicable City of Fort Collins and State of Colorado standards and statutes, respectively; and that I am fully responsible for the accuracy of all design, revisions, and record conditions that I have noted on these plans.

Stacy J. Gowing
Colorado P.E. No. 34290

City of Fort Collins, Colorado UTILITY PLAN Approval	
APPROVED: _____	DATE: _____
City Engineer	
CHECKED BY: _____	DATE: _____
Water/Wastewater Utility	
CHECKED BY: _____	DATE: _____
Stormwater Utility	
CHECKED BY: _____	DATE: _____
Parks & Recreation	
CHECKED BY: _____	DATE: _____
Traffic Engineer	
CHECKED BY: _____	DATE: _____

NO.	DATE	BY	REVISION	APPROV.
1				
2				
3				
4				
5				
6				
7				

PRELIMINARY	NOT FOR CONSTRUCTION
-------------	----------------------

DESIGNED: BG	PROJECT NO: 45-104
DRAWN: DD	DATE: 10/29/2014
CHECKED: BG	

908 Laporte Avenue
Fort Collins, CO 80521
(970) 219-2834

BUCKINGHAM PLACE SECOND FILING	COVER SHEET
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SHEET:	CI OF C11
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General Notes

- 1. All materials, workmanship, and construction of public improvements shall meet or exceed the standards and specifications set forth in the Larimer County Urban Area Street Standards and applicable state and federal regulations. Where there is conflict between these plans and the specifications, or any applicable standards, the most restrictive standard shall apply. All work shall be inspected and approved by the City of Fort Collins.
2. All references to any published standards shall refer to the latest revision of said standard, unless specifically stated otherwise.
3. These public improvement construction plans shall be valid for a period of three years from the date of approval by the City of Fort Collins Traffic Engineer. Use of these plans after the expiration date will require a new review and approval process by the City of Fort Collins prior to commencement of any work shown in these plans.
4. The engineer who has prepared these plans, by execution and/or seal hereof, does hereby affirm responsibility to the City of Fort Collins Traffic Engineer for the design and construction of these plans, for any errors and omissions contained in these plans, and approval of these plans by the City of Fort Collins Traffic Engineer shall not relieve the engineer who has prepared these plans of all such responsibility. Further, to the extent permitted by law, the engineer hereby agrees to hold harmless and indemnify the City of Fort Collins, and its officers and employees, from and against all liabilities, claims, and demands which may arise from any errors and omissions contained in these plans.
5. All sanitary sewer, storm sewer, and water line construction, as well as power and other "dry" utility installations, shall conform to the City of Fort Collins standards and specifications current at the date of approval of the plans by the City of Fort Collins Traffic Engineer.
6. The type, size, location and number of all known underground utilities are approximate when shown on the drawings. It shall be the responsibility of the Developer to verify the existence and location of all underground utilities along the route of the work before commencing new construction. The Developer shall be responsible for unknown underground utilities.
7. The Developer or Developer's representative shall contact the Utility Notification Center of Colorado (UNCC) at 1-800-922-1987, at least 2 working days prior to beginning excavation or grading, to have all registered utility locations marked. Other unregistered utility entities (e.g. ditch/irrigation company) are to be located by contacting the respective representative. Utility service laterals are also to be located prior to beginning excavation or grading. It shall be the responsibility of the Developer to relocate all existing utilities that conflict with the proposed improvements shown on these plans.
8. The Developer shall be responsible for protecting all utilities during construction and for coordinating with the appropriate utility company for any utility crossings required.
9. If a conflict exists between existing and proposed utilities and/or a design modification is required, the Developer shall coordinate with the engineer to modify the design. Design modification(s) must be approved by the City of Fort Collins prior to beginning construction.
10. The Developer shall coordinate and cooperate with the City of Fort Collins, and all utility companies involved, to assure that the work is completed in a timely fashion with a minimum disruption of service. The Developer shall be responsible for contacting, in advance, all parties affected by any disruption of any utility service as well as the utility companies.
11. No work may commence within any public storm water, sanitary sewer or potable water system until the Developer notifies the utility provider. Notification shall be a minimum of 2 working days prior to commencement of any work. At the discretion of the water utility provider, a pre-construction meeting may be required prior to commencement of any work.
12. The Developer shall sequence installation of utilities in such a manner as to minimize potential utility conflicts. In general, storm sewer and sanitary sewer should be constructed prior to installation of water lines and dry utilities.
13. The minimum cover over water lines is 4.5 feet and the maximum cover is 5.5 feet unless otherwise noted in the plans and approved by the City of Fort Collins Water Utility.
14. A State Construction Dewatering Wastewater Discharge Permit is required if dewatering is required in order to install utilities or water is discharged into a storm sewer, channel, irrigation ditch or any waters of the United States.
15. The Developer shall comply with all terms and conditions of the Colorado Permit for Storm Water Discharge (Contact Colorado Department of Health, Water Quality Control Division, (303) 692-3590), the Storm Water Management Plan, and the Erosion Control Plan.
16. The City of Fort Collins shall not be responsible for the maintenance of storm drainage facilities located on private property. Maintenance of on-site drainage facilities shall be the responsibility of the property owner(s).
17. Prior to final inspection and acceptance by the City of Fort Collins, certification of the drainage facilities, by a registered engineer, must be submitted to and approved by the Stormwater Utility Department. Certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of a certificate of occupancy for single family units. For commercial construction, certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of any building permits in excess of those allowed prior to certification per the Development Agreement.
18. The City of Fort Collins shall not be responsible for any damages or injuries sustained in this Development as a result of groundwater seepage, which, including, structural damage or other damage or injuries are sustained as a result of the City of Fort Collins' failure to properly maintain its water, wastewater, and/or storm drainage facilities in the Development.
19. All recommendations of the Final Drainage Letter and Erosion Control Report, dated May 4, 2013, prepared by Apex Engineering, shall be followed and implemented.
20. Temporary erosion control during construction shall be provided as shown on the Erosion Control Plan. All erosion control measures shall be maintained in place until such time as the entire disturbed area is stabilized with hard surface or landscaping.
21. The Developer shall be responsible for insuring that no mud or debris shall be tracked onto the existing public street system. Mud and debris must be removed within 24 hours by an appropriate mechanical method (e.g. machine broom sweep, light duty front-end loader, etc.) or as approved by the City of Fort Collins street inspector.
22. No work may commence within any improved or unimproved public Right-of-Way until a Right-of-Way Permit or Development Construction Permit is obtained, if applicable.
23. The Developer shall be responsible for obtaining all necessary permits for all applicable agencies prior to commencement of construction. The Developer shall notify the City of Fort Collins Traffic Engineering Inspector (221-6605) and the City of Fort Collins Erosion Control Inspector (221-6700) at least 2 working days prior to the start of any earth disturbing activity, or construction on any and all public improvements. If the City of Fort Collins Engineer is not available after proper notice of construction activity has been provided, the Developer may commence work in the Engineer's absence. However, the City of Fort Collins reserves the right not to accept the improvement if subsequent testing reveals an improper installation.
24. The Developer shall be responsible for obtaining soils tests within the Public Right-of-Way after right-of-way grading and all utility trench work is complete and prior to the placement of curb, gutter, sidewalk and pavement. If the final soils/pavement design report does not correspond with the results of the original geotechnical report, the Developer shall be responsible for a re-design of the subject pavement section, or the Developer may use the City of Fort Collins' default pavement thickness section(s). Regardless of the option used, all final soils/pavement design reports shall be prepared by a licensed Professional Engineer. The final report shall be submitted to the Inspector a minimum of 10 working days prior to the placement of base and asphalt. Placement of curb, gutter, sidewalk, base and asphalt shall not occur until the City of Fort Collins Traffic Engineer approves the final report.
25. The Developer shall hire a licensed engineer or land surveyor to survey the constructed elevations of the street subgrade and the gutter flowline at all intersections, inlets, and other locations requested by the City of Fort Collins Inspector. The engineer or surveyor must certify in a letter to the City of Fort Collins that these elevations conform to the approved plans and specifications. Any deviations shall be noted in the letter and then resolved with the City of Fort Collins before installation of base and asphalt is allowed on the streets.
26. All utility installations within or across the roadway of new residential roads must be completed prior to the final stages of road construction. For the purposes of these standards, any work except curb/gutter above the subgrade is considered final stage work. All service lines must be stubbed to the property lines and marked so as to reduce the excavation necessary for building connections.
27. Portions of Larimer County are within overlay districts. The Larimer County Flood Plain Resolution should be referred to for additional criteria for roads within these districts.
28. All road construction in areas designated as Wild Fire Hazard Areas shall be done in accordance with the construction criteria as established in the Wild Fire Hazard Area Mitigation Regulations in force at the time of the final plan approval.
29. Prior to the commencement of any construction, the contractor shall contact the City of Fort Collins Forester to schedule a site inspection for any tree removal requiring a permit.
30. The Contractor shall be responsible for all aspects of safety including, but not limited to, excavation, trenching, shoring, traffic control, and security. Refer to OSHA Publication 2226, Excavation and Trenching.
31. The Developer shall submit a Construction Traffic Control Plan, in accordance with MUTCD, to the appropriate Right-of-Way authority (City of Fort Collins, Larimer County of State of Colorado), for approval prior to any construction activities within, or affecting, the Right-of-Way. The Developer shall be responsible for providing any and all traffic control devices as may be required by the construction activities.
32. Prior to the commencement of any construction that will affect traffic signs of any type, the contractor shall contact the City of Fort Collins Traffic Operations Department, who will temporarily remove or relocate the sign at no cost to the contractor; however, if the contractor moves the traffic sign then the contractor will be charged for the labor, materials and equipment to reinstall the sign as needed.
33. The Developer is responsible for all costs for the initial installation of traffic signs and striping for the Development related to the Development's local street operations. In addition, the Developer is responsible for all costs for traffic signing and striping related to directing traffic access to and from the Development.
34. There shall be no site construction activities on Saturdays, unless specifically approved by the City of Fort Collins Traffic Engineer, and no site construction activities on Sundays or holidays, unless there is prior written approval by the City of Fort Collins.
35. The Developer is responsible for providing all labor and materials necessary for the completion of the intended improvements shown on these drawings, or designated to be provided, installed, or constructed, unless specifically noted otherwise.
36. Dimensions for layout and construction are not to be scaled from any drawing. If pertinent dimensions are not shown, contact the Designer for clarification, and annotate the dimension on the as-built record drawings.
37. The Developer shall have on-site at all times one (1) signed copy of the approved plans, one (1) copy of the appropriate standards and specifications, and a copy of any permits and extension agreements needed for the job.
38. If during the construction process conditions are encountered which could indicate a situation that is not identified in the plans or specifications the Developer shall contact the Designer and the City of Fort Collins Traffic Engineer immediately.
39. The Developer shall be responsible for recording as-built information on a set of record drawings kept on the construction site, and available to the City of Fort Collins' Inspector at all times. Upon completion of the work, the Developer shall submit record drawings to the City of Fort Collins Traffic Engineer.
40. The location and description of the nearest survey benchmarks, as provided by the City of Fort Collins, and the basis of bearings for the project are as follows:

Project Datum: NGVD29 Unadjusted (Old City of Fort Collins Datum)

Benchmark #R-402
Described by national geodetic survey 1984 in Fort Collins, at the junction of 9th Street and Lincoln Avenue, in the east edge of the concrete footing for highline tower number 29, 47.8 meters (156.8 ft) north of the centerline of the avenue, 22.3 meters (73.2 ft) west of the centerline of the street, and 0.2 meter (0.7 ft) west of the east edge of the footing.
note - the footing is 96-inches in diameter, 26-1/2 feet deep and set into 9 feet of bedrock.
Elevation: NGVD29 = 4939.03 feet.

Benchmark #3-00
Description: On a parapet wall at Northwest end of the Lincoln Avenue bridge near the Northeast corner of Lincoln Avenue and Willow Street.
Elevation: NGVD29 = 4964.15

Basis of Bearings: Bearings are based on the south line of the northeast one-quarter of Section 12, Township 7 North, Range 69 West of the 6th p.m. Solid line bears N89°46'17"W, being a grid bearing on the Colorado State Plane Coordinate System, North Zone, NAD83/2007.

- 41. All stationing is based on centerline unless otherwise noted.
42. Damaged curb, gutter and sidewalk existing prior to construction, as well as existing fences, trees, streets, sidewalks, curbs and gutters, landscaping, structures, and improvements destroyed, damaged or removed due to construction of this project shall be replaced or restored in like kind at the Developer's expense, unless otherwise indicated on these plans, prior to the acceptance of completed improvements and/or prior to the issuance of the first Certificate of Occupancy.
43. When an existing asphalt street must be cut, the street must be restored to a condition equal to or better than its original condition. The existing street condition shall be documented by the City of Fort Collins Construction Inspector before any cuts are made. Patching shall be done in accordance with the City of Fort Collins Street Repair Standards. The finished patch shall blend in smoothly into the existing surface. All large patches shall be paved with an asphalt lay-down machine. In streets where more than one cut is made, an overlay of the entire street width, including the patched area, may be required. The determination of need for a complete overlay shall be made by the City of Fort Collins Traffic Engineer and/or the City of Fort Collins Inspector at the time the cuts are made.
44. Upon completion of construction, the site shall be cleaned and restored to a condition equal to, or better than, that which existed before construction, or to the grades and condition as required by these plans.
45. Standard handicap ramps are to be constructed at all curb returns and at all "T" intersections.
46. After acceptance by the City of Fort Collins, public improvements depicted in these plans shall be guaranteed to be free from material and workmanship defects for a Minimum period of two years from the date of acceptance.
47. The City of Fort Collins shall not be responsible for the maintenance of roadway and appurtenant improvements, including storm drainage structures and pipes, for the private drive ditches and parking lots.
48. Approved Variances are listed as follows:

Construction Notes

- A. Grading and Erosion Control Notes
1. The erosion control inspector must be notified at least twenty-four (24) hours prior to any construction on this site.
2. There shall be no earth-disturbing activity outside the limits designated on the accepted plans.
3. All required perimeter silt and construction fencing shall be installed prior to any land-disturbing activity (stockpiling, stripping, grading, etc.). All other required erosion control measures shall be installed at the appropriate time in the construction sequence as indicated in the approved project schedule, construction plans, and erosion control report.
4. At all times during construction, the Developer shall be responsible for preventing and controlling on-site erosion including keeping the property sufficiently watered so as to minimize wind blown sediment. The Developer shall also be responsible for installing and maintaining all erosion control facilities shown herein.
5. Pre-disturbance vegetation shall be protected and retained wherever possible. Removal or disturbance of existing vegetation shall be limited to the area(s) required for immediate construction operations, and for the shortest practical period of time.
6. All soils exposed during land disturbing activity (stripping, grading, utility installations, stockpiling, filling, etc.) shall be kept in a roughened condition by ripping or disking along land contours until mulch, vegetation, or other permanent erosion control BMPs are installed. No soils in areas outside project street rights-of-way shall remain exposed by land disturbing activity for more than thirty (30) days before required temporary or permanent erosion control (e.g. seed/mulch, landscaping, etc.) is installed, unless otherwise approved by the City.
7. In order to minimize erosion potential, all temporary (structural) erosion control measures shall:
a. Be inspected at a minimum of once every two (2) weeks and after each significant storm event and repaired or reconstructed as necessary in order to ensure the continued performance of their intended function.
b. Remain in place until such time as all the surrounding disturbed areas are sufficiently stabilized as determined by the erosion control inspector.
c. Be removed after the site has been sufficiently stabilized as determined by the erosion control inspector.
8. When temporary erosion control measures are removed, the Developer shall be responsible for the clean up and removal of all sediment and debris from all drainage infrastructure and other public facilities.
9. The contractor shall immediately clean up any construction materials inadvertently deposited on existing streets, sidewalks, or other public rights of way, and make sure streets and walkways are cleaned at the end of each working day.
10. All retained sediments, particularly those on paved roadway surfaces, shall be removed and disposed of in a manner and location so as not to cause their release into any waters of the United States.
11. No soil stockpile shall exceed ten (10) feet in height. All soil stockpiles shall be protected from sediment transport by surface roughening, watering, and perimeter silt fencing. Any soil stockpile remaining after thirty (30) days shall be seeded and mulched.
12. The stormwater capacity of detention ponds will be restored and storm sewer lines will be cleaned upon completion of the project and before turning the maintenance over to the Association.
13. City Ordinance and Colorado Discharge Permit System (CDPS) requirements make it unlawful to discharge or allow the discharge of any pollutant or contaminated water from construction sites. Pollutants include, but are not limited to discarded building materials, concrete truck washout, chemicals, oil and gas products, litter, and sanitary waste. The Developer shall at all times take whatever measures are necessary to assure the proper containment and disposal of pollutants on the site in accordance with any and all applicable local, state, and federal regulations.
14. A designated area shall be provided on site for concrete truck chute washout. The area shall be constructed so as to contain washout material and located at least fifty (50) feet away from any waterway during construction. Upon completion of construction activities the concrete washout material shall be removed and properly disposed of prior to the area being restored.
15. Conditions in the field may warrant erosion control measures in addition to what is shown on these plans. The Developer shall implement whatever measures are determined necessary, as directed by the City.

B. Street Improvement Notes:

- 1. All street construction is subject to the General Notes on these plans as well as the Street Improvement Notes listed here.
2. A paving section design, signed and stamped by a Colorado licensed Engineer, must be submitted to the City of Fort Collins Traffic Engineer for approval prior to any street construction activity (full depth asphalt sections are not permitted at a depth greater than 8 inches of asphalt). The job mix shall be submitted for approval prior to placement of any asphalt.
3. Where proposed paving adjoins existing asphalt, the existing asphalt shall be saw-cut a minimum of 12 inches from the existing edge to create a clean construction joint. The Developer shall be required to remove existing pavement to a distance where a clean construction joint can be made.
4. Street subgrades shall be scarified the top 12 inches and re-compacted prior to subbase installation. No base material shall be laid until the subgrade has been inspected and approved by the City of Fort Collins Traffic Engineer.
5. Valve boxes and manholes are to be brought up to grade at the time of pavement placement or overlay. Valve box adjusting rings are not allowed.
6. When an existing asphalt street must be cut, the street must be restored to a condition equal to or better than its original condition. The existing street condition shall be documented by the inspector before any cuts are made. Cutting and patching shall be done in conformance with Chapter 25, Reconstruction and Repair of the Larimer County Urban Area Street Standards. The finished patch shall blend smoothly into the existing surface. The determination of need for a complete overlay shall be made by the City of Fort Collins Traffic Engineer. All overlay work shall be coordinated with adjacent landowners such that the City of Fort Collins Engineer is not available after proper notice of construction activity has been provided, the Developer may commence work in the Engineer's absence. However, the City of Fort Collins reserves the right not to accept the improvement if subsequent testing reveals an improper installation.
7. All traffic control devices shall be in conformance with these plans or as otherwise specified in the MUTCD (including Colorado supplement) and as per the Right-of-Way Work Permit traffic control plan.
8. The Developer is required to perform a gutter water flow test in the presence of the City of Fort Collins Inspector and prior to installation of asphalt. Gutters that hold more than 1/4 inch deep or 5 feet longitudinally of water shall be completely removed and reconstructed to drain properly.
9. Prior to placement of the H.B.P. concrete within the street and after moisture/density tests have been taken on the subgrade material (when a full depth section is proposed) or on the subgrade and base material (when a composite section is proposed), a mechanical "proof roll" will be required. The entire subgrade and/or base material shall be rolled with a heavily loaded vehicle having a total GVW of not less than 50,000 lbs and a single axle weight of at least 18,000 lbs with pneumatic tires inflated to not less than 90 psig. "Proof roll" vehicles shall not travel at speeds greater than 3 mph. Any portion of the subgrade or base material which exhibits excessive pumping or deformation, as determined by the City of Fort Collins Traffic Engineer shall be reworked, replaced or otherwise modified to form a smooth, non-yielding surface. The City of Fort Collins Traffic Engineer shall be notified at least 24 hours prior to the "proof roll." All "proof rolls" shall be performed in the presence of an Inspector.

C. Traffic Signing and Pavement Marking Construction Notes:

- 1. All signing and marking is subject to the General Notes on these plans as well as the Traffic Signing and Pavement Marking Construction Notes listed here.
2. All symbols, including arrows, ONLYs, crosswalks, stop bars, etc shall be of pre-formed thermoplastic material.
3. All signage shall be per City of Fort Collins Standards and these plans or as otherwise specified in the MUTCD.
4. All lane lines for asphalt pavement shall receive two coats of latex paint with glass beads.
5. All lane lines for concrete pavement shall be epoxy paint.
6. Prior to permanent installation of traffic striping and symbols, the Developer shall place temporary bars or tape depicting alignment and placement of the same. Their placement shall be approved by the City of Fort Collins Traffic Engineer prior to permanent installation of striping and symbols.
7. Pre-formed thermoplastic applications shall be as specified in these plans and/or the Larimer County Urban Area Street Standards.
8. Epoxy applications shall be applied as specified in CDOT Standard Specifications for Road and Bridge Construction.
9. All surfaces shall be thoroughly cleaned prior to installation of striping or markings.
10. All sign posts shall utilize break-away assemblies and fasteners per the Standards.
11. A field inspection of location and installation of all signs shall be performed by the City of Fort Collins Traffic Engineer. All discrepancies identified during the field inspection must be corrected before the 2-year warranty period will begin.
12. The Developer installing signs shall be responsible for locating and protecting all underground utilities.
13. Special care shall be taken in sign location to ensure an unobstructed view of each sign.
14. Signage and striping has been determined by information available at the time of review. Prior to initiation of the warranty period, the City of Fort Collins Traffic Engineer reserves the right to require additional signage and/or striping if he/she determines that an unforeseen condition warrants such signage according to the MUTCD or the CDOT M and S Standards. All signage and striping shall fall under the requirements of the 2-year warranty period for new construction (except fair wear on traffic markings).
15. Sleeves for sign posts shall be required for use in islands/medians. Refer to Chapter 14, Traffic Control Devices, of the Larimer County Urban Area Street Standards for additional detail.

D. Storm Drainage Notes:

- 1. The City of Fort Collins shall not be responsible for the maintenance of storm drainage facilities located on private property. Maintenance of on-site drainage facilities shall be the responsibility of the property owner(s).
2. All recommendations of the Final Drainage Letter and Erosion Control Report, dated May 4, 2013, prepared by Apex Engineering, shall be followed and implemented.
3. Prior to final inspection and acceptance by the City of Fort Collins, certification of the drainage facilities, by a registered engineer, must be submitted to and approved by the Stormwater Utility Department. Certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of a certificate of occupancy for single family units. For commercial construction, certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of any building permits in excess of those allowed prior to certification per the Development Agreement.

E. Waterline Notes:

- 1. The minimum cover over water lines is 4.5 feet and the maximum cover is 5.5 feet unless otherwise noted in the plans and approved by the City of Fort Collins Water Utility.

LEGEND OF SYMBOLS - PROPOSED

- WATER MAIN
WATER SERVICE
WATER METER
FIRE HYDRANT
WATER VALVE
SANITARY SEWER MAIN
SANITARY SEWER SERVICE
MANHOLE
FLOWLINE
STORM INLET
FLARED END SECTION
FLOW ARROW
CONTOUR
SPOT ELEV
BASIN LABEL
MAJOR BASIN BOUNDARY
EXIST DISCHARGE POINT
SILT FENCE
STRAW BALE BARRIER
GRAVEL INLET FILTER
VEHICLE TRACKING CONTROL PAD

LEGEND OF SYMBOLS - EXISTING

- FENCE
UNDERGROUND TELEPHONE LINE
UNDERGROUND GAS LINE
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
UNDERGROUND SEWER LINE
TELECOMMUNICATIONS BOX
ELECTRIC VAULT
SEWER MANHOLE
WATER METER
WATER VALVE
FIRE HYDRANT
TREE
CONCRETE
ASPHALT
CONTOUR

LEGEND OF ABBREVIATIONS

- BOW - BACK OF WALK
BM - BENCHMARK
C&G - CURB AND GUTTER
CL - CENTERLINE
CMP - CORRUGATED METAL PIPE
CO - CLEAN OUT
CONC - CONCRETE
CONST - CONSTRUCTION
DIP - DUCTILE IRON PIPE
E - EASTING
EA - EMERGENCY ACCESS
EXIST - EXISTING
ELEV - ELEVATION
EOA - EDGE OF ASPHALT
EOC - EDGE OF CONCRETE
EOLS - EDGE OF LANDSCAPING
ESMT - EASEMENT
FES - FLARED END SECTION
FL - FLOWLINE
G - GROUND
GV - GATE VALVE
HDPE - HIGH DENSITY POLYETHYLENE PIPE
VF - VERTICAL FEET
HGL - HYDRAULIC GRADE LINE
HP - HIGH POINT
ID - INNER DIAMETER
INV - INVERT
IP - INLET PROTECTION
LF - LINEAR FEET
LOD - LIMIT OF DISTURBANCE
LP - LOW POINT
LST - LINEAR SEDIMENT TRAP
MAX - MAXIMUM
MIN - MINIMUM
MH - MANHOLE
N - NORTHING
OD - OUTSIDE DIAMETER
P/L - PROPERTY LINE
PC - POINT OF CURVATURE
PI - POINT OF INTERSECTION
PRC - POINT OF REVERSE CURVATURE
PROP - PROPOSED
PT - POINT OF TANGENCY
PVC - POLYVINYL CHLORIDE PIPE
PVI - POINT OF VERTICAL INTERSECTION
R - RADIUS
RCP - REINFORCED CONCRETE PIPE
ROW - RIGHT OF WAY
SAN - SANITARY SEWER
SD - STORM SEWER
SBD - STRAW BALE DIKE
SF - SILT FENCE
STA - STATION
SW - STRAW/WATTLE
SW - SIDEWALK
TB - THURST BLOCK
TOC - TOP OF CURB
TYP - TYPICAL
UDE - UTILITY AND DRAINAGE EASEMENT
UDPAE - UTILITY, DRAINAGE AND PUBLIC ACCESS EASEMENT
VTP - VERTICAL TRACKING PAD
W - WATER
W/ - WITH
VC - VERTICAL CURVE

Table with columns: APPROV., REVISION, NO., DATE, BY.

PRELIMINARY
NOT FOR CONSTRUCTION

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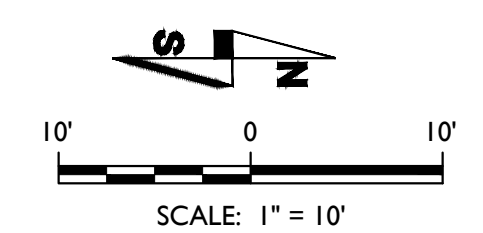
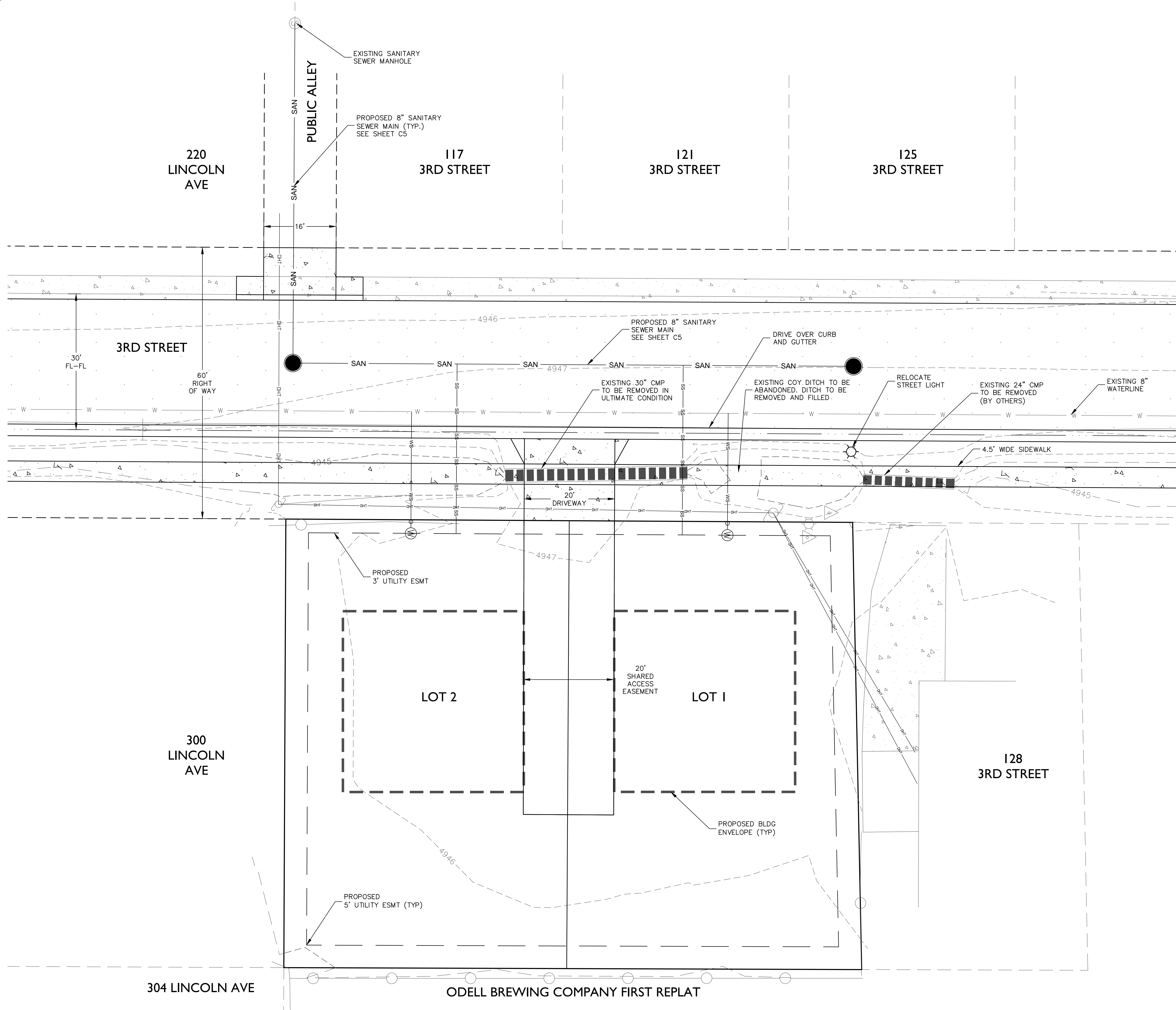


908 Laporte Avenue
Fort Collins, CO 80521
(970) 219-2834

BUCKINGHAM PLACE SECOND FILING
GENERAL NOTES
FORT COLLINS, COLORADO

City of Fort Collins, Colorado
UTILITY PLAN Approval
APPROVED: _____ DATE: _____
City Engineer
CHECKED BY: _____ DATE: _____
Water/Wastewater Utility
CHECKED BY: _____ DATE: _____
Stormwater Utility
CHECKED BY: _____ DATE: _____
Parks & Recreation
CHECKED BY: _____ DATE: _____
Traffic Engineer
CHECKED BY: _____

SHEET:
C2 OF C11



- NOTE:**
1. ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
 2. IT IS EXPECTED THAT THE ULTIMATE 3RD STREET IMPROVEMENTS AND THE ABANDONMENT OF THE COY. DITCH WILL NOT BE CONSTRUCTED WITH THE INITIAL DEVELOPMENT OF THIS SITE. SEE INTERIM UTILITY PLAN ON SHEET C4 AND INTERIM GRADING PLAN ON SHEET C8 FOR DETAILS ON INITIAL IMPROVEMENTS.

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City Engineer, or the City of Fort Collins for accuracy and corrections of the calculations. Furthermore, the review does not imply that the quantities of the items on the plans are the final quantities required. The review shall not be construed in any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

**City of Fort Collins, Colorado
UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
City Engineer

CHECKED BY: _____ DATE: _____
Water/Wastewater Utility

CHECKED BY: _____ DATE: _____
Stormwater Utility

CHECKED BY: _____ DATE: _____
Parks & Recreation

CHECKED BY: _____ DATE: _____
Traffic Engineer

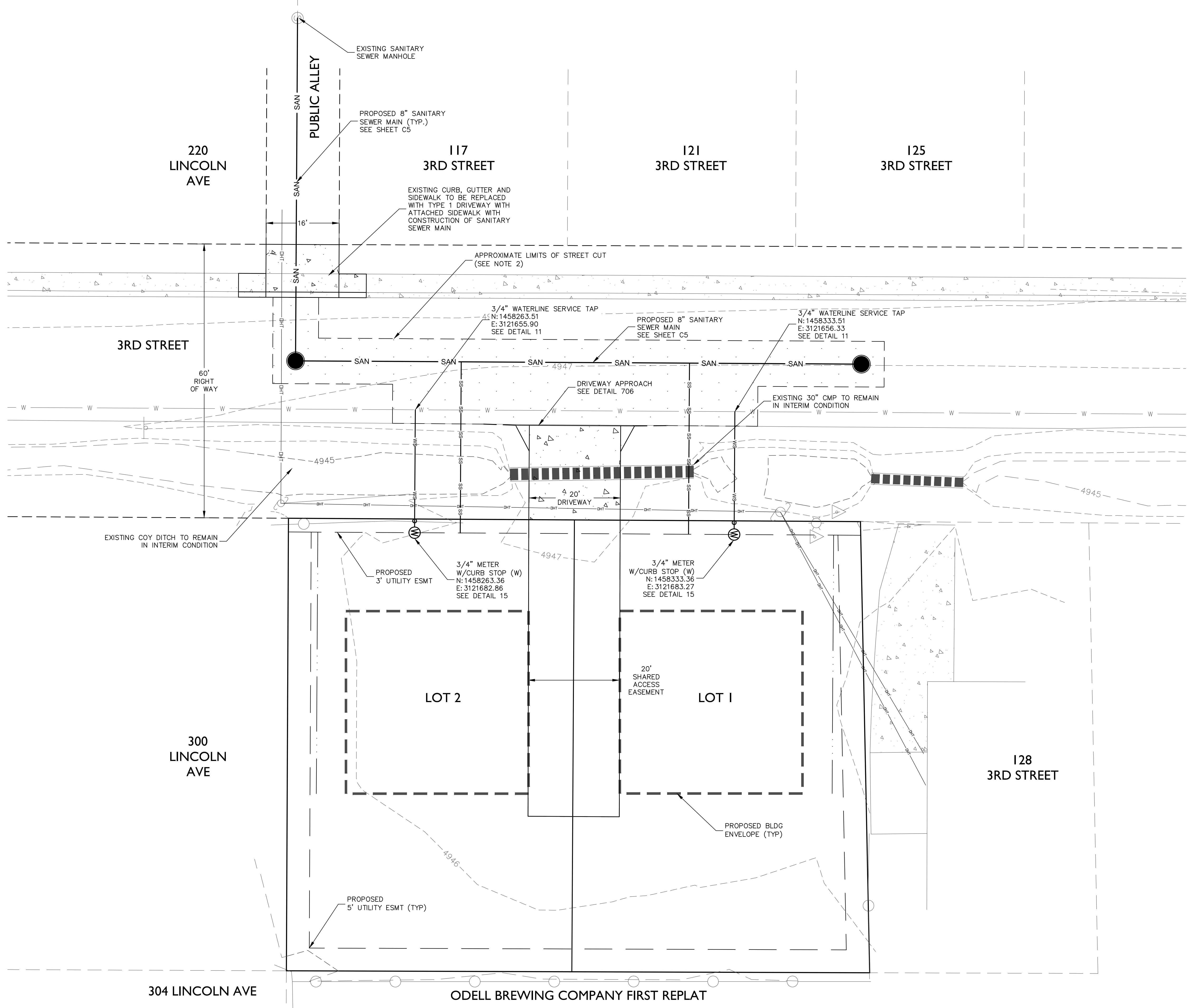
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PRELIMINARY
NOT FOR CONSTRUCTION

DESIGNED: BG
 DRAWN: DD
 CHECKED: BG
 PROJECT NO: 45-104
 DATE: 10/29/2014

APEX ENGINEERING
 908 Laporte Avenue
 Fort Collins, CO 80521
 (970) 219-2834

BUCKINGHAM PLACE SECOND FILING
 UTILITY PLAN
 ULTIMATE CONDITION
 FORT COLLINS, COLORADO



NOTE:

1. ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
2. LIMITS OF STREET CUT ARE APPROXIMATE. FINAL LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE CITY ENGINEERING INSPECTOR. ALL REPAIRS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS.

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**City of Fort Collins, Colorado
UTILITY PLAN Approval**

APPROVED: _____ City Engineer DATE: _____

CHECKED BY: _____ Water/Wastewater Utility DATE: _____

CHECKED BY: _____ Stormwater Utility DATE: _____

CHECKED BY: _____ Parks & Recreation DATE: _____

CHECKED BY: _____ Traffic Engineer DATE: _____

CHECKED BY: _____ DATE: _____

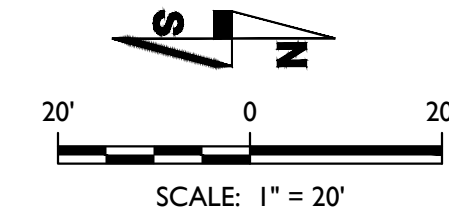
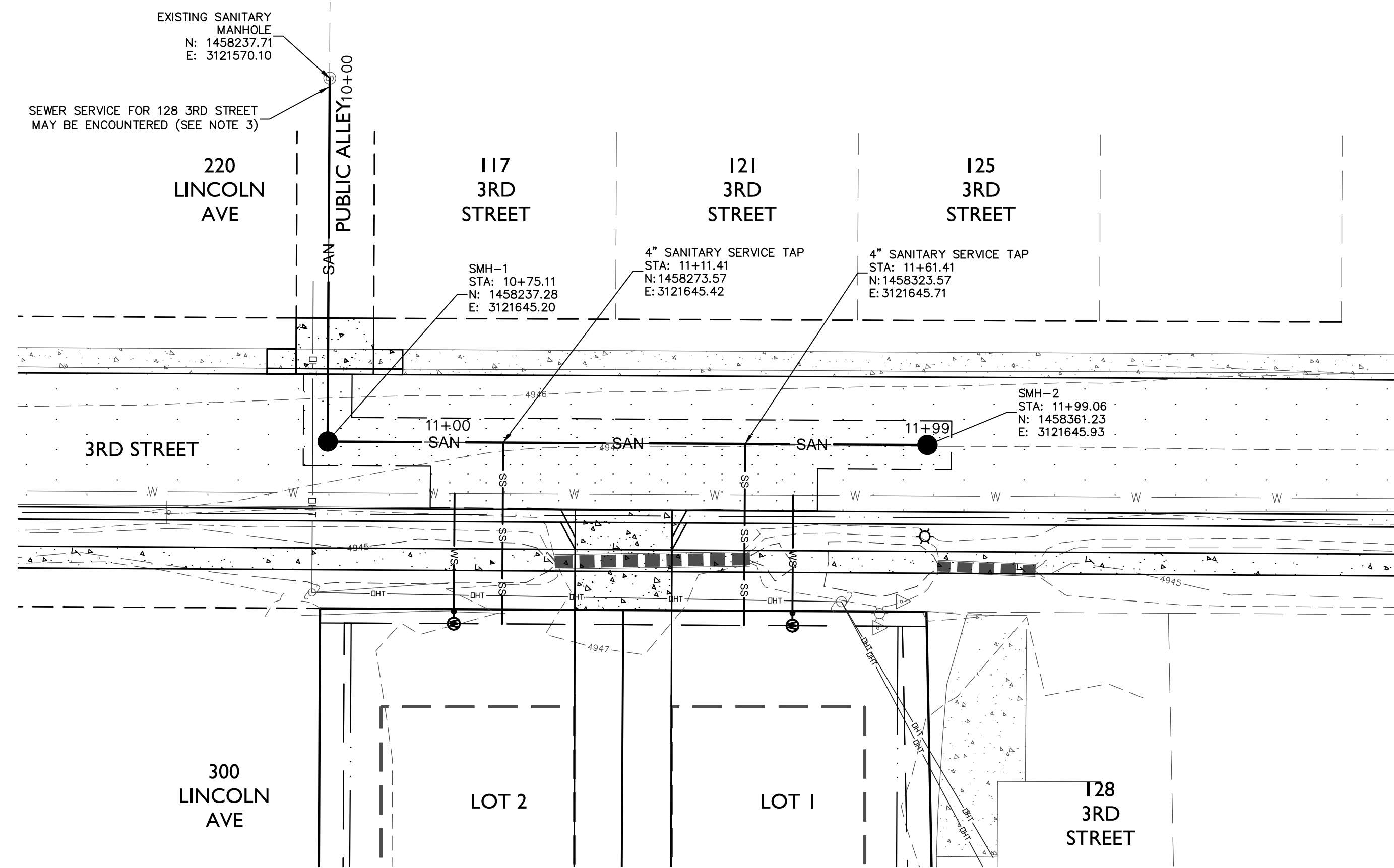
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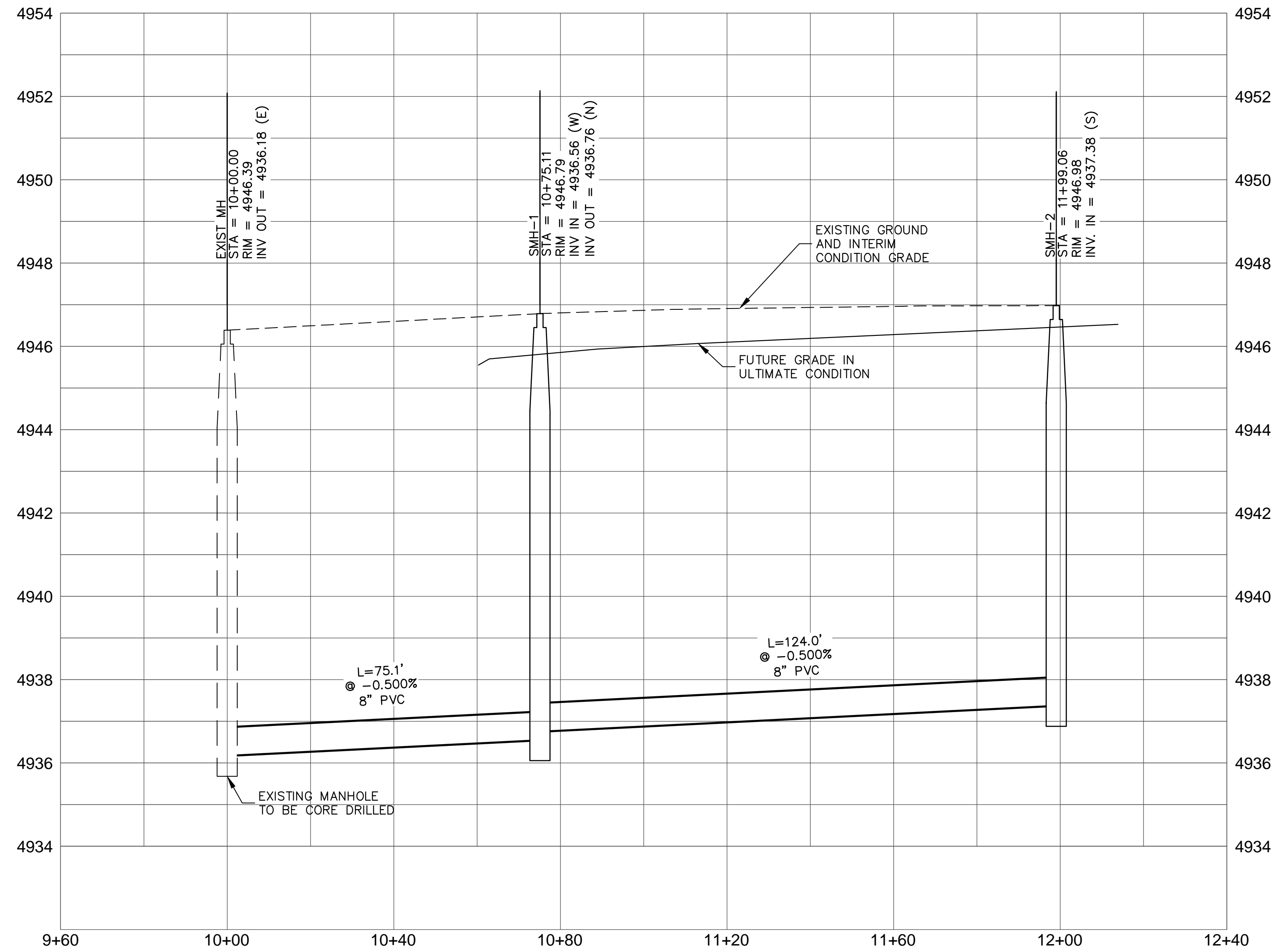
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DRAWN: DD
CHECKED: BG
PROJECT NO: 45-104
DATE: 10/29/2014

APEX ENGINEERING
908 Laporte Avenue
Fort Collins, CO 80521
(970) 219-2834

BUCKINGHAM PLACE SECOND FILING
UTILITY PLAN
INTERIM CONDITION
FORT COLLINS, COLORADO



- NOTE:**
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 2. LIMITS OF STREET CUT ARE APPROXIMATE. FINAL LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE CITY ENGINEERING INSPECTOR. ALL REPAIRS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS.
 3. THERE IS A SEWER SERVICE FOR THE RESIDENCE AT 128 3RD STREET THAT IS LIKELY TIED INTO THE MANHOLE THAT IS IN THE ALLEY. THIS SERVICE MAY BE ENCOUNTERED DURING CONSTRUCTION OF THE NEW MAIN. IF IT IS ENCOUNTERED, THAT SERVICE LINE SHOULD BE CONNECTED TO THE NEW MAIN AT THE NORTHERN LIMITS OF THE MAIN.



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**City of Fort Collins, Colorado
UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
City Engineer

CHECKED BY: _____ DATE: _____
Water/Wastewater Utility

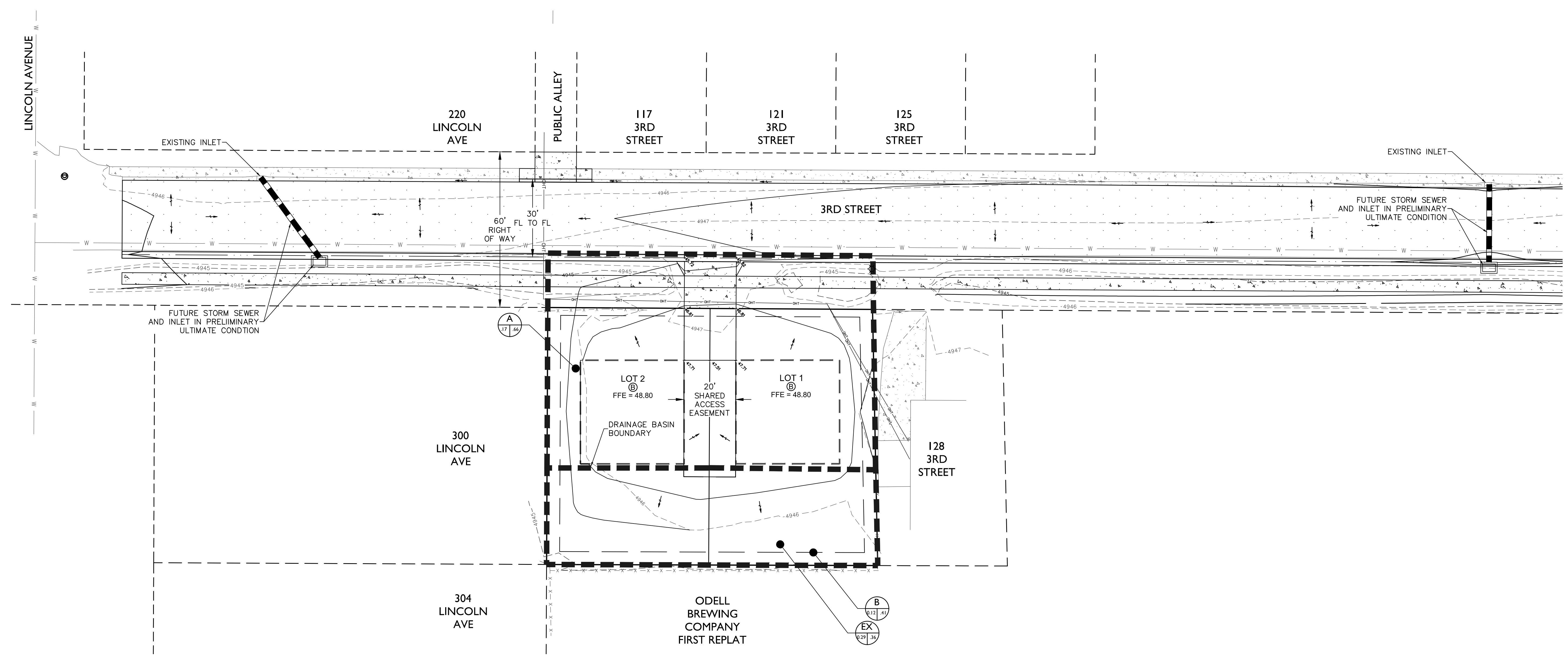
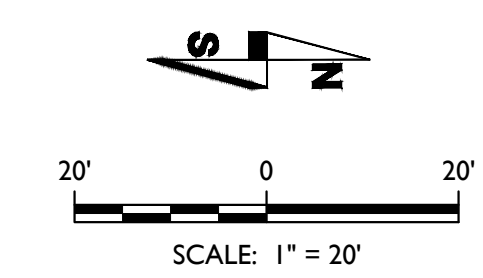
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Stormwater Utility

CHECKED BY: _____ DATE: _____
Parks & Recreation

CHECKED BY: _____ DATE: _____
Traffic Engineer

CHECKED BY: _____

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 908 Laporte Avenue Fort Collins, CO 80521 (970) 219-2834				
BUCKINGHAM PLACE SECOND FILING				
SANITARY SEWER PLAN AND PROFILE				
FORT COLLINS, COLORADO				
SHEET:				
C5 OF C11				



NOTES:

1. RUNOFF FROM ROOFS SHALL BE DIRECTED VIA ROOF GUTTERS AND DOWNSPOUTS TO THE WESTERN FRONT OF THE HOUSE.
2. PROPOSED PUBLIC IMPROVEMENTS CONSIST OF CONSTRUCTION OF THIRD STREET ALONG FRONTAGE OF SITE AND EXTENSION OF SANITARY SEWER MAIN TO THE SITE.
3. PROPOSED SITE IMPROVEMENTS CONSIST OF COY DITCH RELOCATION AND SITE GRADING FOR CONSTRUCTION OF HOMES ON EACH OF THE TWO LOTS.
4. SEE SHEET C9 FOR DETAILED PLAN AND PROFILE DATA FOR THIRD STREET IMPROVEMENTS.
5. ALL PROPOSED SLOPES WITHIN ROW SHALL HAVE A SLOPE NO STEEPER THAN 4:1.
6. ALL CURB AND GUTTER IS INFALL UNLESS OTHERWISE NOTED.
7. ALL PROPOSED GRADES ARE TO FLOWLINE OR TOP OF SURFACE, UNLESS OTHERWISE NOTED.
8. SEE SITE AND LANDSCAPE PLAN FOR PERMANENT LANDSCAPING AND SITE REVEGETATION INFORMATION.
9. THE FINISHED FLOOR ELEVATIONS SHOWN ARE THE MINIMUM ELEVATIONS REQUIRED FOR PROTECTION FROM THE 100-YEAR STORM.
10. THE PROJECT SITE IS LOCATED WITHIN THE Poudre RIVER 500-YEAR FLOODPLAIN (ZONE X, PROTECTED BY LEVEE). NO FLOODPLAIN PERMITTING IS REQUIRED SINCE SINGLE FAMILY RESIDENTIAL ARE NOT DEEMED CRITICAL FACILITIES.
11. IT IS EXPECTED THAT THE ULTIMATE 3RD STREET IMPROVEMENTS AND THE RELOCATION OF THE COY DITCH WILL NOT BE CONSTRUCTED WITH THE INITIAL DEVELOPMENT OF THIS SITE. SEE INTERIM UTILITY PLAN ON SHEET C4 AND INTERIM GRADING PLAN ON SHEET C8 FOR DETAILS ON INITIAL IMPROVEMENTS.

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**City of Fort Collins, Colorado
UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
City Engineer

CHECKED BY: _____ DATE: _____
Water/Wastewater Utility

CHECKED BY: _____ DATE: _____
Stormwater Utility

CHECKED BY: _____ DATE: _____
Parks & Recreation

CHECKED BY: _____ DATE: _____
Traffic Engineer

CHECKED BY: _____

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PRELIMINARY

NOT FOR CONSTRUCTION

DESIGNED: BG	PROJECT NO: 45-104
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APEX ENGINEERING
 908 Laporte Avenue
 Fort Collins, CO 80521
 (970) 219-2834

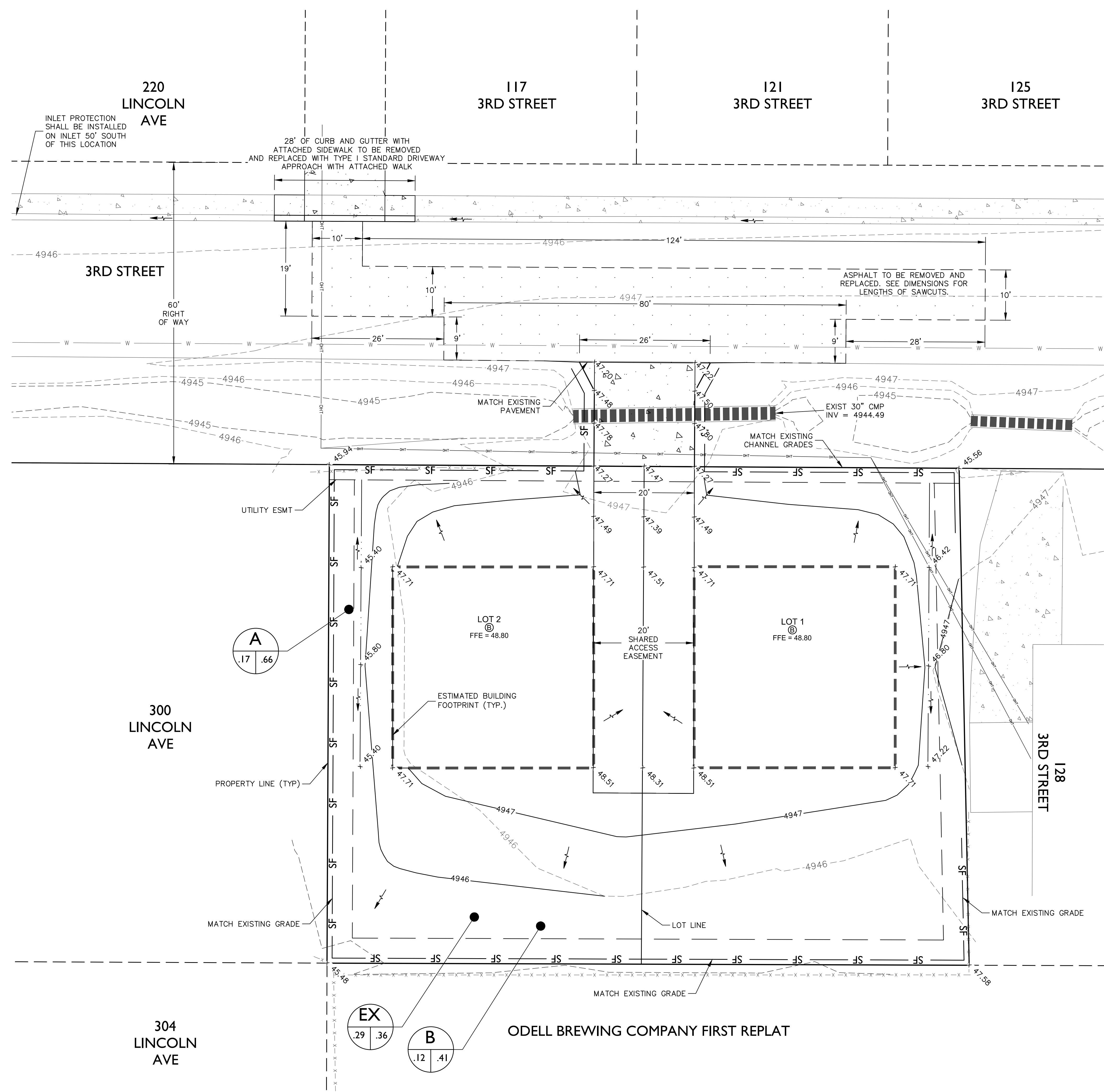
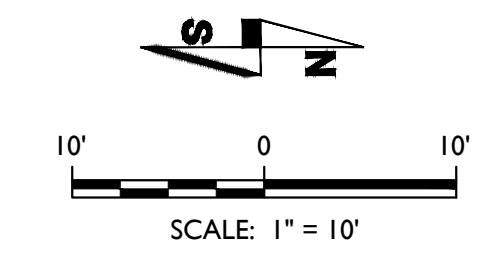
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GRADING AND DRAINAGE PLAN

ULTIMATE CONDITION

FORT COLLINS, COLORADO

SHEET: **C6** OF **C11**



GRADING NOTES:

1. RUNOFF FROM ROOFS SHALL BE DIRECTED VIA ROOF GUTTERS AND DOWNSPOUTS TO THE WESTERN FRONT OF THE HOUSE.
2. PROPOSED PUBLIC IMPROVEMENTS CONSIST OF CONSTRUCTION OF THIRD STREET ALONG FRONTAGE OF SITE AND EXTENSION OF SANITARY SEWER MAIN TO THE SITE.
3. PROPOSED SITE IMPROVEMENTS CONSIST OF COY DITCH RELOCATION AND SITE GRADING FOR CONSTRUCTION OF HOMES ON EACH OF THE TWO LOTS.
4. SEE SHEET C9 FOR DETAILED PLAN AND PROFILE DATA FOR THIRD STREET IMPROVEMENTS.
5. ALL PROPOSED SLOPES WITHIN ROW SHALL HAVE A SLOPE NO STEEPER THAN 4:1.
6. ALL CURB AND GUTTER IS INFALL UNLESS OTHERWISE NOTED.
7. ALL PROPOSED GRADES ARE FLOWLINE OR TOP OF SURFACE, UNLESS OTHERWISE NOTED.
8. LIMITS OF STREET CUT ARE APPROXIMATE. FINAL LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE CITY ENGINEERING INSPECTOR. ALL REPAIRS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS.
9. THE FINISHED FLOOR ELEVATIONS SHOWN ARE THE MINIMUM ELEVATIONS REQUIRED FOR PROTECTION FROM THE 100-YEAR STORM.
10. THE PROJECT SITE IS LOCATED WITHIN THE POUDBRE RIVER 500-YEAR FLOODPLAIN (ZONE X, PROTECTED BY LEVEE). NO FLOODPLAIN PERMITTING IS REQUIRED SINCE SINGLE FAMILY RESIDENTIAL ARE NOT DEEMED CRITICAL FACILITIES.

EROSION CONTROL NOTES:

1. SEE SITE AND LANDSCAPE PLAN FOR PERMANENT LANDSCAPING AND SITE REVEGETATION INFORMATION.
2. AREAS OF SOIL TO REMAIN BARE FOR MORE THAN 30 DAYS ARE TO BE RESEED WITH A TEMPORARY SEED MIX, AS DEPICTED BELOW. ANNUAL RYEGRASS IS TO BE DRILLED AT 20 LBS SEED PER ACRE AND HYBRID SUDAN GRASS IS TO BE DRILLED AT 15 LBS SEED PER ACRE.

SEEDING SEASON	SEED TYPE
JAN - FEB	DO NOT SEED
MAR - MAY 15	ANNUAL RYEGRASS
MAY 16 - MAY 31	HYBRID SUDAN GRASS
JUNE - JULY	HYBRID SUDAN GRASS
AUG - SEP	ANNUAL RYEGRASS
OCT - DEC	DO NOT SEED
3. EXISTING ON-SITE CONTOURS ARE AT A 1-FOOT INTERVAL.
4. ALL DISTURBED AREAS WILL BE MULCHED IMMEDIATELY AFTER SEEDING. GRASS HAY OR STRAW WILL BE ANCHORED TO THE SOIL BY A CRIMPER THAT WILL CRIMP THE FIBER FOUR INCHES OR MORE INTO THE SOIL. AT LEAST 50% OF THE FIBER SHALL BE 10 INCHES OR MORE IN LENGTH. ALTERNATIVELY, THE HAY OR STRAW MAY BE ANCHORED BY MANUFACTURED MULCH NETTING INSTALLED ACCORDING TO 5. THE FOLLOWING NATIVE GRASS SEED MIX, OR AN APPROVED EQUIVALENT, SHALL BE USED IN AREAS WHERE PERMANENT REVEGETATION IS REQUIRED:

SPECIES	% OF MIX	PLS/acre
WESTERN WHEATGRASS	30	8.0
BLUE GRAMA	30	1.5
SIDE OATS GRAMA	30	4.5
BUFFALOGRASS	10	3.0
5. A VEHICLE TRACKING CONTROL PAD SHALL BE INSTALLED WHEN NEEDED FOR CONSTRUCTION EQUIPMENT, INCLUDING BUT NOT LIMITED TO PERSONAL VEHICLES EXITING EXISTING ROADWAYS. NO EARTHEN MATERIALS, I.E. STONE, DIRT, ETC. SHALL BE PLACED IN THE CURB & GUTTER OR ROADWAY AS A RAMP TO ACCESS TEMPORARY STOCKPILES, STAGING AREAS, CONSTRUCTION MATERIALS, CONCRETE WASHOUT AREAS, AND/OR BUILDING SITES.
6. THE EXISTING SITE IS UNDEVELOPED WITH APPROXIMATELY 90% VEGETATIVE COVER. THE VEGETATION CONSISTS MAINLY OF NATIVE GRASSES AND TREES.
7. THE SITE IS IN THE DRY CREEK MASTER DRAINAGE BASIN. THE STORM DRAINAGE RUNOFF FROM THIS SITE WILL DRAIN TO THE EAST AND WEST OF THIS SITE. IT WILL EVENTUALLY ENTER THE CITY OF FORT COLLINS STORM SEWER SYSTEM ON LINCOLN STREET IMMEDIATELY SOUTH OF THIS SITE.
8. THE MOST LIKELY POLLUTANTS FROM THE CONSTRUCTION WILL INCLUDE OIL AND/OR FUEL LEAKS FROM THE HEAVY EQUIPMENT ON THE SITE AND CONCRETE FROM THE FOUNDATION AND THE SLAB CONSTRUCTION.
9. TRASH FROM THE CONSTRUCTION WILL BE DEPOSITED IN TRASH BINS/DUMPSTERS AND HAULED TO THE LARIMER COUNTY LANDFILL.
10. ACCORDING TO THE USGS SOIL SURVEY MAPS OF THE AREA, THE HYDROLOGIC SOIL GROUP FOR THIS SITE IS TYPE C.
11. THE SITE WILL BE LANDSCAPED TO STABILIZATION.
12. BASED ON THE SIZE OF THE SITE AND THE AMOUNT OF DISTURBANCE THE MINIMUM \$1,500.00 EROSION CONTROL ESCROW SHOULD BE SUFFICIENT.
13. SOIL AMENDMENTS SHALL BE INCORPORATED IN ALL LANDSCAPE AREAS TO A DEPTH OF 6 INCHES AT A RATE OF 3 CUBIC YARDS PER 1000 SQUARE FEET OF AREA UNLESS 4" OF LOOSE TOPSOIL HAVE BEEN IMPORTED ONTO THE SITE OVER 4" OF LOOSENED SUBGRADE SOILS. REFER TO CITY OF FORT COLLINS CODE SECTIONS 12-130 THROUGH 12-132.
14. SILT FENCE OR STRAW WATTLES MAY UTILIZED AROUND THE PERIMETER OF THE SITE AT THE DISCRETION OF THE CONTRACTOR.
14. SEE SHEET C2 FOR ADDITIONAL SEDIMENT AND EROSION CONTROL NOTES.

**City of Fort Collins, Colorado
UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
City Engineer

CHECKED BY: _____ DATE: _____
Water/Wastewater Utility

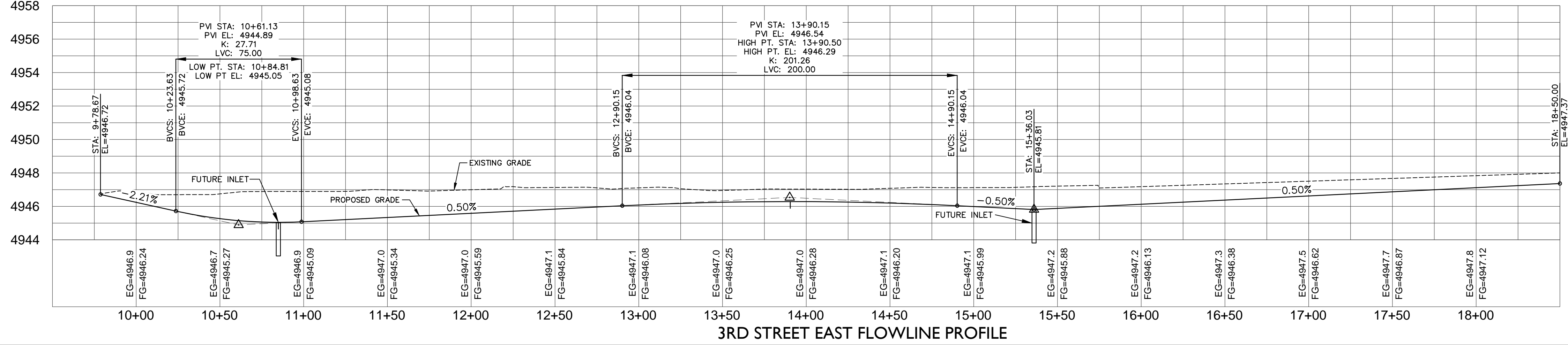
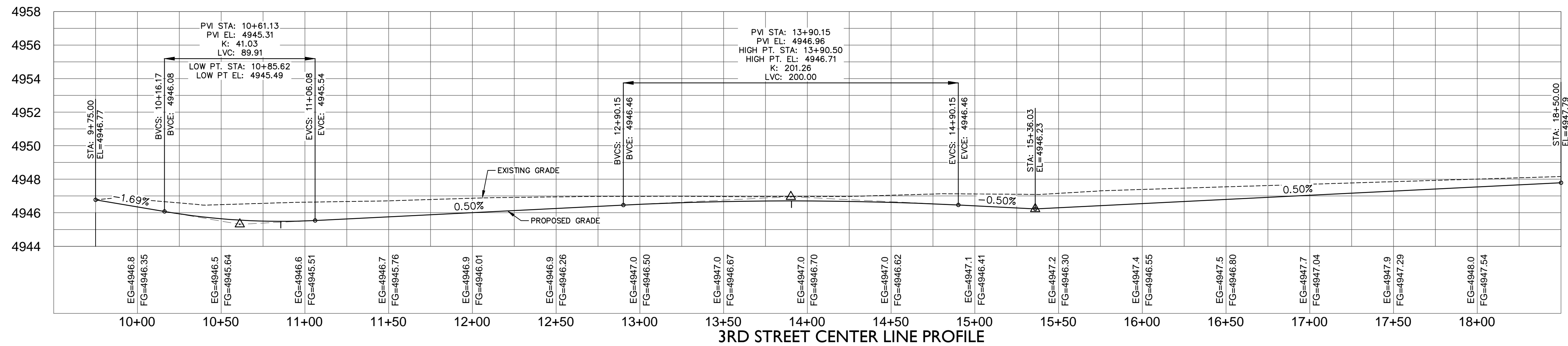
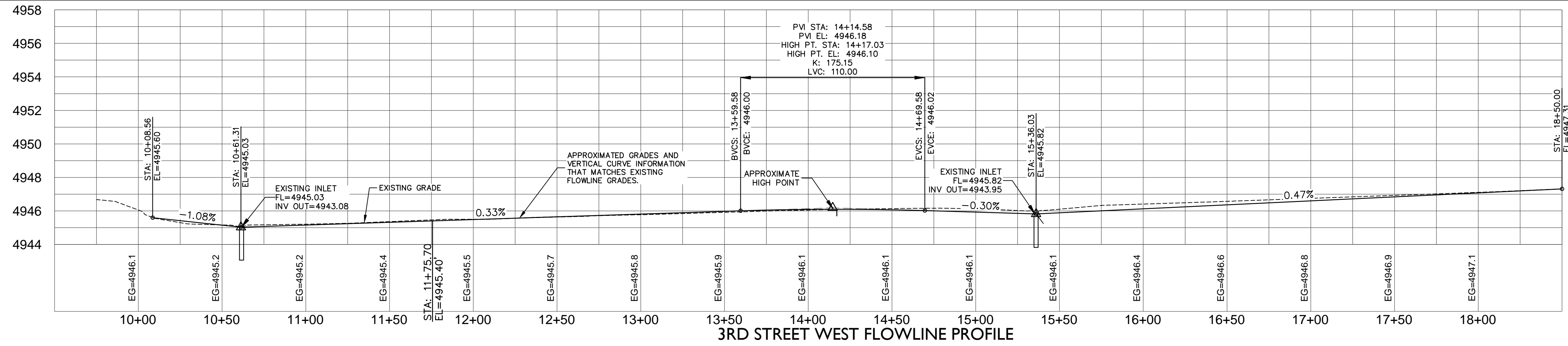
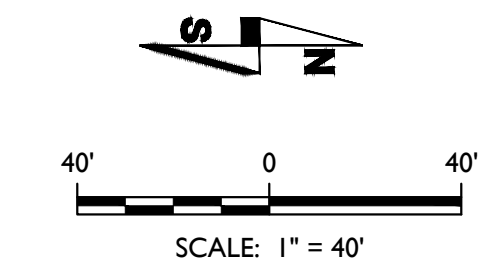
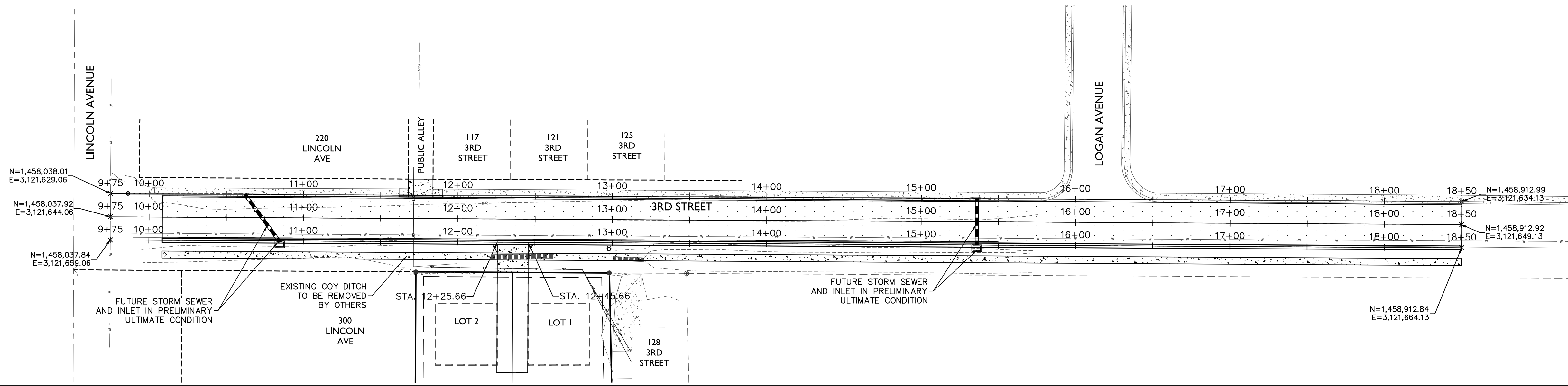
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Stormwater Utility

CHECKED BY: _____ DATE: _____
Parks & Recreation

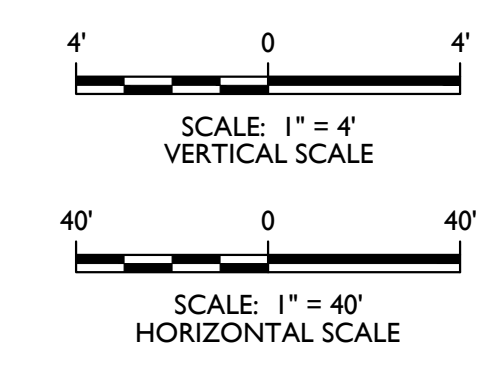
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Traffic Engineer

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APEX ENGINEERING 908 Laporte Avenue Fort Collins, CO 80521 (970) 219-2834									
BUCKINGHAM PLACE SECOND FILING GRADING AND EROSION CONTROL PLAN INTERIM CONDITION FORT COLLINS, COLORADO									
SHEET: C7 OF C11									



- NOTES:**
1. ALL PROPOSED SLOPES WITHIN ROW SHALL HAVE A SLOPE NO STEEPER THAN 4:1.
 2. ALL STREET CROSS SLOPES SHALL BE 1.5% MIN AND 4.0% MAX.
 3. ALL CURB AND GUTTER IS INFALL UNLESS OTHERWISE NOTED.
 4. ALL PROPOSED GRADES ARE FLOWLINE OR TOP OF SURFACE, UNLESS OTHERWISE NOTED.
 5. STANDARDS IN RELATION TO ALLOWABLE CROSS-SLOPES FOR RECONSTRUCTION OF PAVEMENT. PROPOSED SPOT ELEVATIONS SHOWN FOR EXISTING PAVEMENT ARE APPROXIMATE (FROM TOPOGRAPHIC SURVEY) AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO NEW PAVEMENT IMPROVEMENTS.
 6. LIMITS OF STREET CUT ARE APPROXIMATE. FINAL LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE CITY ENGINEERING INSPECTOR. ALL REPAIRS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS.
 7. THIS PLAN AND PROFILE OF 3RD STREET ADJACENT TO THE SITE IS A PRELIMINARY DESIGN AND WILL NEED TO BE TAKEN TO FINAL DESIGN PRIOR TO ANY CONSTRUCTION.



These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City Engineer, or the City of Fort Collins for accuracy and corrections of the calculations. Furthermore, the review does not imply that the quantities of the items on the plans are the final quantities required. The review shall not be construed in any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

**City of Fort Collins, Colorado
UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
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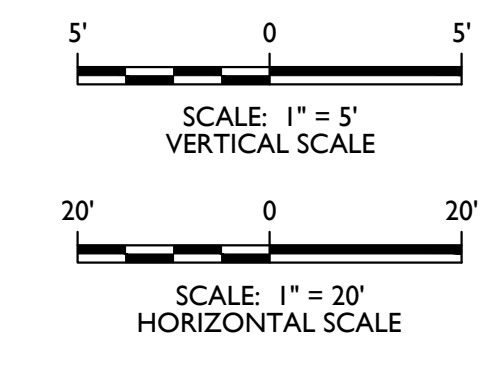
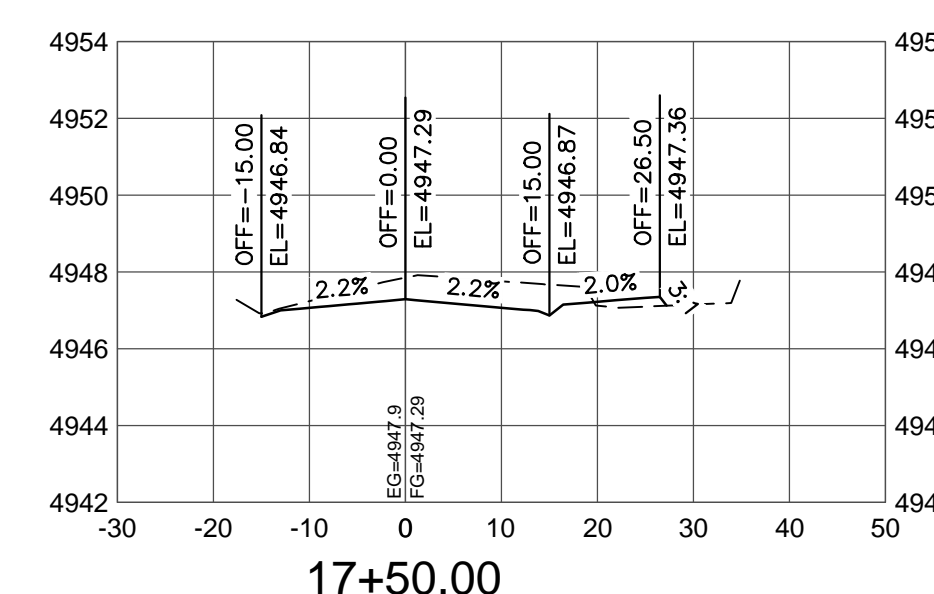
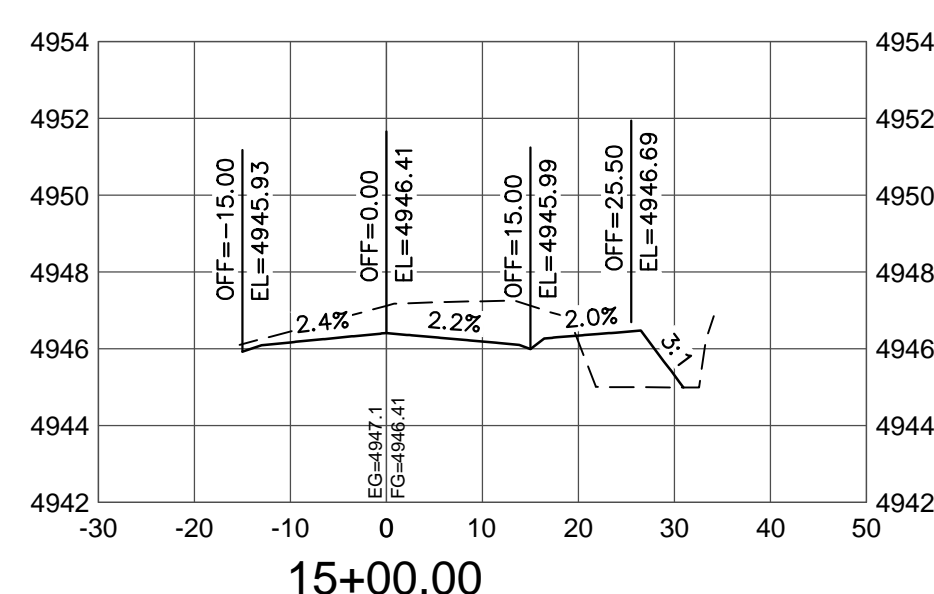
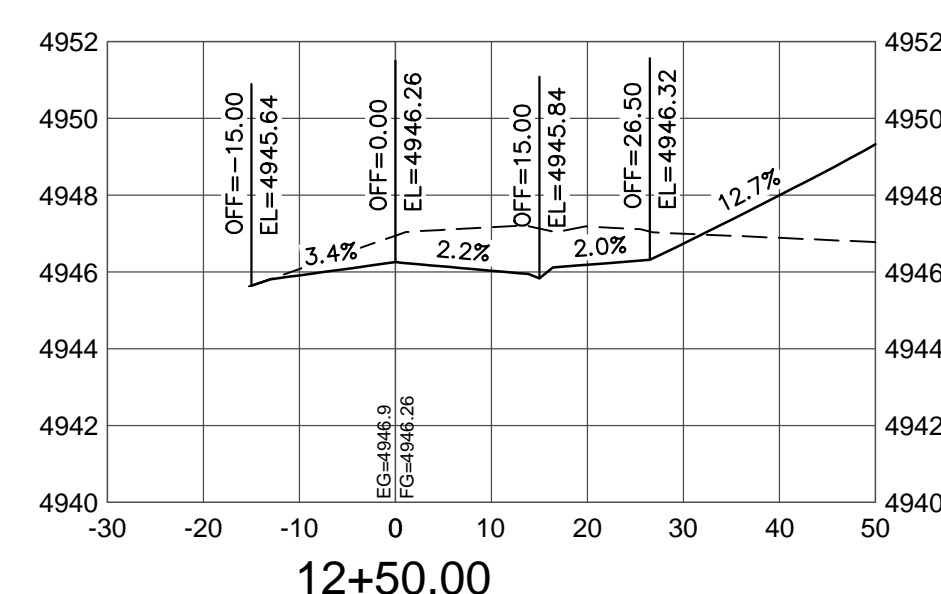
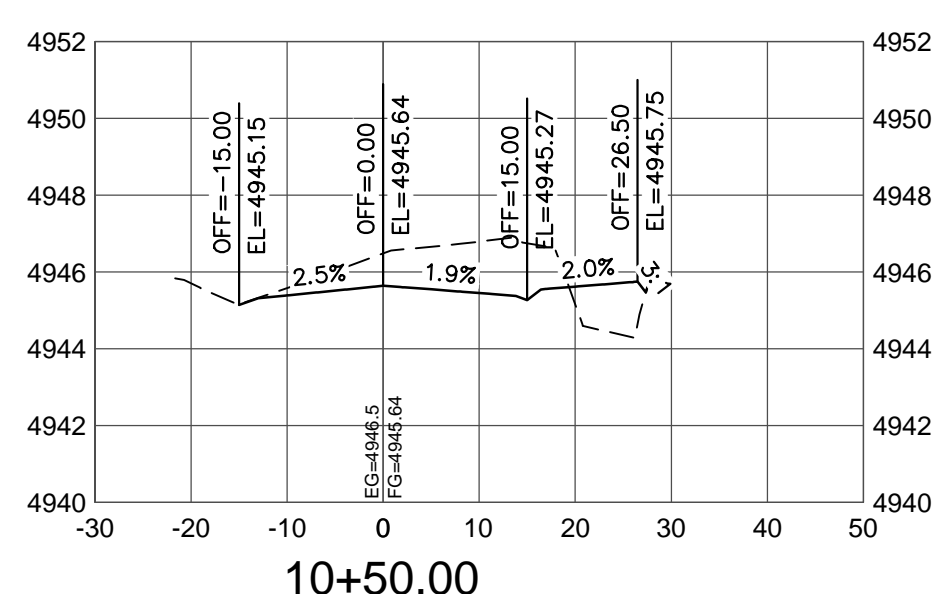
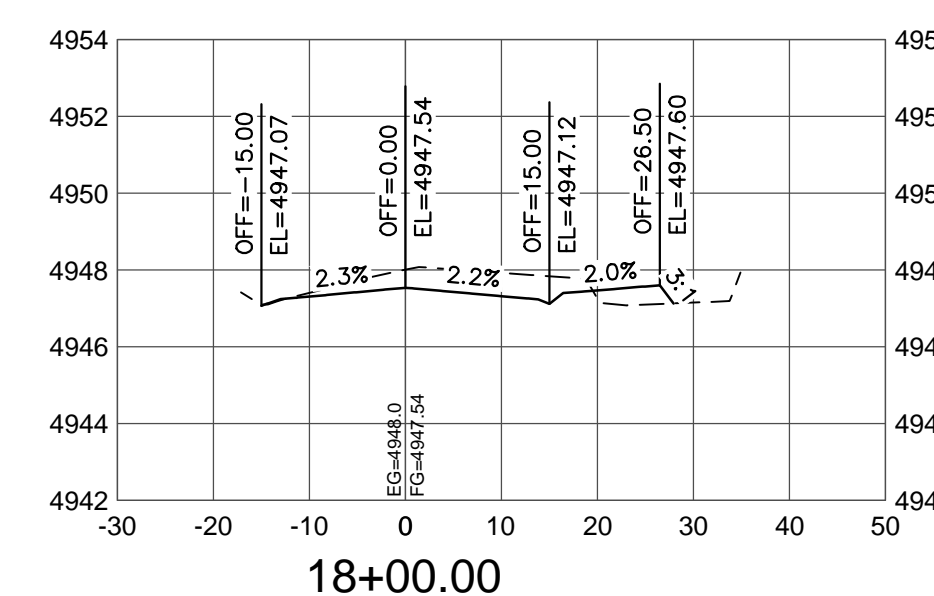
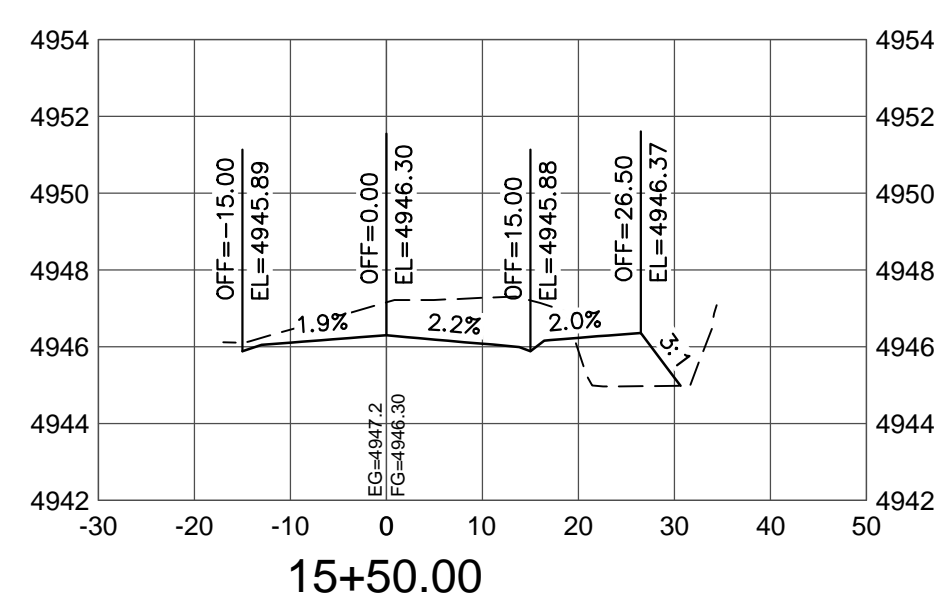
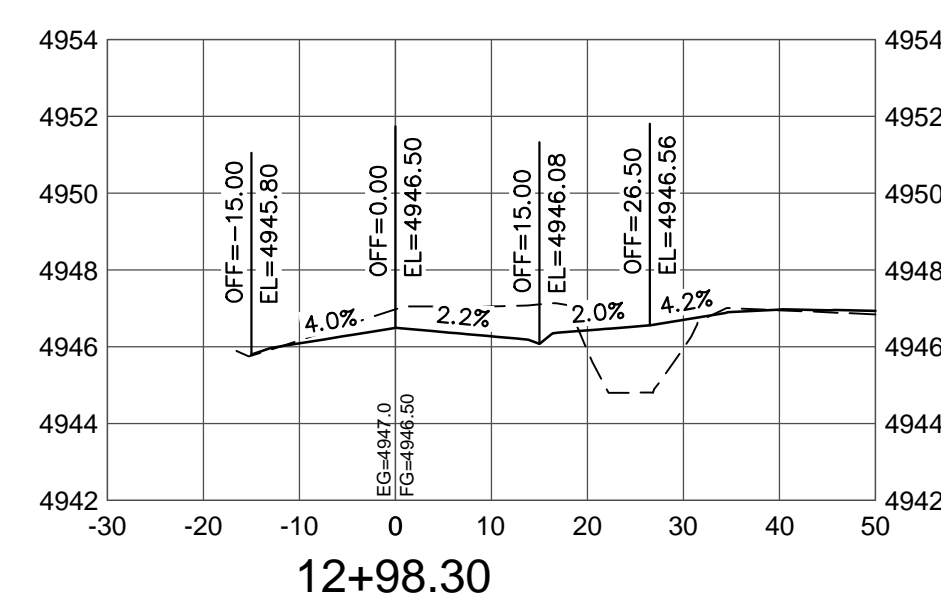
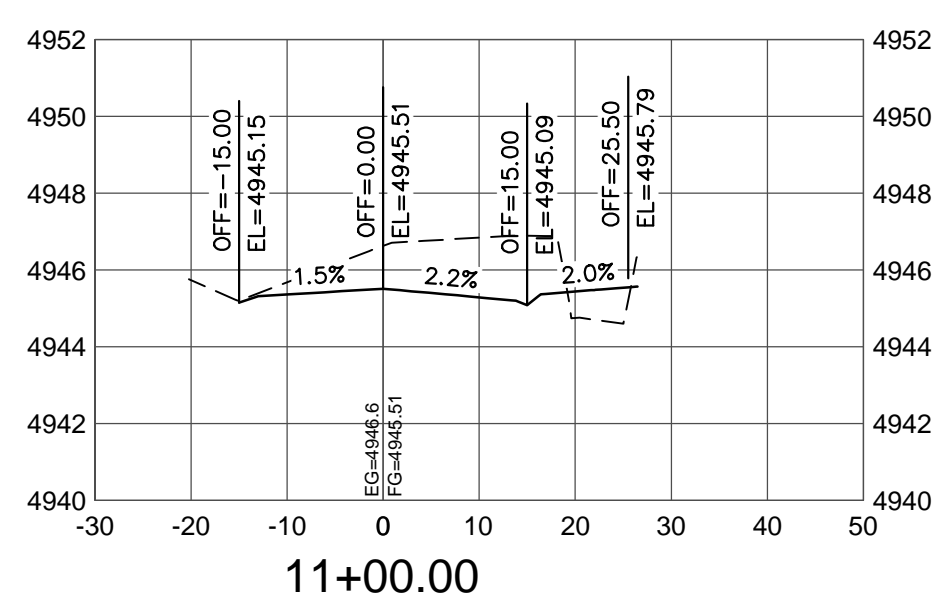
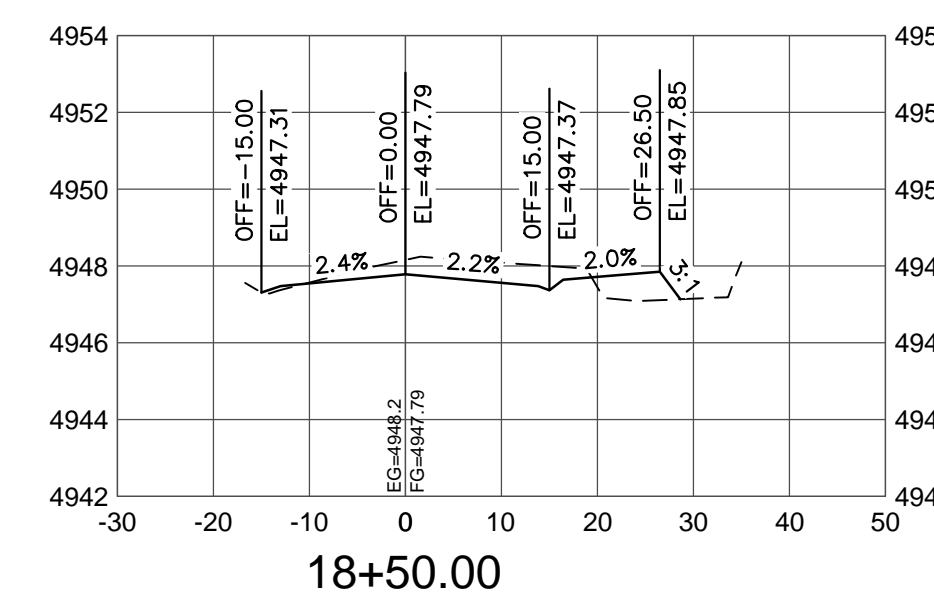
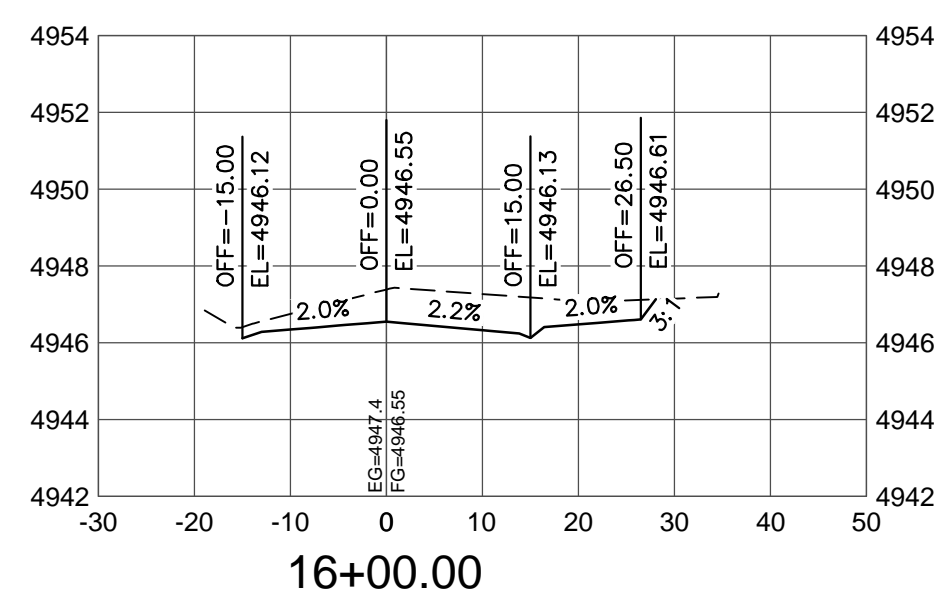
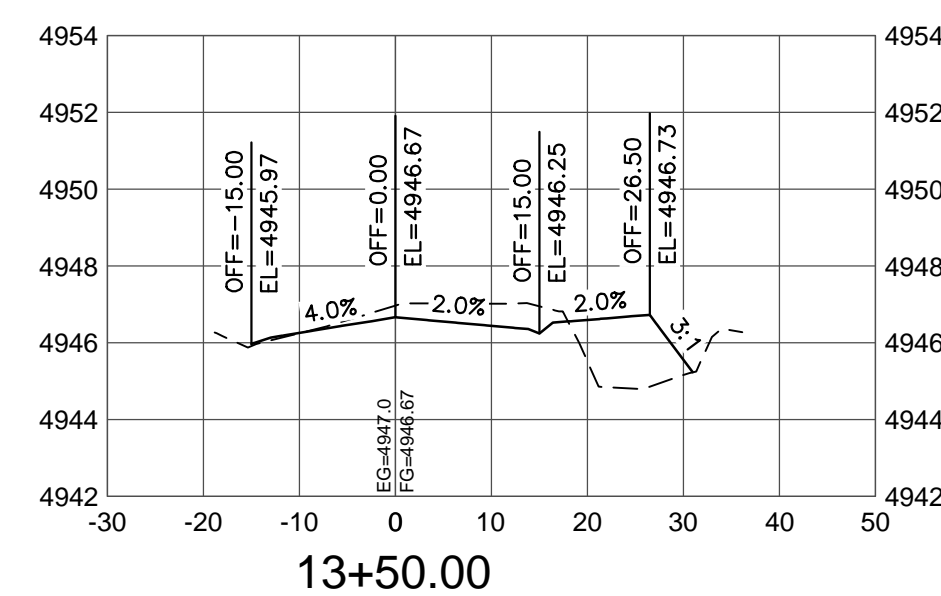
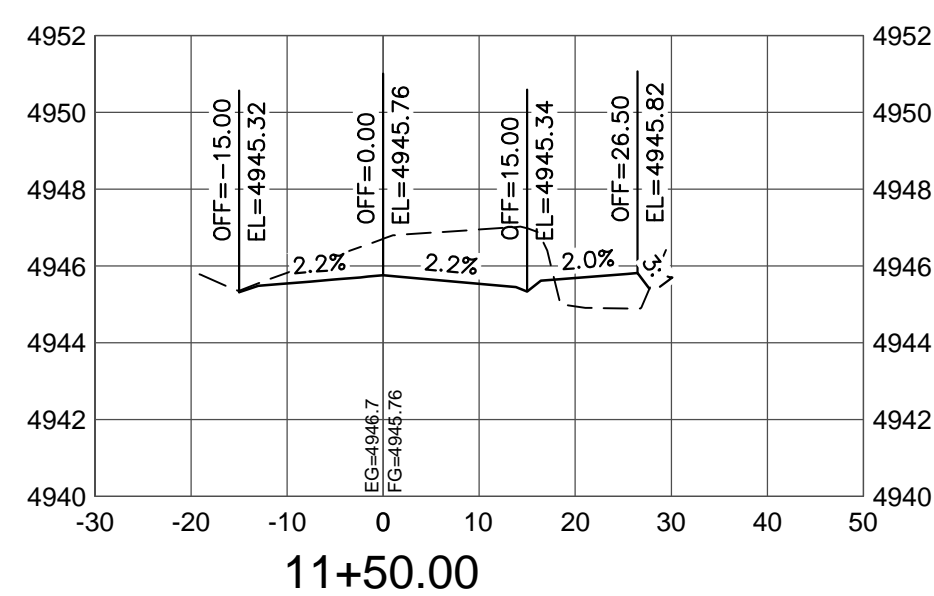
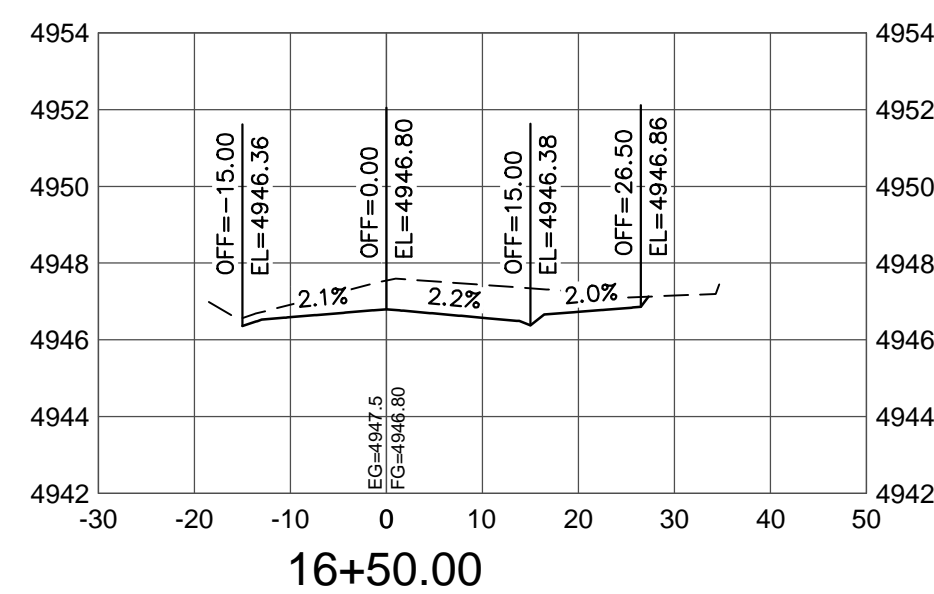
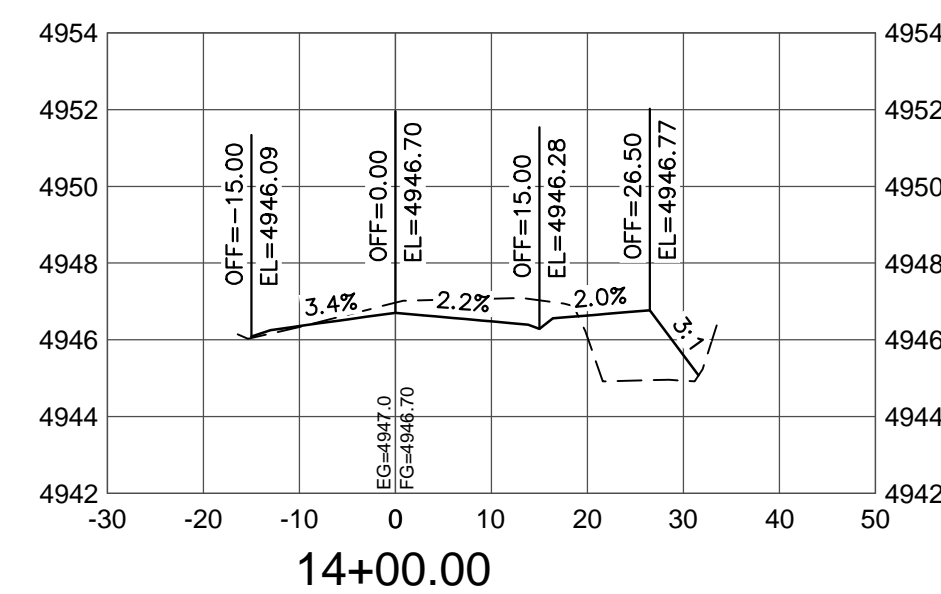
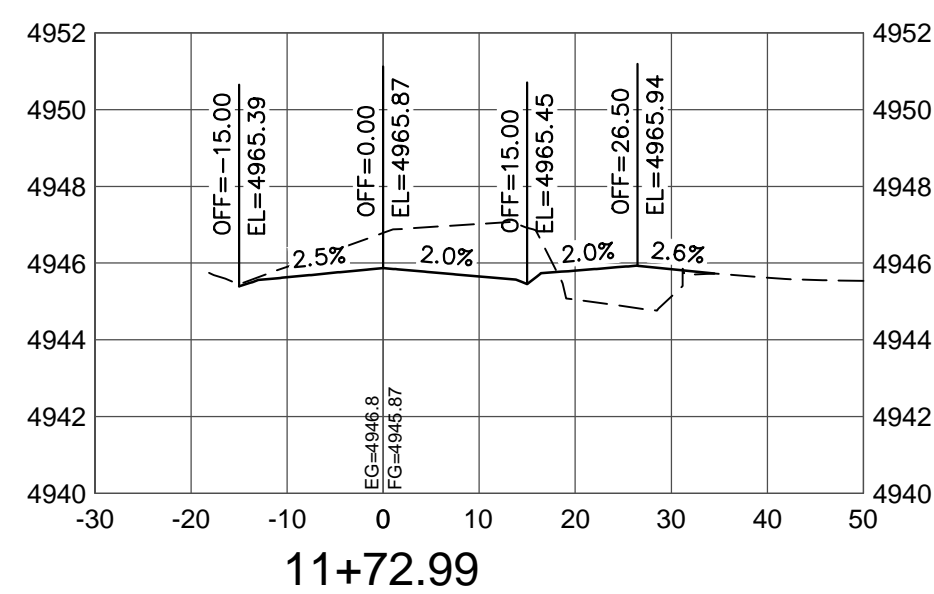
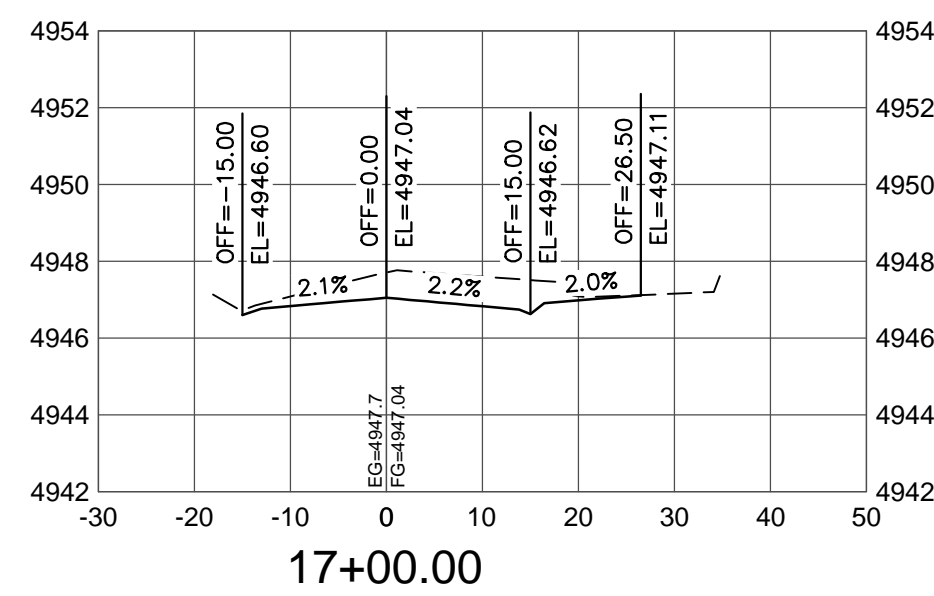
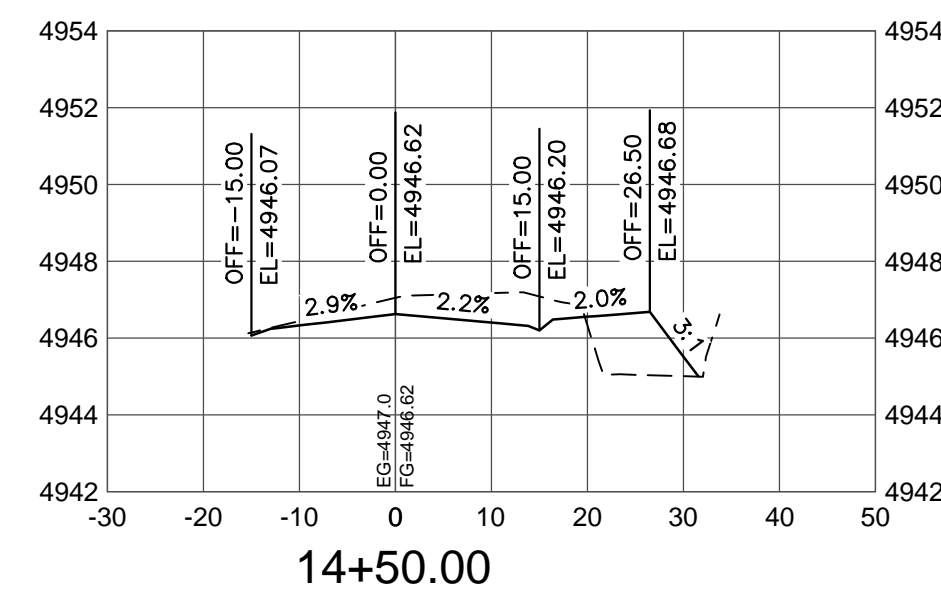
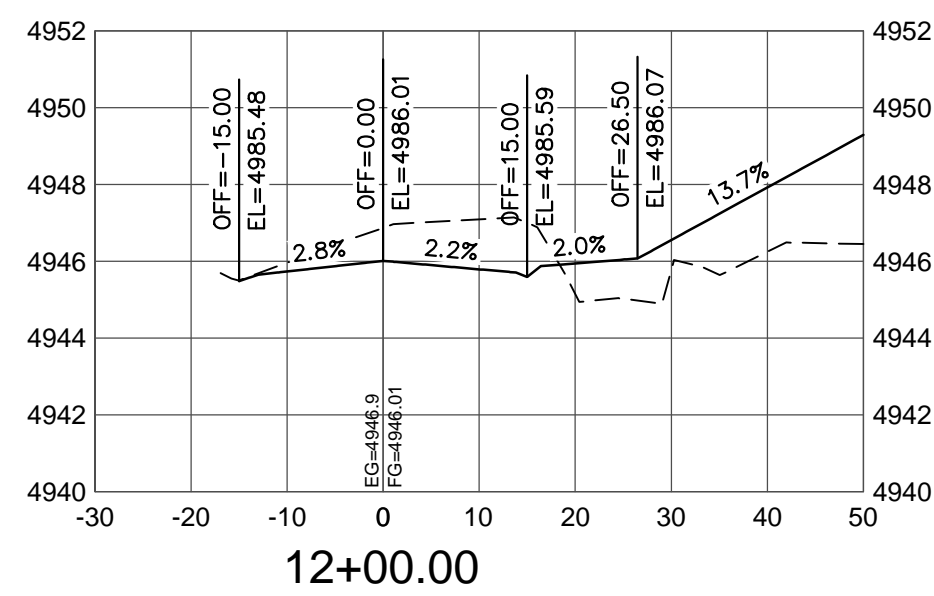
DESIGNED: **BE**
 DRAWN: **DD**
 CHECKED: **IG**

PROJECT NO: 45-104
 DATE: 10/29/2014

PRELIMINARY **NOT FOR CONSTRUCTION**



BUCKINGHAM PLACE SECOND FILING
3RD STREET PLAN AND PROFILE
ULTIMATE CONDITION
 FORT COLLINS, COLORADO



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**City of Fort Collins, Colorado
UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
City Engineer

CHECKED BY: _____ DATE: _____
Water/Wastewater Utility

CHECKED BY: _____ DATE: _____
Stormwater Utility

CHECKED BY: _____ DATE: _____
Parks & Recreation

CHECKED BY: _____ DATE: _____
Traffic Engineer

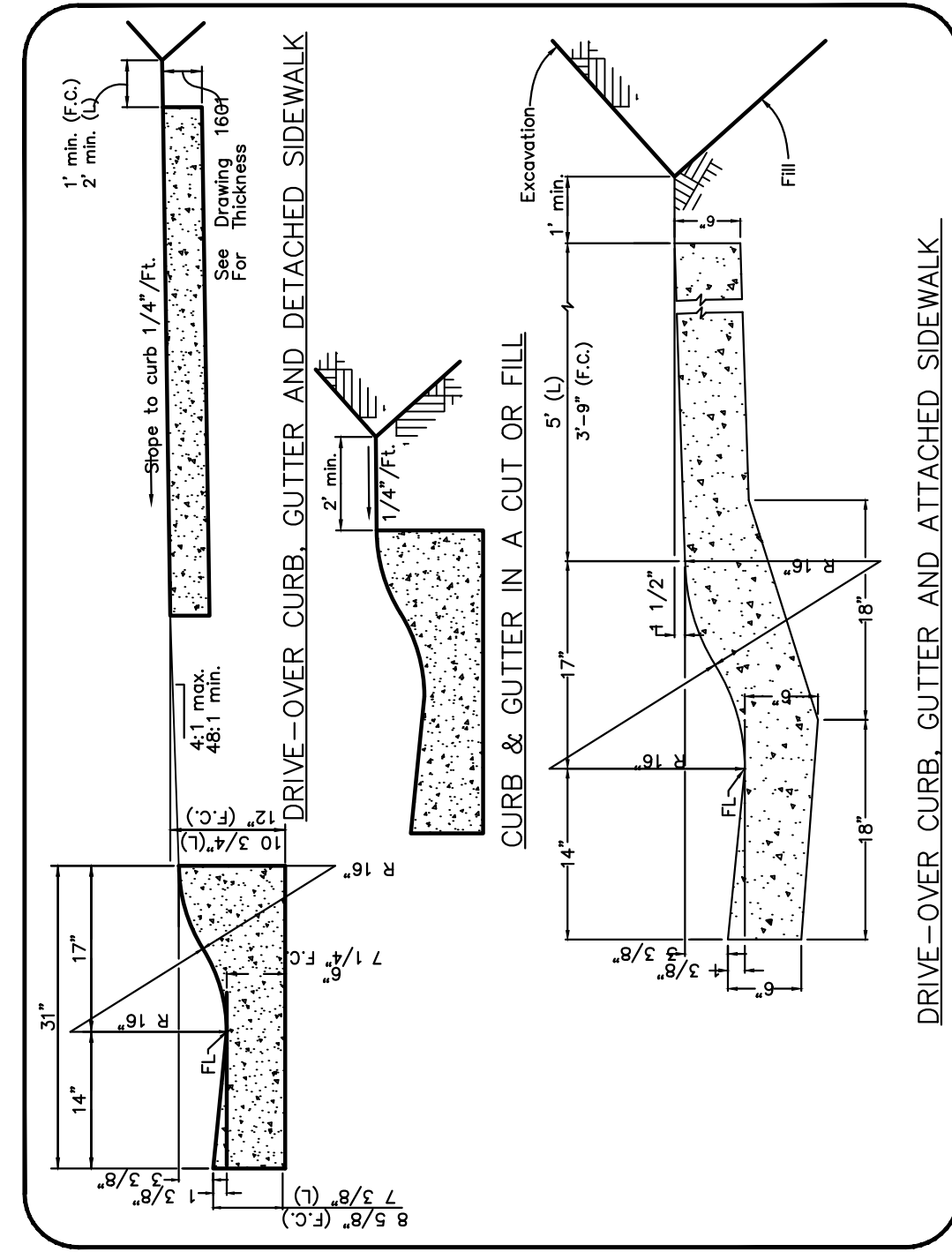
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DESIGNED: **BS**
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CHECKED: **BC**
PROJECT NO.: 45-104
DATE: 10/29/2014

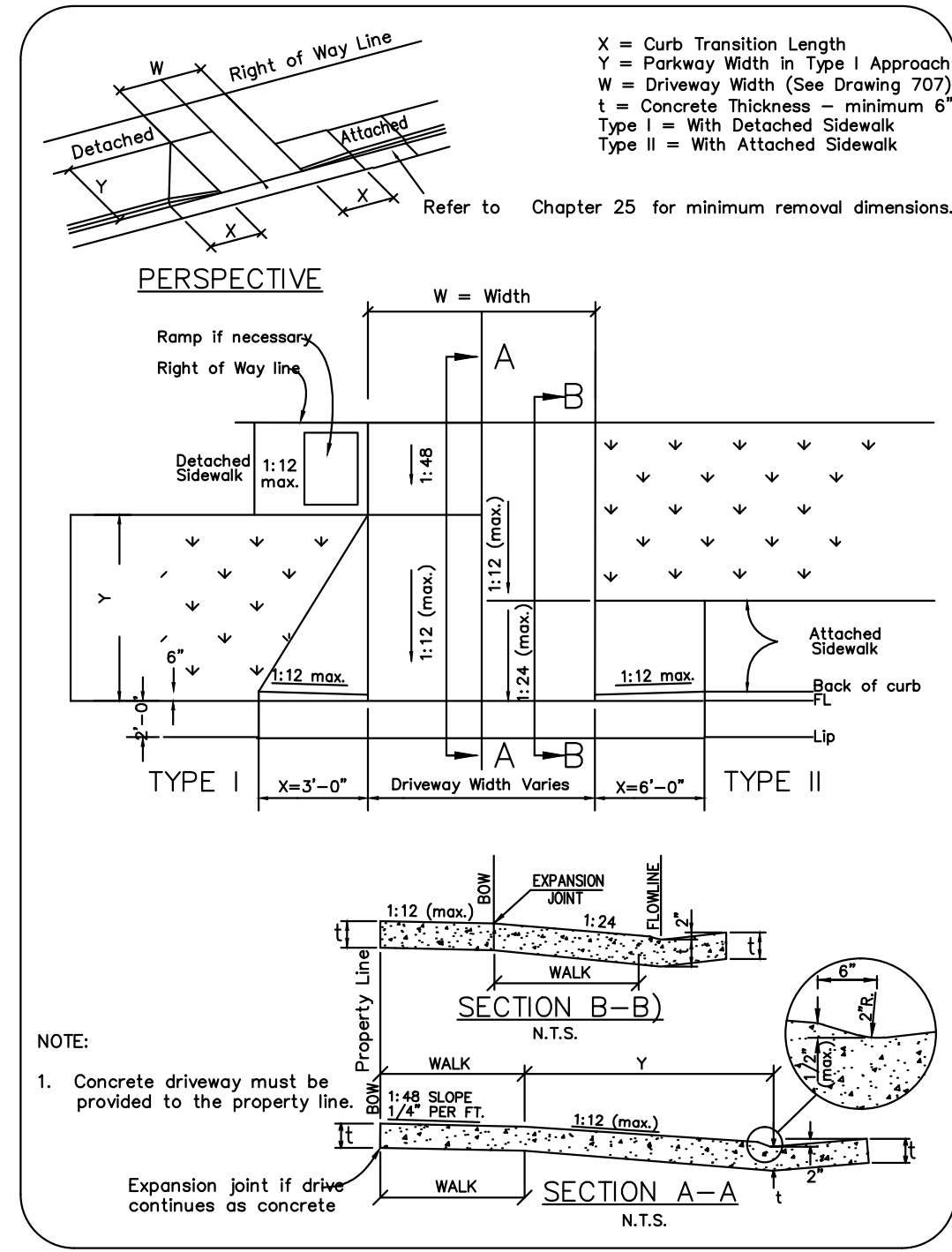
PRELIMINARY
NOT FOR CONSTRUCTION

BUCKINGHAM PLACE SECOND FILING
3RD STREET CROSS SECTIONS
ULTIMATE CONDITION
FORT COLLINS, COLORADO

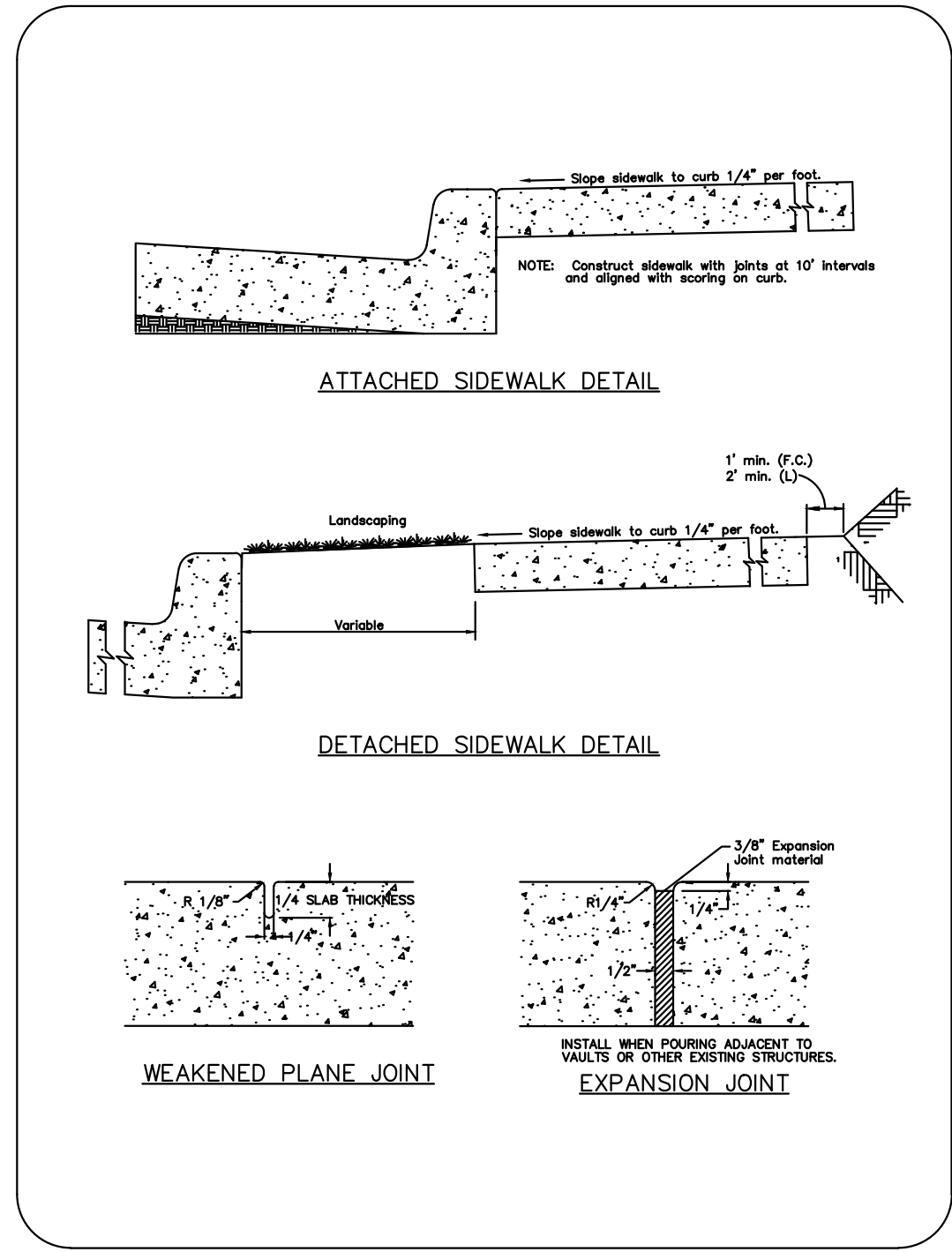
SHEET: **C9** OF **C11**



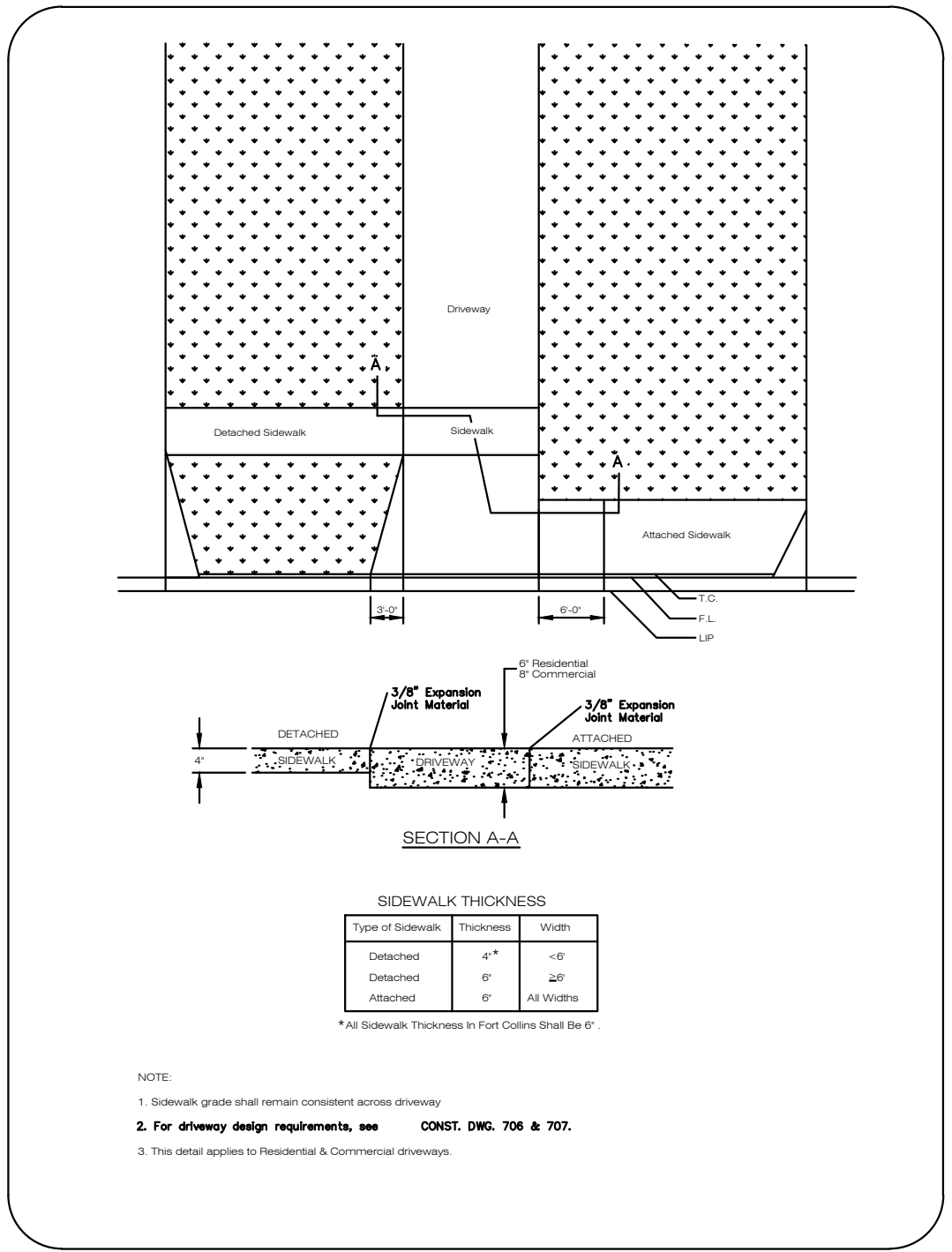
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 LARIMER COUNTY URBAN AREA STREET STANDARDS CONSTRUCTION DRAWINGS REVISION NO: 1 DRAWING DATE: 03/01/02 702



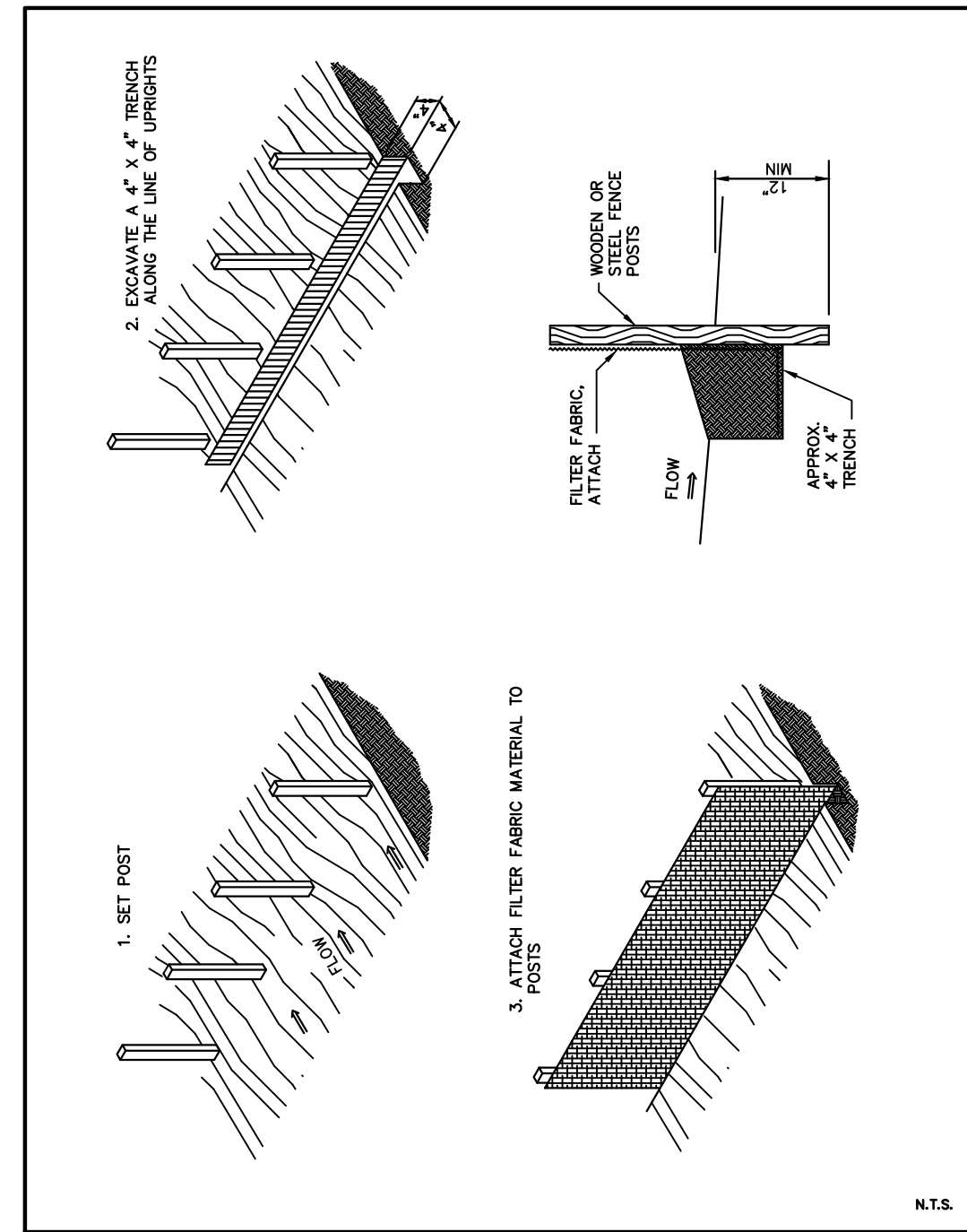
STANDARD DRIVEWAY APPROACH (TYPES I & II)
 LARIMER COUNTY URBAN AREA STREET STANDARDS CONSTRUCTION DRAWINGS REVISION NO: 1 DRAWING DATE: 03/01/02 706



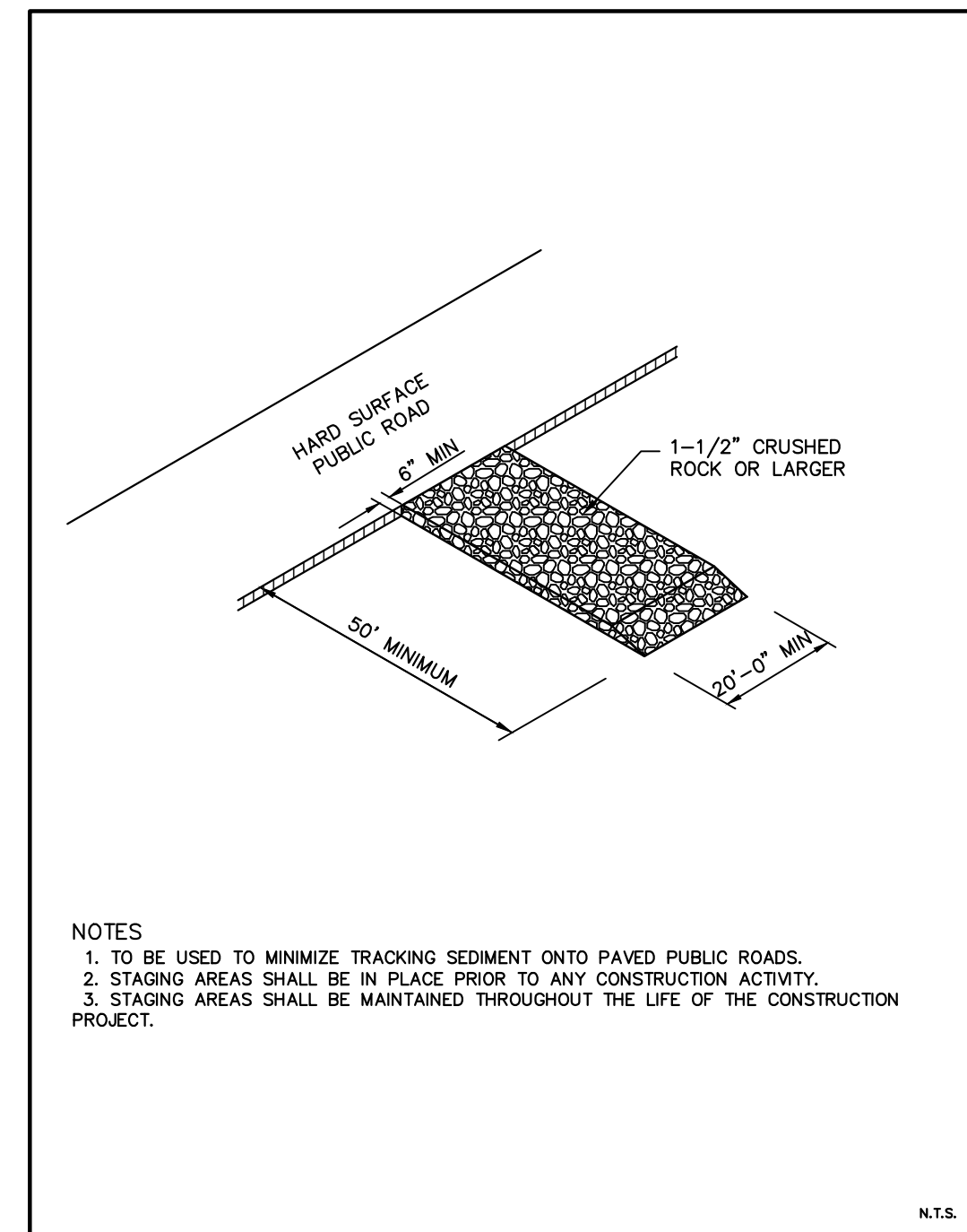
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 LARIMER COUNTY URBAN AREA STREET STANDARDS CONSTRUCTION DRAWINGS REVISION NO: 1 DRAWING DATE: 03/02/01 1602



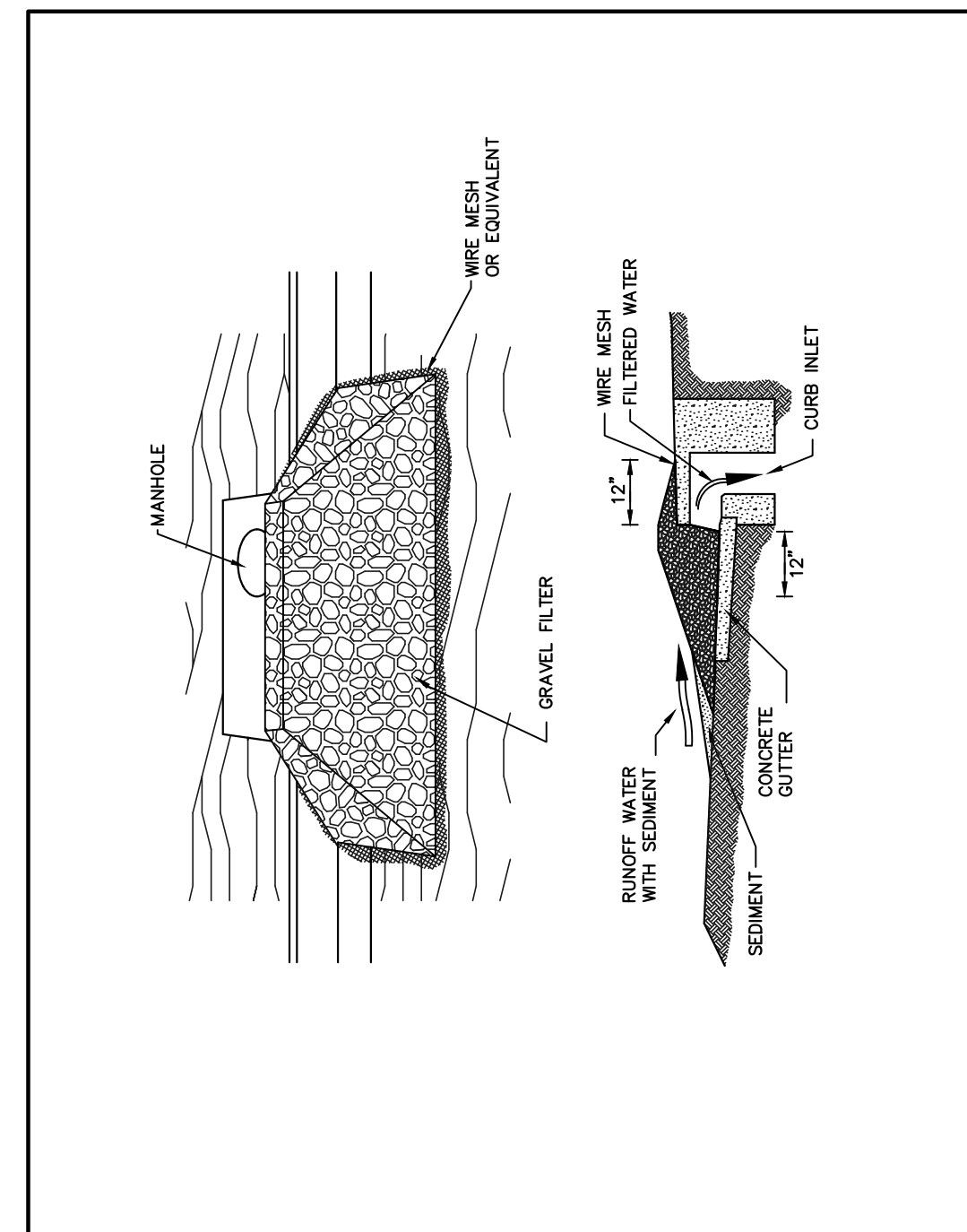
STANDARD SIDEWALK
 LARIMER COUNTY URBAN AREA STREET STANDARDS CONSTRUCTION DRAWINGS REVISION NO: DRAWING DATE: 08/07/00 1601



APEX ENGINEERING DETAIL NO. ECI
 SILT FENCE EROSION BARRIER



APEX ENGINEERING DETAIL NO. EC3
 VEHICLE TRACKING CONTROL



APEX ENGINEERING DETAIL NO. EC4
 GRAVEL FILTER INLET PROTECTION

**City of Fort Collins, Colorado
 UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
 City Engineer

CHECKED BY: _____ DATE: _____
 Water/Wastewater Utility

CHECKED BY: _____ DATE: _____
 Stormwater Utility

CHECKED BY: _____ DATE: _____
 Parks & Recreation

CHECKED BY: _____ DATE: _____
 Traffic Engineer

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BUCKINGHAM PLACE SECOND FILING

CONSTRUCTION DETAILS - STREET AND SITE

FORT COLLINS, COLORADO

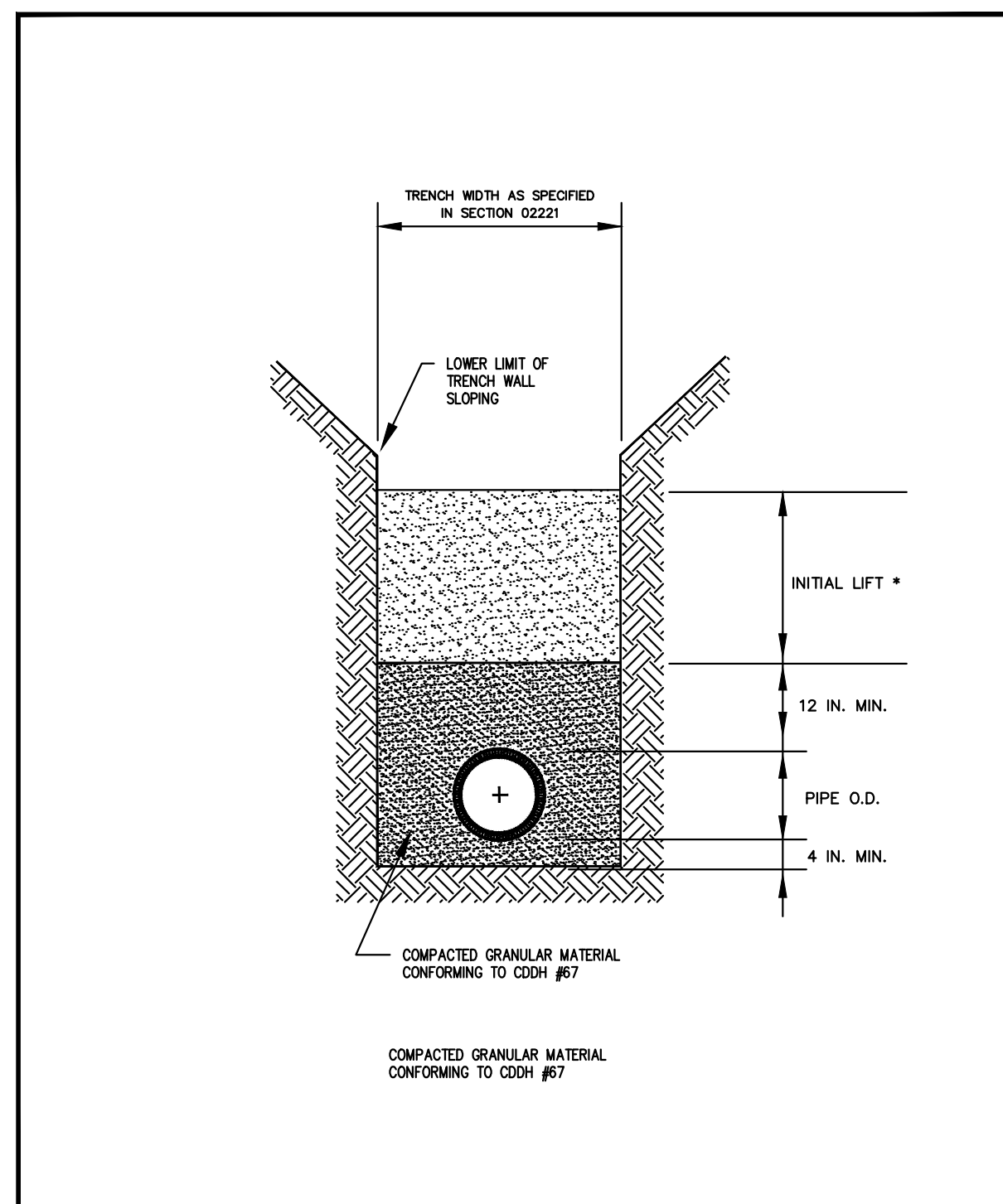
DESIGNED: BG
 DRAWN: DD
 CHECKED: BG
 PROJECT NO: 45-104
 DATE: 10/29/2014

APEX ENGINEERING
 908 Laporte Avenue
 Fort Collins, CO 80521
 (970) 219-2834

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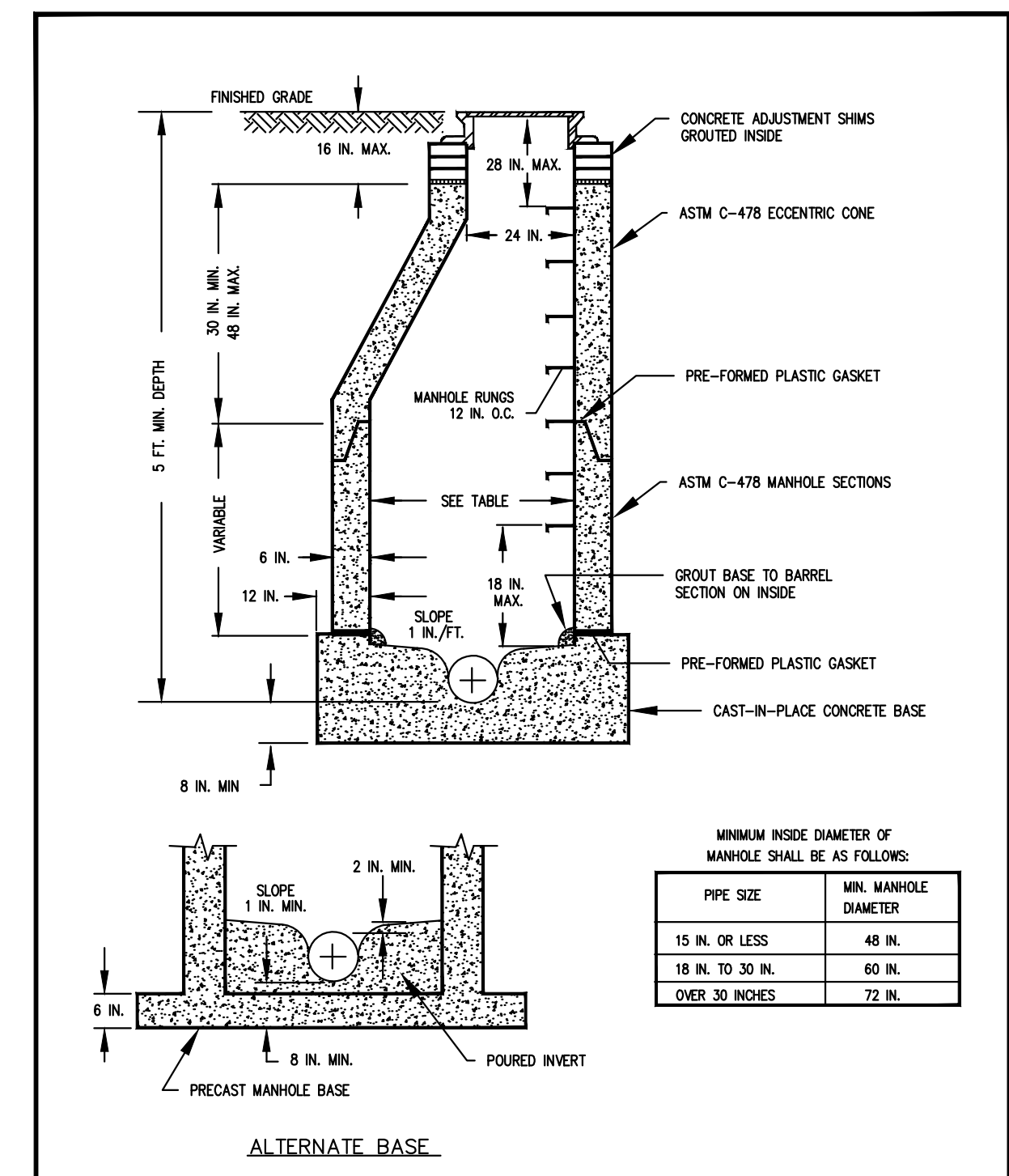
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 NOT FOR CONSTRUCTION

SHEET: C10 OF C11



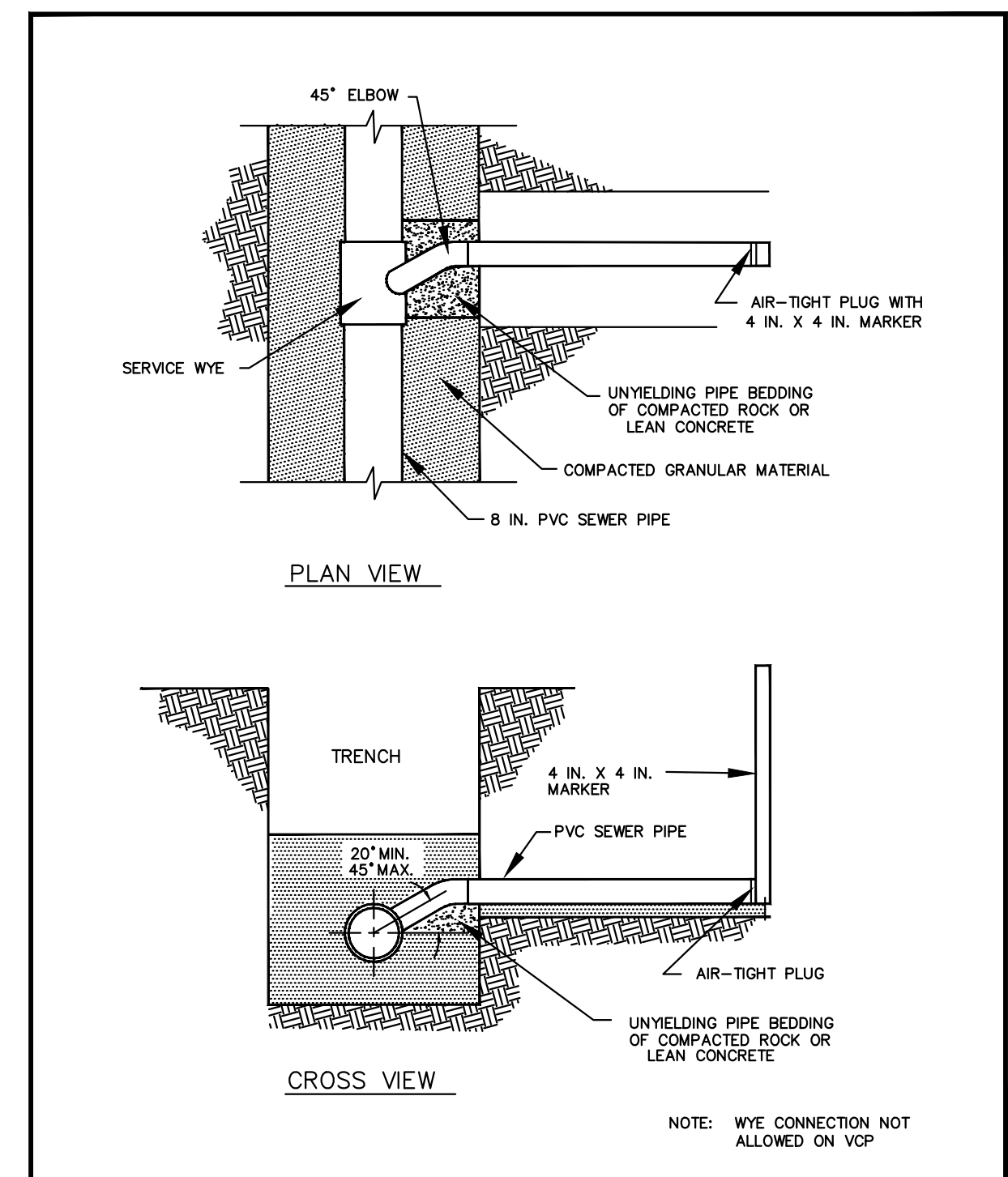
BEDDING REQUIREMENTS

CITY OF FORT COLLINS UTILITIES	SEWER CONSTRUCTION DETAILS	APPROVED:	DETAIL
		DATE: 08/16/02	WW-1
DRAWN BY: NBJ			



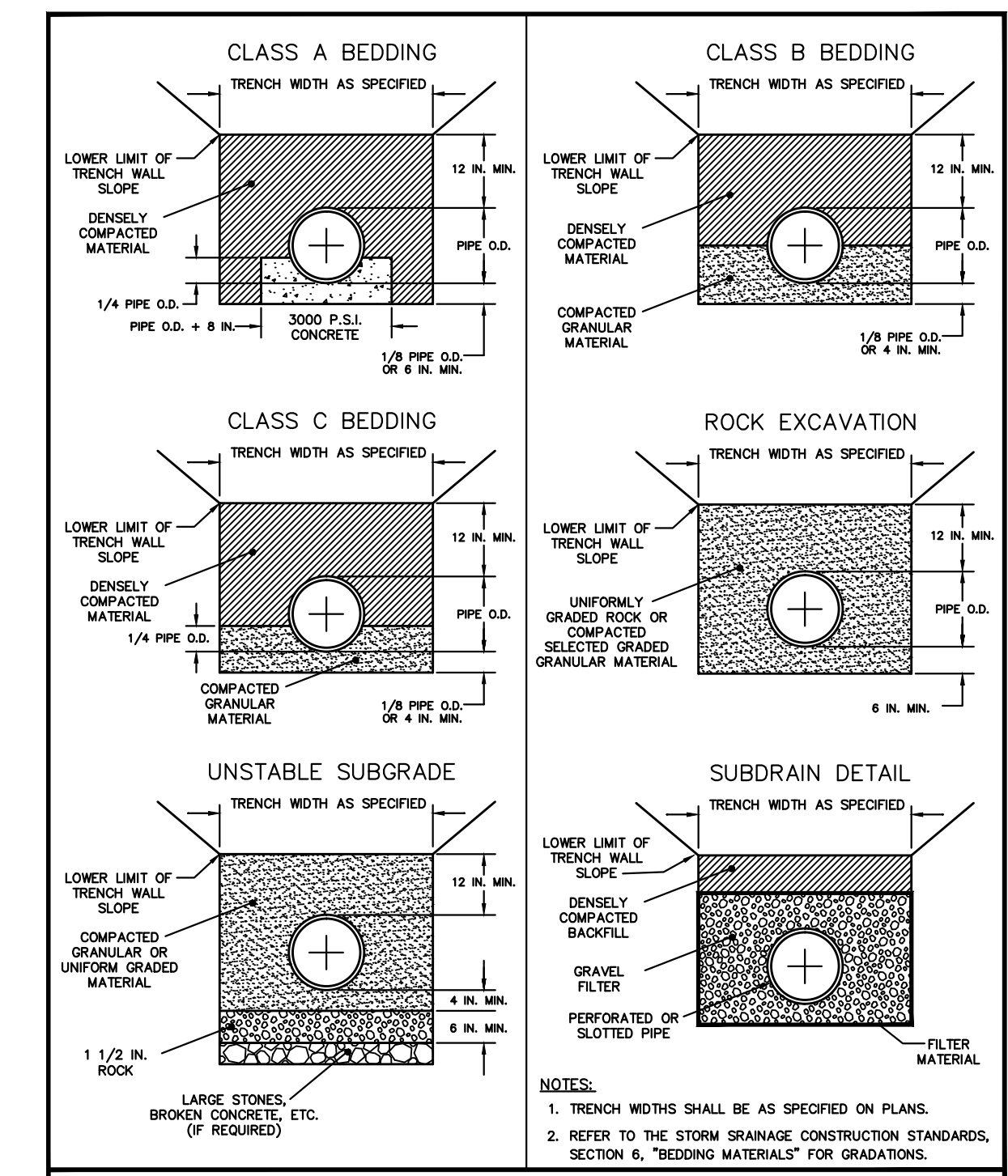
STANDARD MANHOLE

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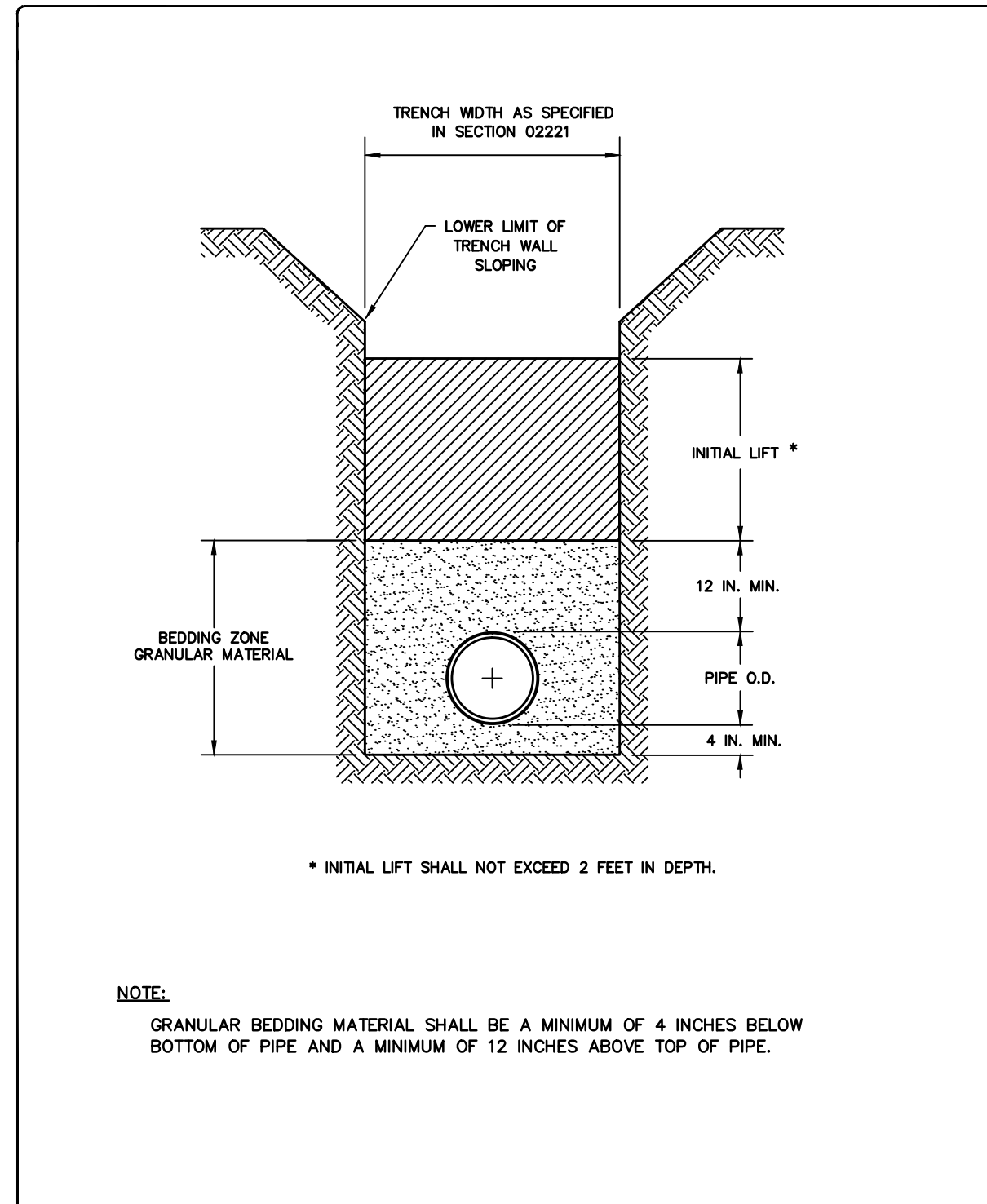
SERVICE WYE DETAIL

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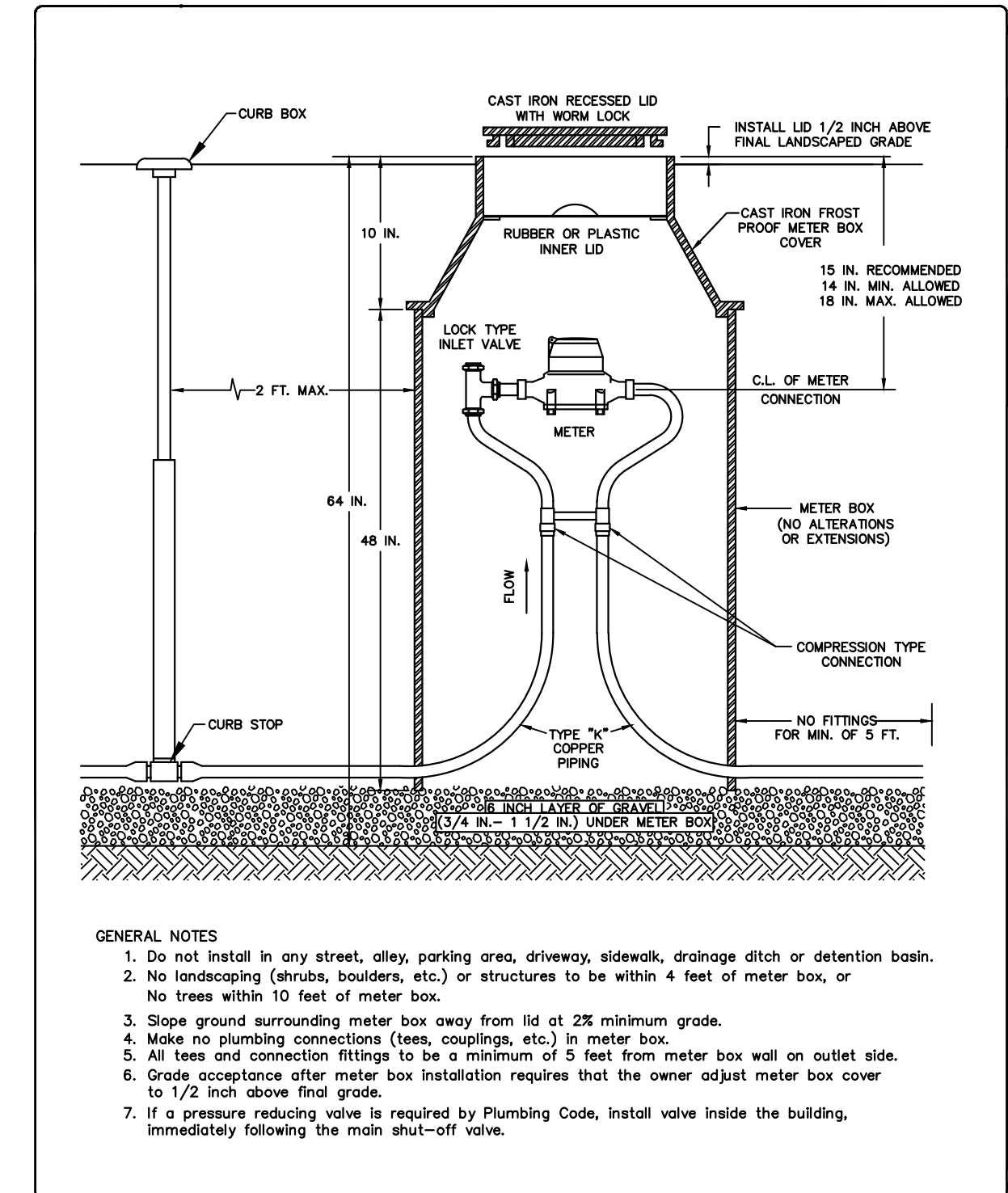
STORMWATER BEDDING REQUIREMENTS

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DRAWN BY: SKG			



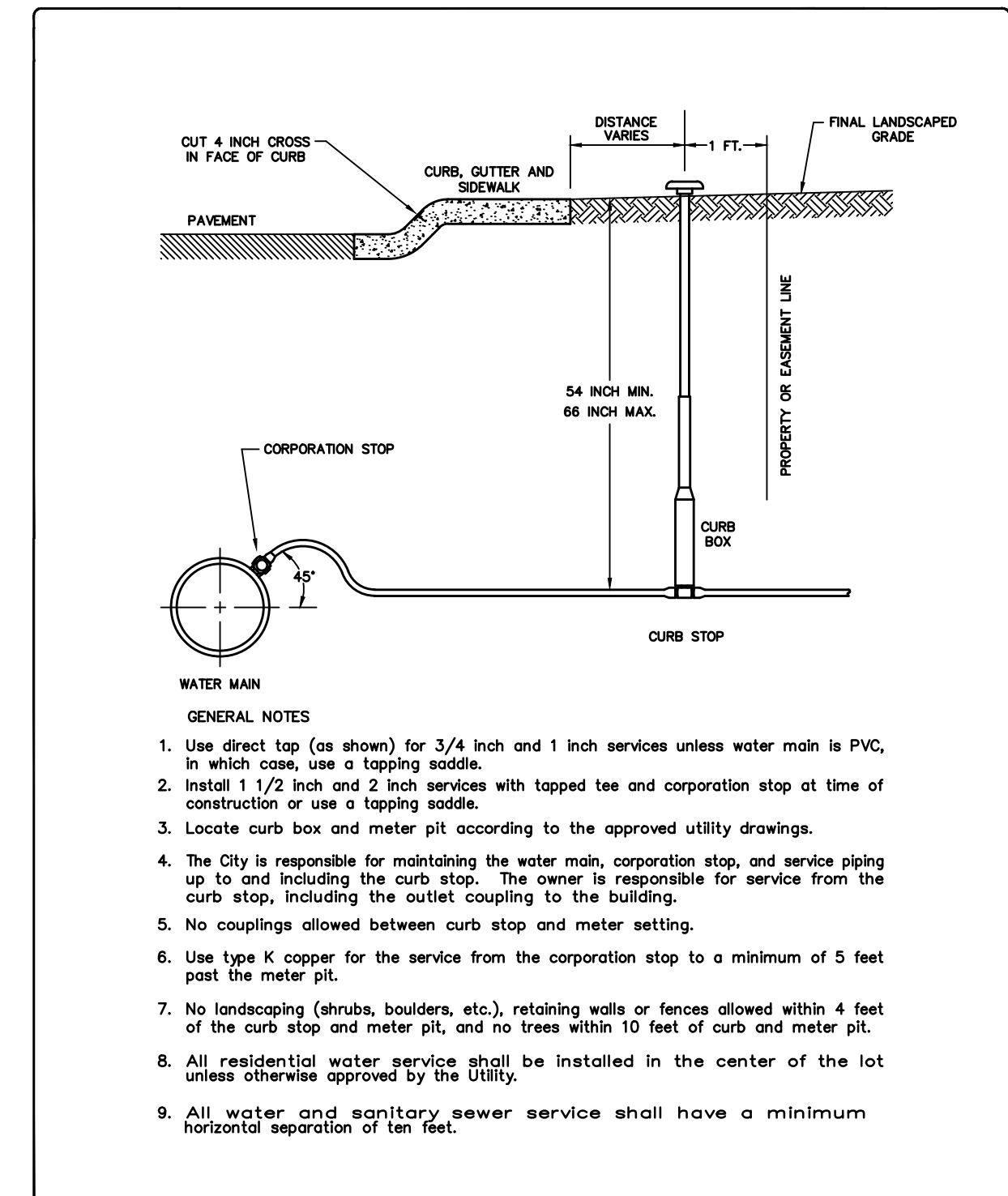
WATER MAIN BEDDING REQUIREMENTS (DIP & PVC)

CITY OF FORT COLLINS UTILITIES	WATER FIELD OPERATIONS	APPROVED:	DETAIL
		DATE: 08/16/02	1
DRAWN BY: NBJ			



STANDARD EXTERIOR SETTING FOR 3/4 IN. AND 1 IN. WATER METERS

CITY OF FORT COLLINS UTILITIES	WATER FIELD OPERATIONS	APPROVED:	DETAIL
		DATE: 08/16/02	15
DRAWN BY: NBJ			



TYPICAL WATER SERVICE

CITY OF FORT COLLINS UTILITIES	WATER FIELD OPERATIONS	APPROVED:	DETAIL
		DATE: 08/16/02	11
DRAWN BY: NBJ			

**City of Fort Collins, Colorado
UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
City Engineer

CHECKED BY: _____ DATE: _____
Water/Wastewater Utility

CHECKED BY: _____ DATE: _____
Stormwater Utility

CHECKED BY: _____ DATE: _____
Parks & Recreation

CHECKED BY: _____ DATE: _____
Traffic Engineer

CHECKED BY: _____

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PRELIMINARY

NOT FOR CONSTRUCTION

DESIGNED: BG
DRAWN: DD
CHECKED: BG

PROJECT NO: 45-104
DATE: 10/29/2014

APEX ENGINEERING
908 Laporte Avenue
Fort Collins, CO 80521
(970) 219-2834

BUCKINGHAM PLACE SECOND FILING
CONSTRUCTION DETAILS - UTILITIES
FORT COLLINS, COLORADO

SHEET:

CII OF CII

May 4, 2013

Mr. Glen Schleuter
Stormwater Department
City of Fort Collins Utilities
700 Wood Street
Fort Collins, CO 80521

**RE: Final Drainage and Erosion Control Letter
Buckingham Place, Second Filing
APEX Project #45-104**

Dear Glen,

We have prepared this final drainage letter for Buckingham Place, Second Filing for your review and approval.

The existing property is an undeveloped 12,529 square-foot lot on the east side of Third Street approximately 200 ft north of Lincoln Avenue. It is located in the Dry Creek Master Drainage Basin. This project proposes to develop to single family residential lots on the property. The following is a summary of the impacts to the drainage systems on and off the site. In addition, supporting calculations and a drainage exhibit have been attached.

Runoff

The existing site (Basin EX) drains to the east and has 0.02 cfs and 0.78 cfs of runoff leaving the site in the 2-year and 100-year storms, respectively. In the developed condition, approximately 0.17 acres drains to the west and 0.12 acres drains to the east. The area draining to the west is defined as Basin A and will have 0.13 cfs and 0.87 cfs of runoff leaving the site in the 2-year and 100-year storms, respectively. The area draining to the east is defined as Basin B and will have 0.02 cfs and 0.41 cfs of runoff leaving the site in the 2-year and 100-year storms, respectively.

Detention Storage

The entire site is estimated to be approximately 50% to 60% impervious when built out. The Dry Creek Master Drainage plan estimated this area at 90% impervious. Due to the reduction in the planned imperviousness, the size of the site, and the difficulty in providing detention we are not proposing any detention storage with this project.

Water Quality

The small site, location of the Coy Ditch, and proximity to adjacent storm sewer make it very difficult to provide typical water quality. The residential site will have an area of non paved surfaces at the front and rear of the lot. These areas will intercept the stormwater runoff that comes from the roof, driveway, and patio areas and provide some water quality via "disconnected impervious areas". This is the extent of water quality that we are proposing.

Erosion Control

Erosion and Sediment Control devices will be implemented on the site as needed. It is anticipated that onsite runoff will be contained by straw wattles or silt fence surrounding the site. Inlet protection will be placed adjacent to the inlet approximately 100' south of this site on 3rd Street. A separate Erosion Control Report has been attached as Appendix C.

Summary

Due to the size of this small site, the proposed development of the site will have minimal impact to the stormwater. The runoff from the site is less than what was originally planned for in the Master Drainage Plan, therefore no on site detention or downstream improvements are included with this project.

I appreciate your time and consideration in reviewing this submittal. Please contact me at 970-217-7420 or seliason@bluesky-engineer.com if you have any questions.

Sincerely,

Samuel M. Eliason, P.E.
APEX Engineering



Attachments:

- Appendix A - Calculation of Peak Runoffs (EX 2-yr, EX 100-yr, A 2-yr, A-100 yr, B 2-yr, B 100-yr)
- Appendix B - Drainage Exhibit
- Appendix C - Erosion Control Report
- Appendix D – Grading and Erosion Plan and Details

Appendix A

Calculation of Peak Runoff

CALCULATION OF A PEAK RUNOFF USING RATIONAL METHOD

Project Title: Buckingham Place, Second Filing
 Catchment ID: Basin EX, Existing 2-year Discharge

I. Catchment Hydrologic Data

Catchment ID = EX
 Area = 0.29 Acres
 Percent Imperviousness = 2.00 %
 NRCS Soil Type = B A, B, C, or D

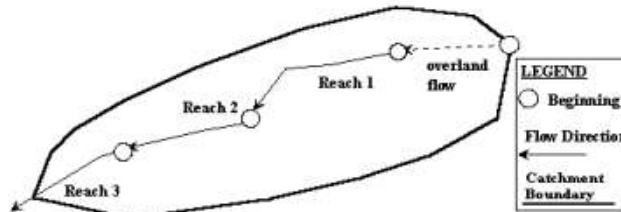
II. Rainfall Information I (inch/hr) = $C1 \cdot P1 / (C2 + Td)^{C3}$

Design Storm Return Period, T_r = 2 years (input return period for design storm)
 $C1$ = 28.50 (input the value of $C1$)
 $C2$ = 10.00 (input the value of $C2$)
 $C3$ = 0.786 (input the value of $C3$)
 $P1$ = 0.82 inches (input one-hr precipitation--see Sheet "Design Info")

III. Analysis of Flow Time (Time of Concentration) for a Catchment

Runoff Coefficient, C = 0.03
 Override Runoff Coefficient, C = _____ (enter an override C value if desired, or leave blank to accept calculated C .)
 5-yr. Runoff Coefficient, $C-5$ = 0.08
 Override 5-yr. Runoff Coefficient, C = _____ (enter an override $C-5$ value if desired, or leave blank to accept calculated $C-5$.)

Illustration



NRCS Land Type	Heavy Meadow	Tillage/Field	Short Pasture/Lawns	Nearly Bare Ground	Grassed Swales/Waterways	Paved Areas & Shallow Paved Swales (Sheet Flow)
Conveyance	2.5	5	7	10	15	20

Calculations:

Reach ID	Slope S	Length L	5-yr Runoff Coeff C-5	NRCS Conveyance	Flow Velocity V	Flow Time T1
	ft/ft	ft	input output	input	fps	minutes
Overland	0.0100	120	0.08		0.10	20.14
1						
2						
3						
4						
5						
Sum		120				

Computed T_c = 20.14
 Regional T_c = 10.67

IV.

Peak Runoff Prediction using Computed T_c	Prediction using Regional T_c
Rainfall Intensity at T_c , I = <u>1.61</u> inch/hr	Rainfall Intensity at T_c , I = <u>2.16</u> inch/hr
Peak Flowrate, Q_p = <u>0.01</u> cfs	Peak Flowrate, Q_p = <u>0.02</u> cfs

CALCULATION OF A PEAK RUNOFF USING RATIONAL METHOD

Project Title: Buckingham Place, Second Filing
 Catchment ID: Basin EX, Existing 100-year Discharge

I. Catchment Hydrologic Data

Catchment ID = EX
 Area = 0.29 Acres
 Percent Imperviousness = 2.00 %
 NRCS Soil Type = B A, B, C, or D

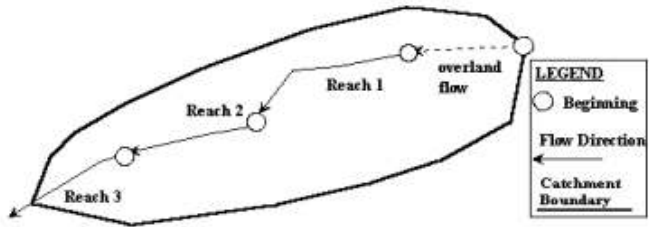
II. Rainfall Information I (inch/hr) = $C1 * P1 / (C2 + Td)^{C3}$

Design Storm Return Period, T_r = 100 years (input return period for design storm)
 $C1$ = 28.50 (input the value of $C1$)
 $C2$ = 10.00 (input the value of $C2$)
 $C3$ = 0.793 (input the value of $C3$)
 $P1$ = 2.91 inches (input one-hr precipitation--see Sheet "Design Info")

III. Analysis of Flow Time (Time of Concentration) for a Catchment

Runoff Coefficient, C = 0.36
 Override Runoff Coefficient, C = _____ (enter an override C value if desired, or leave blank to accept calculated C .)
 5-yr. Runoff Coefficient, $C-5$ = 0.08
 Override 5-yr. Runoff Coefficient, C = _____ (enter an override $C-5$ value if desired, or leave blank to accept calculated $C-5$.)

Illustration



NRCS Land Type	Heavy Meadow	Tillage/Field	Short Pasture/Lawns	Nearly Bare Ground	Grassed Swales/Waterways	Paved Areas & Shallow Paved Swales (Sheet Flow)
Conveyance	2.5	5	7	10	15	20

Calculations:

Reach ID	Slope S	Length L	5-yr Runoff Coeff	NRCS Conveyance	Flow Velocity V	Flow Time Tt
	ft/ft	ft	C-5	input	fps	minutes
	input	input	output	input	output	output
Overland	0.0100	120	0.08		0.10	20.14
1						
2						
3						
4						
5						
Sum		120				

Computed T_c = 20.14
 Regional T_c = 10.67

IV.

Peak Runoff Prediction using Computed T_c Rainfall Intensity at T_c , I = <u>5.57</u> inch/hr Peak Flowrate, Q_p = <u>0.58</u> cfs	Peak Runoff Prediction using Regional T_c Rainfall Intensity at T_c , I = <u>7.51</u> inch/hr Peak Flowrate, Q_p = <u>0.78</u> cfs
--	--

CALCULATION OF A PEAK RUNOFF USING RATIONAL METHOD

Project Title: Buckingham Place, Second Filing
 Catchment ID: Basin A, 2-year Discharge for Offsite Design

I. Catchment Hydrologic Data

Catchment ID = A
 Area = 0.12 Acres
 Percent Imperviousness = 75.00 %
 NRCS Soil Type = B, A, B, C, or D

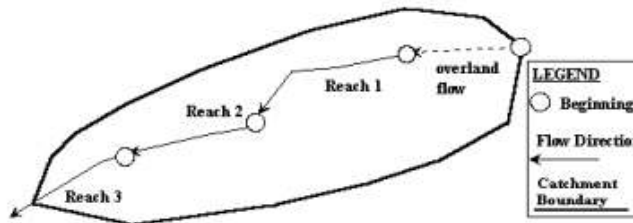
II. Rainfall Information I (inch/hr) = $C1 * P1 / (C2 + Td)^{C3}$

Design Storm Return Period, T_r = 2 years (input return period for design storm)
 $C1$ = 28.50 (input the value of $C1$)
 $C2$ = 10.00 (input the value of $C2$)
 $C3$ = 0.786 (input the value of $C3$)
 $P1$ = 0.82 inches (input one-hr precipitation--see Sheet "Design Info")

III. Analysis of Flow Time (Time of Concentration) for a Catchment

Runoff Coefficient, C = 0.51
 Override Runoff Coefficient, C = _____ (enter an override C value if desired, or leave blank to accept calculated C .)
 5-yr. Runoff Coefficient, $C-5$ = 0.54
 Override 5-yr. Runoff Coefficient, C = _____ (enter an override $C-5$ value if desired, or leave blank to accept calculated $C-5$.)

Illustration



NRCS Land Type	Heavy Meadow	Tillage/Field	Short Pasture/Lawns	Nearly Bare Ground	Grassed Swales/Waterways	Paved Areas & Shallow Paved Swales (Sheet Flow)
Conveyance	2.5	5	7	10	15	20

Calculations:

Reach ID	Slope S (ft/ft)	Length L (ft)	5-yr Runoff Coeff C-5	NRCS Conveyance	Flow Velocity V (fps)	Flow Time Tt (minutes)
Overland	0.0100	83	0.54	input	output	output
1	0.0050	114		20.00	1.41	1.34
2						
3						
4						
5						
Sum		197				

Computed T_c = 10.56
 Regional T_c = 11.09

IV.

Peak Runoff Prediction using Computed T_c Rainfall Intensity at T_c , I = <u>2.17</u> inch/hr Peak Flowrate, Q_p = <u>0.13</u> cfs	Prediction using Regional T_c Rainfall Intensity at T_c , I = <u>2.13</u> inch/hr Peak Flowrate, Q_p = <u>0.13</u> cfs
--	--

CALCULATION OF A PEAK RUNOFF USING RATIONAL METHOD

Project Title: Buckingham Place, Second Filing
 Catchment ID: Basin A, 100-year Runoff

I. Catchment Hydrologic Data

Catchment ID = A
 Area = 0.17 Acres
 Percent Imperviousness = 75.00 %
 NRCS Soil Type = B A, B, C, or D

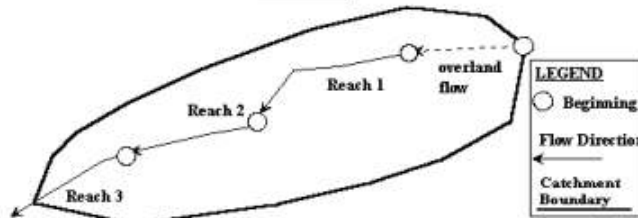
II. Rainfall Information $I (\text{inch/hr}) = C1 * P1 / (C2 + Td)^{C3}$

Design Storm Return Period, T_r = 100 years (input return period for design storm)
 $C1$ = 28.50 (input the value of $C1$)
 $C2$ = 10.00 (input the value of $C2$)
 $C3$ = 0.786 (input the value of $C3$)
 $P1$ = 2.91 inches (input one-hr precipitation--see Sheet "Design Info")

III. Analysis of Flow Time (Time of Concentration) for a Catchment

Runoff Coefficient, C = 0.66
 Override Runoff Coefficient, C = _____ (enter an override C value if desired, or leave blank to accept calculated C .)
 5-yr. Runoff Coefficient, $C-5$ = 0.54
 Override 5-yr. Runoff Coefficient, C = _____ (enter an override $C-5$ value if desired, or leave blank to accept calculated $C-5$.)

Illustration



NRCS Land Type	Heavy Meadow	Tillage/Field	Short Pasture/Lawns	Nearly Bare Ground	Grassed Swales/Waterways	Paved Areas & Shallow Paved Swales (Sheet Flow)
Conveyance	2.5	5	7	10	15	20

Calculations:

Reach ID	Slope S	Length L	5-yr Runoff Coeff C-5	NRCS Conveyance	Flow Velocity V	Flow Time Tt
	ft/ft	ft	input	input	fps	minutes
			output	output	output	output
Overland	0.0100	83	0.54		0.15	9.22
1	0.0050	114		20.00	1.41	1.34
2						
3						
4						
5						
Sum		197				
Computed T_c =						10.56
Regional T_c =						11.09

IV.

Peak Runoff Prediction using Computed T_c	Prediction using Regional T_c
Rainfall Intensity at T_c , I = <u>7.70</u> inch/hr	Rainfall Intensity at T_c , I = <u>7.55</u> inch/hr
Peak Flowrate, Q_p = <u>0.87</u> cfs	Peak Flowrate, Q_p = <u>0.85</u> cfs

CALCULATION OF A PEAK RUNOFF USING RATIONAL METHOD

Project Title: Buckingham Place, Second Filing
 Catchment ID: Basin B, 2-year Discharge for Offsite Design

I. Catchment Hydrologic Data

Catchment ID = B
 Area = 0.12 Acres
 Percent Imperviousness = 11.00 %
 NRCS Soil Type = B A, B, C, or D

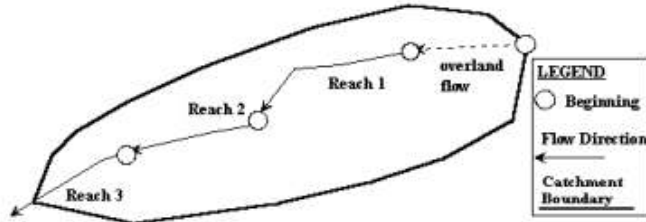
II. Rainfall Information $I (\text{inch/hr}) = C1 * P1 / (C2 + Td)^{C3}$

Design Storm Return Period, T_r = 2 years (input return period for design storm)
 C1 = 28.50 (input the value of C1)
 C2 = 10.00 (input the value of C2)
 C3 = 0.786 (input the value of C3)
 P1 = 0.82 inches (input one-hr precipitation--see Sheet "Design Info")

III. Analysis of Flow Time (Time of Concentration) for a Catchment

Runoff Coefficient, C = 0.06
 Override Runoff Coefficient, C = _____ (enter an override C value if desired, or leave blank to accept calculated C.)
 5-yr. Runoff Coefficient, C-5 = 0.14
 Override 5-yr. Runoff Coefficient, C = _____ (enter an override C-5 value if desired, or leave blank to accept calculated C-5.)

Illustration



NRCS Land Type	Heavy Meadow	Tillage/Field	Short Pasture/Lawns	Nearly Bare Ground	Grassed Swales/Waterways	Paved Areas & Shallow Paved Swales (Sheet Flow)
Conveyance	2.5	5	7	10	15	20

Calculations:

Reach ID	Slope S	Length L	5-yr Runoff Coeff C-5	NRCS Conveyance	Flow Velocity V	Flow Time Tt
	ft/ft	ft	input output	input	ftps	minutes
Overland	0.0500	50	0.14		0.12	7.18
1						
2						
3						
4						
5						
Sum		50				

Computed Tc = 7.18
 Regional Tc = 10.28

IV.

Peak Runoff Prediction using Computed Tc	Prediction using Regional Tc
Rainfall Intensity at Tc, I = <u>2.50</u> inch/hr	Rainfall Intensity at Tc, I = <u>2.19</u> inch/hr
Peak Flowrate, Qp = <u>0.02</u> cfs	Peak Flowrate, Qp = <u>0.01</u> cfs

CALCULATION OF A PEAK RUNOFF USING RATIONAL METHOD

Project Title: **Buckingham Place, Second Filing**
 Catchment ID: **Basin B, 100-year Discharge for Swale B and Offsite Design**

I. Catchment Hydrologic Data

Catchment ID = **B**
 Area = **0.12** Acres
 Percent Imperviousness = **11.00** %
 NRCS Soil Type = **B** A, B, C, or D

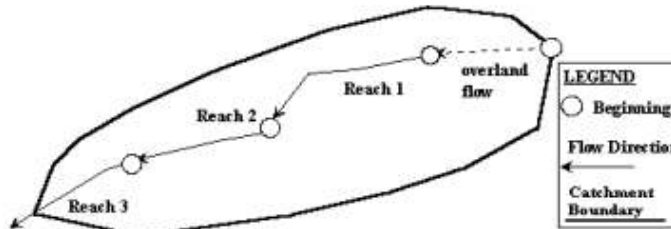
II. Rainfall Information I (inch/hr) = $C1 \cdot P1 / (C2 + Td)^{C3}$

Design Storm Return Period, T_r = **100** years (input return period for design storm)
 $C1$ = **28.50** (input the value of $C1$)
 $C2$ = **10.00** (input the value of $C2$)
 $C3$ = **0.793** (input the value of $C3$)
 $P1$ = **2.91** inches (input one-hr precipitation--see Sheet "Design Info")

III. Analysis of Flow Time (Time of Concentration) for a Catchment

Runoff Coefficient, C = **0.41**
 Override Runoff Coefficient, C = (enter an override C value if desired, or leave blank to accept calculated C .)
 5-yr. Runoff Coefficient, $C-5$ = **0.14**
 Override 5-yr. Runoff Coefficient, C = (enter an override $C-5$ value if desired, or leave blank to accept calculated $C-5$.)

Illustration



NRCS Land Type	Heavy Meadow	Tillage/Field	Short Pasture/Lawns	Nearly Bare Ground	Grassed Swales/Waterways	Paved Areas & Shallow Paved Swales (Sheet Flow)
Conveyance	2.5	5	7	10	15	20

Calculations:

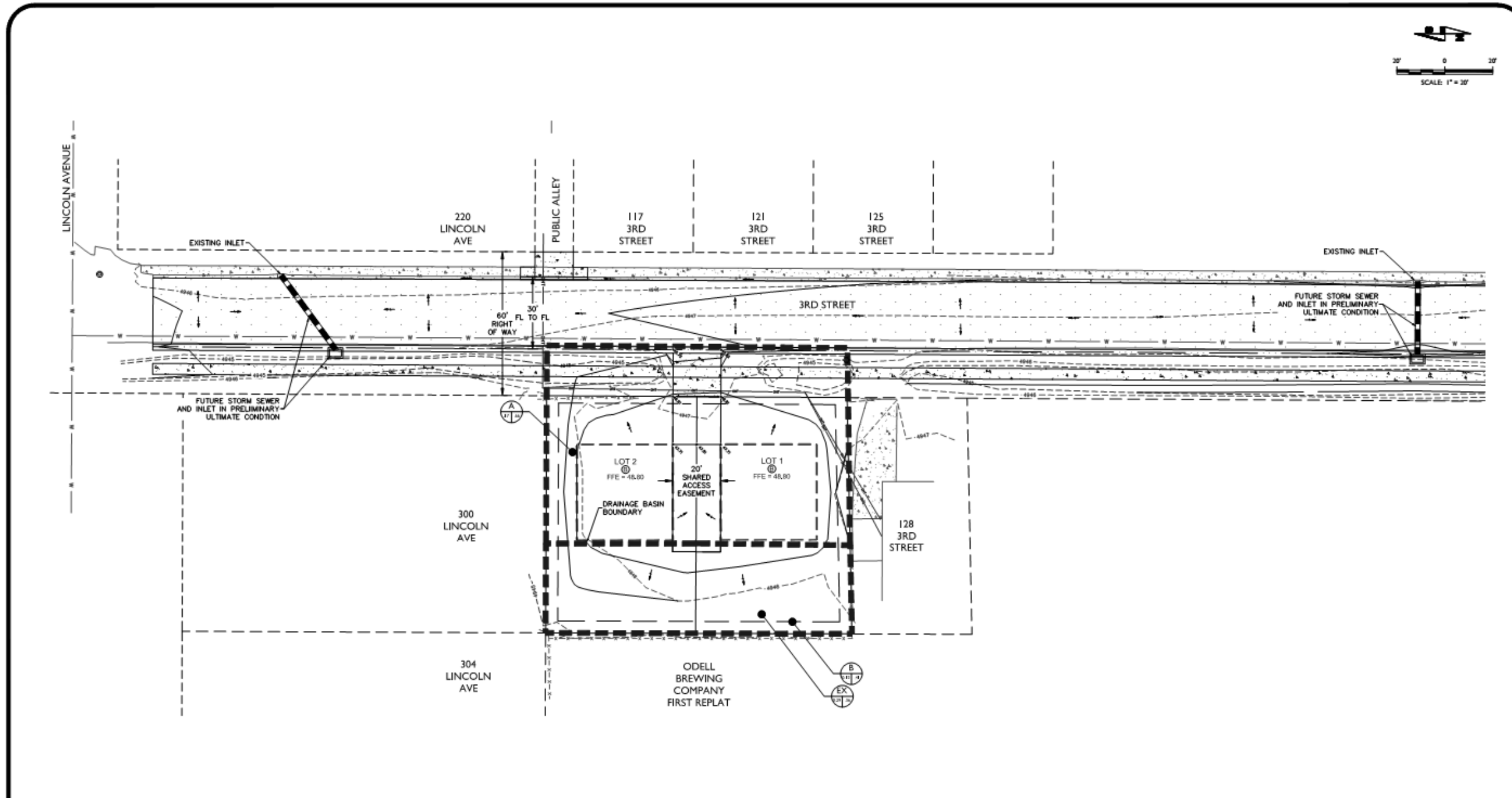
Reach ID	Slope S	Length L	5-yr Runoff Coeff C-5	NRCS Conveyance	Flow Velocity V	Flow Time Tt
	ft/ft	ft	output	input	fps	minutes
	input	input	output	input	output	output
Overland	0.0500	50	0.14		0.12	7.18
1						
2						
3						
4						
5						
Sum		50				
Computed Tc =						7.18
Regional Tc =						10.28

IV.

Peak Runoff Prediction using Computed Tc	Prediction using Regional Tc
Rainfall Intensity at Tc, I = 8.70 inch/hr	Rainfall Intensity at Tc, I = 7.63 inch/hr
Peak Flowrate, Q_p = 0.41 cfs	Peak Flowrate, Q_p = 0.36 cfs

Appendix B

Drainage Exhibit



NOTES:

1. RUNOFF FROM ROOFS SHALL BE DIRECTED VIA ROOF GUTTERS AND DOWNSPOUTS TO THE WESTERN FRONT OF THE HOUSE.
2. PROPOSED PUBLIC IMPROVEMENTS CONSIST OF CONSTRUCTION OF THIRD STREET ALONG FRONTAGE OF SITE AND EXTENSION OF SANITARY SEWER MAIN TO THE SITE.
3. PROPOSED SITE IMPROVEMENTS CONSIST OF COY DITCH RELOCATION AND SITE GRADING FOR CONSTRUCTION OF HOMES ON EACH OF THE TWO LOTS.
4. SEE SHEET C9 FOR DETAILED PLAN AND PROFILE DATA FOR THIRD STREET IMPROVEMENTS.
5. ALL PROPOSED SLOPES WITHIN ROW SHALL HAVE A SLOPE NO STEEPER THAN 4:1.
6. ALL CURB AND GUTTER IS INFALL UNLESS OTHERWISE NOTED.
7. ALL PROPOSED GRADES ARE TO FLOWLINE OR TOP OF SURFACE, UNLESS OTHERWISE NOTED.
8. SEE SITE AND LANDSCAPE PLAN FOR PERMANENT LANDSCAPING AND SITE REVEGETATION INFORMATION.
9. THE FINISHED FLOOR ELEVATIONS SHOWN ARE THE MINIMUM ELEVATIONS REQUIRED FOR PROTECTION FROM THE 100-YEAR STORM.
10. THE PROJECT SITE IS LOCATED WITHIN THE Poudre RIVER 500-YEAR FLOODPLAIN (ZONE X, PROTECTED BY LEVEE). NO FLOODPLAIN PERMITTING IS REQUIRED SINCE SINGLE FAMILY RESIDENTIAL ARE NOT DEEMED CRITICAL FACILITIES.
11. IT IS EXPECTED THAT THE ULTIMATE 3RD STREET IMPROVEMENTS AND THE RELOCATION OF THE COY DITCH WILL NOT BE CONSTRUCTED WITH THE INITIAL DEVELOPMENT OF THIS SITE. SEE INTERIM UTILITY PLAN ON SHEET C4 AND INTERIM GRADING PLAN ON SHEET C8 FOR DETAILS ON INITIAL IMPROVEMENTS.

These plans have been reviewed by the City of Fort Collins for concept only. This review does not imply responsibility by the reviewing department, the City Engineer, or the City of Fort Collins for accuracy and corrections of the calculations. Furthermore, the review does not imply that the quantities of the items on the plans are the final quantities required. The review shall not be construed in any manner as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

**City of Fort Collins, Colorado
 UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
City Engineer

CHECKED BY: _____ DATE: _____
Water/Wastewater Utility

CHECKED BY: _____ DATE: _____
Stormwater Utility

CHECKED BY: _____ DATE: _____
Parks & Recreation

CHECKED BY: _____ DATE: _____
Traffic Engineer

CHECKED BY: _____ DATE: _____

APPROV.	REVISION	NO.	DATE	BY			
		1			PRELIMINARY NOT FOR CONSTRUCTION		
		2					
		3					
		4					
		5					
		6					
		7					
DESIGNED:	BG	DRAWN:	DD	CHECKED:	BG	PROJECT NO.:	16-104
APEX ENGINEERING						DATE:	10/6/2014
908 Lyopore Avenue Fort Collins, CO 80521 (970) 219-2834							
BUCKINGHAM PLACE SECOND FILING GRADING AND DRAINAGE PLAN ULTIMATE CONDITION FORT COLLINS, COLORADO							
SHEET: C6 of C11							

Appendix C

Erosion Control Report

Buckingham Place, Second Filing

Fort Collins, Colorado

A. Site Description

1. Construction Activity Description

Construction activity includes installation of BMP's, grading, utility (sanitary sewer, and waterline) construction, removal and replacement of asphalt and concrete in 3rd Street, on site concrete and wall construction, and building construction.

2. Proposed Sequence for Major Activities

The project is expected to be constructed in one phase with this initial development. The ultimate improvements of 3rd Street, which include reconstruction of the street, new curb & gutter, sidewalk, and potential relocation of the Coy Ditch are not included in this sequence of activities. The developer will be escrowing funds for that future construction and the extent, scope, and timing of that future construction project is totally unknown.

The anticipated sequence for major construction activities is follows:

- Installation of erosion control
- Removals in 3rd Street for installation of utilities
- Installation of utilities
- Patching in 3rd Street
- Clearing, excavation, and removal of existing items
- Installation of building foundation
- Site grading including installation of walls.
- Construction of building
- Final landscaping.

Construction is estimated to begin sometime in 2013 and be fully completed within one year.

3. Area Estimates

The site area as defined by the property boundaries is approximately 12,529 square-feet which is also the area that will undergo clearing and grading activities. The total project area including offsite utilities and paving is approximately 17,000 square-feet.

The site areas do not include any additional offsite areas (for staging, material storage, overburden stockpiles of dirt, borrow areas, etc) other than that mentioned above.

4. Soil Description

Earth Engineering Consultants completed the soils investigations for the project site and presented the results in the *Soil Description and Limitation Report, 3rd Street*

Pavement Section Design, Buckingham Place, Second Filing, Fort Collins, Colorado.
According to this report, the surficial soils are mainly clay loam identified specifically as Loveland clay loam and Table Mountain loam. These soils exhibit low strength and shrink/swell potential and are unstable surficial soils.

5. Existing Vegetation

The existing site is undeveloped with approximately 60% vegetative cover. The vegetative cover consists of native grasses and bushes. There is a large amount of bare dirt on the property that appears to be driven on regularly.

6. Location and Description of Other Potential Pollution Sources

Potential pollutant sources include sediment, uncovered soil, construction machinery, building materials, and fertilizers. It is anticipated that any storage of materials or machinery will be on site and surrounded by silt fence or straw wattles.

7. Non-Stormwater Components of Discharge

According to the *Preliminary Geotechnical Evaluation, 3rd Street and Buckingham, Fort Collins, Colorado* by Earth Engineering Consultants:

Free water was observed at depths on the order of 11 to 14 feet below present site grades at the time of drilling. Those depths are on the order of 4 feet or less below the apparent surface of the native soils

At these depths, it is expected that groundwater will be encountered during the construction of utilities. If groundwater is encountered, a temporary sediment/retention basin should be constructed to store pumped dewatering flows.

The other non-storm water components of discharge include water line flushing, irrigation to establish seeding, washing out concrete trucks, and watering for dust mitigation and compaction. It is important for the contractor to manage the runoff from these items utilizing the BMP's mentioned in this report (ie silt fence and straw wattles)

8. Receiving Waters

This site is located in the Dry Creek Drainage Basin of Fort Collins, Colorado. Runoff from the west side will drain to the west, to the Coy Ditch in the iterim and to 3rd Street when the ultimate Street improvements are installed in the future. Runoff from the east portion of the site drains to the east side of the site and to the property to the east. In both cases, the stormwater eventually makes it to Lincoln street and drains to the east through a series of sewers and swales before it enters Dry Creek. Dry Creek outlets to the Cache La Poudre River south of Mulberry Street and before it crosses underneath Timberline Road.

B. Stormwater Management Controls

I. SWMP Administrator

The SWMP Administrator is currently:

Mr. Charles Meserlian
700 N. College Avenue
Fort Collins, CO 80524
Phone: 970-490-1251
Fax: 970-484-6695

2. Identification of Potential Pollutant Sources

This section focuses on the identification of the potential pollutant sources and briefly discusses the Best Management Practices (BMPs) that will be used. More information on the BMP's utilized on this site is included in the next section "3. Best Management Practices".

A. All disturbed and stored soils;

It is expected that there will be stockpiles of dirt on the site from the utility installations and the foundation excavation. Silt Fence or Straw wattles should be placed around the outer boundary of the site to contain the runoff from the stockpiles.

B. Vehicle tracking of sediments

The construction is so limited on this site that a vehicle tracking control pad has not been shown on the erosion control plan. It is important that the contractor is aware of vehicle tracking of sediments though.

At the end of each workday, the Contractor shall sweep or scrape 3rd Street to dispose of debris that may have accumulated during the workday. It is also important that inlet protection be in place for the inlet on the west side of 3rd Street, that is approximately 100' south of the site.

C. Management of contaminated soils

There are not any known contaminated soils on the site. However, if the contractor encounters contaminated soils during the construction process they should stop construction immediately and notify the appropriate government authorities in accordance with good construction safety and practice.

D. Loading and Unloading operations

Loading and unloading will take place on the site or along 3rd Street. BMP's should be in place to keep sediment from the street and Coy Ditch.

E. Outdoor storage activities (building materials, fertilizers, chemicals, etc.)

Storage of onsite materials including building materials, fertilizers, waterline, sanitary sewer, and storm sewer will be covered and placed on pallets to prevent direct contact with the ground and potential surface runoff.

F. Vehicle and equipment maintenance

Vehicle and equipment maintenance should be performed offsite or onsite within the perimeter silt fence or straw wattles. Vehicle and equipment maintenance shall not happen along 3rd Street. At a minimum all vehicle and equipment maintenance shall be performed on the hard surface or gravel areas at least 50' from any stormwater feature (ie inlet, storm sewer, concentrated runoff, swale, etc.)

G. Significant dust or particulate generating processes

The Contractor shall comply with applicable air pollution control requirements of the City. The Contractor shall take appropriate actions to minimize atmospheric pollution and take reasonable precautions which shall include, but not be limited to:

1. The use of water for control of dusts for construction processes such as demolition, grading, or the clearing of land.
2. Covering, at all times when in motion, open-bodied trucks transporting materials likely to give rise to airborne dusts.

H. Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc;

Chemicals, fuels, lubricants, and paints typical with building construction stored on-site will be in water tight containers and covered as necessary and stored in a bermed area, a storage building, or within a vehicle to act as secondary containment.

I. On-site waste management practices (waste piles, liquid wastes, dumpsters, etc.);

Waste piles should be covered or surrounded by silt fence or straw wattles. Liquid wastes should be collected and stored in covered containers and disposed of properly.

Solid waste materials, including disposable materials incidental to the major construction activities, will be collected in on site dumpsters. The containers will be emptied periodically and trucked away from the site. Dumpsters should have covers.

J. Concrete truck / equipment washing, including the concrete truck chute and associated fixtures and equipment;

A dedicated concrete washout area is not anticipated to be necessary for this project. The contractor shall clean out equipment away so that runoff is not allowed to leave site and enter 3rd Street, the Coy Ditch, or neighboring properties.

K. Dedicated asphalt and concrete batch plants;

There will not be dedicated asphalt or concrete batch plants on this site.

L. Non-industrial waste sources such as worker trash and portable toilets

Worker's trash shall be disposed of in an onsite dumpster. The site should be free of trash at the end of each working day.

Portable toilets shall be utilized by construction personnel and serviced regularly by a commercial operator. They shall be located a minimum of 5 feet from the curb or 50 feet from inlets and must be anchored. If sanitary facilities are located on a paved surface, a secondary containment BMP will need to be constructed.

M. Other areas or procedures where potential spills can occur.

BMP's such as tarps and drip pans should be used for painting, stucco, dry-wall etc. operations

3. Best Management Practices (BMP's)

Once construction activity begins, Best Management Practices (BMP's) intended to contain sediment onsite must be constructed, inspected and repaired as necessary. Such controls must be functional before upslope land disturbance takes place. The BMP's will be installed as shown on the Grading and Erosion Control plan shown in Appendix D. They must be supplemented as on-site experience proves necessary in order to control sediment, pollutant discharge, and insure public safety.

The following temporary and permanent BMP's will be installed and maintained to control on-site erosion and prevent sediment from traveling off-site during construction. The descriptions below provide some information about each BMP, but further information can be found in Urban Storm Drainage Criteria Manual, Volume 3 – Best Management Practices by Urban Drainage and Flood Control District.

Temporary BMP's

- **Construction Fence** is a *temporary* BMP. The contractor is to place construction fencing around development as needed to limit access by construction equipment and personal vehicles to designated areas of ingress and egress. Since the majority of site will soon be surrounded by a permanent fence, there will be limited construction fence needed on this project.
- **Inlet Protection** is a *temporary* BMP that helps prevent soil and debris from the site from entering the storm drain inlets and usually consists of a sediment filter around or upstream of the storm drain inlet. Inlet protection allows storm water to flow into the drain but only after excess sediment has been filtered out. Inlet protection will be used on existing and proposed storm inlets and will be installed at such time as construction of the storm sewer system occurs. Inlet protection for this site will consist of wattles, which are meshed netting “tubes” filled with straw, excelsior, or coconut fiber placed around grated inlets and curb inlets. Wattles require proper installation and maintenance to ensure their performance. Sizing shall be per manufacturer's recommendation.
- **Regular Meetings** is a *temporary* and non-structural BMP. Regular meetings with on-site workers including builders, suppliers, landscape personnel, etc. should be conducted so that they are kept up to date with site standard operating procedures.

- **Silt Fence** is a woven synthetic permeable fabric that filters runoff. Silt fence is a *temporary* barrier that is installed prior to earthmoving activities and is placed downstream of areas where runoff from construction activities is expected to occur, especially along the site perimeter to allow sediment to settle from runoff before water leaves the construction site. Silt fences will be installed per manufacturer's recommendations. Silt fence encourages sheet flow and is not intended to be used in areas of concentrated flow. If concentrated flow is encountered during the placement of the fence, an alternative BMP shall be used and the SWMP should be updated to reflect this change.
- **Straw Wattles** are a *temporary* BMP that are used for a variety of purposes. They are used for inlet protection, curbside check dams, swale protection, at the bottom of slopes, or the limits of property boundaries. The straw wattles, which are meshed netting "tubes" filled with straw, excelsior, or coconut fiber. Wattles for swale protection should be installed following rough grading of channel areas. Wattles require proper installation and maintenance to ensure their performance.
- **Street Sweeping and Vacuuming** removes sediment that has been tracked onto roadways to reduce sediment transport into storm drain systems or a surface waterway. This practice should be used on the adjacent paved road to the construction site. Paved roads should be inspected on a daily basis and more frequently as needed.
- **Temporary Seeding** is the establishment of a *temporary* vegetative cover on a graded area that will be exposed for longer 30 days. Temporary seeding can be used on areas requiring temporary protection that will eventually need permanent vegetation at the completion of the construction or it can be used for areas that will be re-disturbed after a period of inactivity.
- **Wind Borne Sediment and Dust Control** measures will be provided during the construction process to control wind borne sediment. During grading activities, water will be applied to the disturbed soils for the purpose of maintaining cohesion with clay type soils and also to meet moisture requirements for compaction of disturbed soils. Other measures of mitigation for wind erosion may include the timely installation of seed and mulch following the establishment of final grade, and the timely installation of pavement following completion of utility trenching operations and curb construction. Open areas should be kept in a roughened condition.

Permanent BMP's

- **Permanent Seeding and Planting** is the establishment of a *permanent* perennial vegetation such as trees, shrubs, vines, grasses/sod, or legumes on exposed areas for final permanent stabilization in order to provide stabilization of the soil by holding soil particles in place. It also reduces storm water runoff velocity, maintains sheet flow, protects the soil surface from erosion, promotes infiltration of runoff, and improves wildlife habitat.

- **Preservation of Existing Vegetation** should occur where no construction activity is expected to occur. Preservation of natural vegetation is generally a *permanent* BMP and is applicable to construction sites with pre-existing vegetation. Only land needed for building activities and vehicle traffic needs to be cleared.

C. Erosion Control Sequencing

The erosion control sequencing for construction is as follows:

Prior to Construction

Silt Fence or Straw Wattles – Before construction commencement, silt fence will be placed around the boundary of the site.

Inlet Protection – Inlet protection should be in place on the inlet that is on the west side of 3rd Street, approximately 100' north of the site.

These erosion control devices shall be in place, functional, and maintained during and following the construction operations.

During Construction

Street Sweeping and Cleaning – The adjacent streets and parking lots shall be swept and cleaned on a daily basis to ensure sediment is not being tracked away from the construction site.

Wind Borne Sediment and Dust Control – Wind borne sediment and dust control measures should be implemented during grading activities.

Permanent Seeding – Permanent seeding or landscaping shall be placed immediately in areas that are final graded and where little future disturbance is expected. In particular, permanent seeding should be included on the side slopes of the detention pond.

Temporary Seeding – The majority of the landscaped areas will be permanently seeded/planted. However, if any of the areas are left disturbed without permanent stabilization 30 days after grading, temporary seeding will be required.

Post Construction

BMP's shall be maintained until final site stabilization.

D. Final Stabilization and Long-term Stormwater Quality

Final stabilization is reached when all soil disturbing activities at the site have been completed and vegetative cover has been established with a density of at least 70 percent of pre-disturbance levels or when equivalent permanent erosion reduction methods have been utilized. Upon final stabilization, temporary BMP's may be removed.

Water quality will be provided through established landscaping and pervious areas on the site.

E. Inspection and Maintenance Procedures

Appropriate measures shall be taken to inspect and maintain existing erosion control features, as described herein or per manufacturers specifications (whichever is more stringent) and install new erosion control elements as needed.

The temporary BMP's will be inspected and documented at a minimum of once every 14 days and after each precipitation or snowmelt event. Records should include complete inspection reports for each inspection, maintenance and/or repair. A record-keeping system is recommended in managing inspection and maintenance reports and should include all maintenance records, spill response, weather conditions, training, correspondence, etc.

Preventative maintenance also involves the regular inspection and testing of equipment, timely maintenance of the equipment, and complete records of the maintenance and inspections of the equipment. The maintenance and inspection records should be kept on site and made available upon request.

Inspections must include the observation of the construction site perimeter, runoff discharge points, disturbed areas, staging areas (including concrete washout areas and fueling areas), erosion and sediment control measures identified, and any other structural BMP's that may require maintenance. The inspection must determine if there is evidence of or potential for pollutants to enter the drainage system and if they should be modified, replaced, or added to.

The following list includes some recommended maintenance procedures:

- Erosion and sediment control measures determined, upon inspection, to be in need of repair shall be maintained before the next anticipated storm event or as necessary to maintain continued effectiveness of erosion and sediment control measures. If it is impractical to maintain erosion and sediment control measures before the next storm event, maintenance should be accomplished as soon as practical.
- Locations where vehicles enter or exit the site shall be inspected for evidence of sediment being tracked off-site by construction traffic. Such sediment shall be removed before it can be conveyed to the receiving storm drains or creeks.
- Seeded areas will be checked to see that grass coverage is maintained. Areas will be watered, fertilized and reseeded as needed.
- It is the responsibility of the Operator to maintain effective pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more control than are shown on the Erosion Control Plan. For example, localized concentrations of surface runoff or unusually steep areas could require additional erosion control devices. Assessing the need for, and implementing additional controls will be a continuing aspect of the SWMP until final stabilization. This plan intends to control water-borne and liquid pollutant discharges by some combination of interception, filtration, and containment.

Parties implementing this plan must remain alert to the need to periodically refine and update the plan in order to accomplish the intended goals.

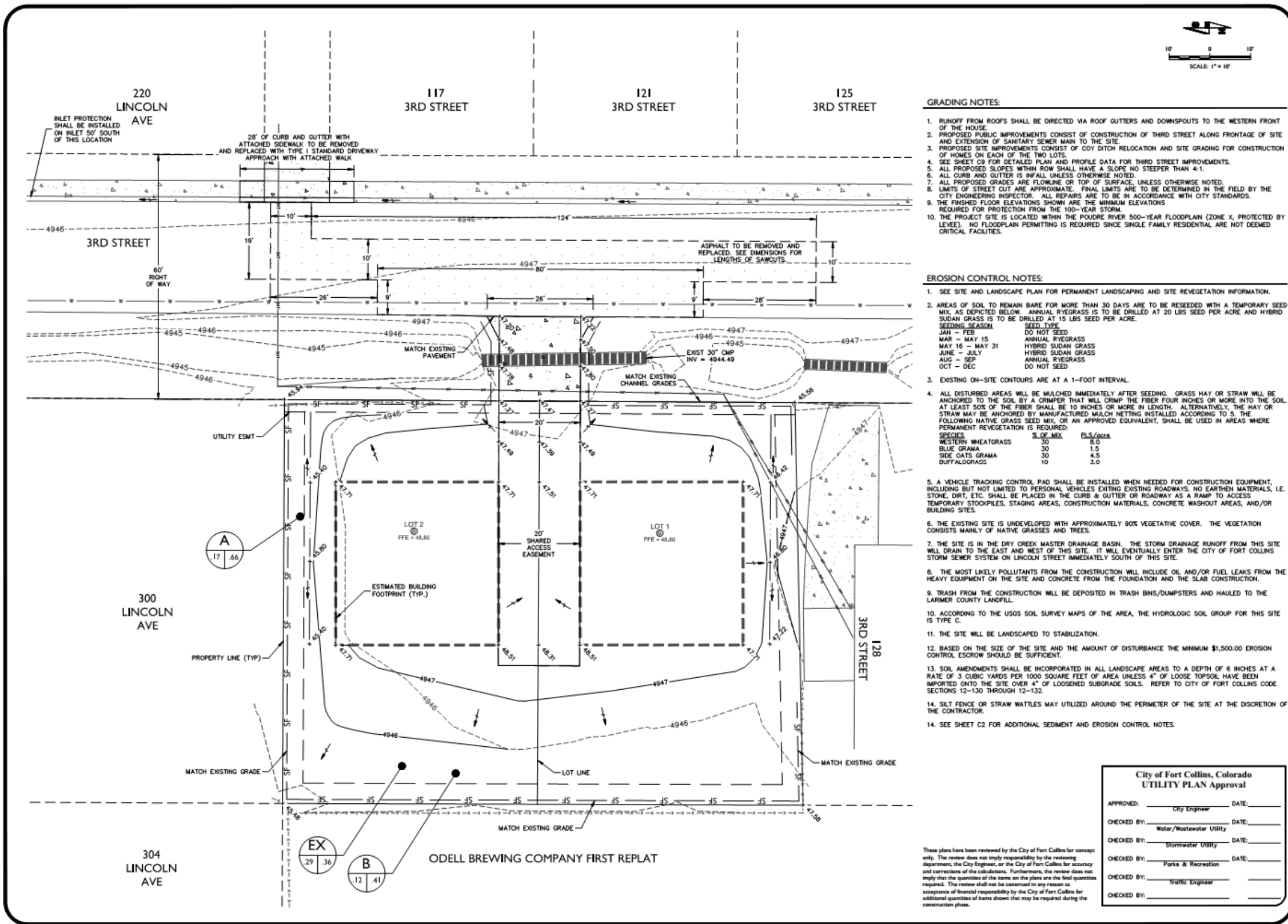
- Sediment that has escaped the construction site must be removed at a frequency sufficient to minimize off-site impacts.

F. Erosion Control Surety Calculations

An Engineer's opinion of probable cost for the erosion/sediment control measures has not been included because the minimum \$1500 will cover this small site.

Appendix D

Grading and Erosion Control Plan and Details



GRADING NOTES:

1. RUNOFF FROM ROOFS SHALL BE DIRECTED VIA ROOF GUTTERS AND DOWNSPOUTS TO THE WESTERN FRONT OF THE HOUSE.
2. PROPOSED PUBLIC IMPROVEMENTS CONSIST OF CONSTRUCTION OF THIRD STREET ALONG FRONTAGE OF SITE AND EXTENSION OF SANITARY SEWER MAIN TO THE SITE.
3. PROPOSED SITE IMPROVEMENTS CONSIST OF COTY DITCH RELOCATION AND SITE GRADING FOR CONSTRUCTION OF HOMES ON EACH OF THE TWO LOTS.
4. SEE SHEET C9 FOR DETAILED PLAN AND PROFILE DATA FOR THIRD STREET IMPROVEMENTS.
5. ALL PROPOSED SLOPES WITHIN ROW SHALL HAVE A SLOPE NO STEEPER THAN 4:1.
6. ALL CURB AND GUTTER IS INFALL UNLESS OTHERWISE NOTED.
7. ALL PROPOSED GRADES ARE FLOWLINE OR TOP OF SURFACE, UNLESS OTHERWISE NOTED.
8. LIMITS OF STREET CUT ARE APPROXIMATE. FINAL LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE CITY ENGINEERING INSPECTOR. ALL REPAIRS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS.
9. THE FINISHED FLOOR ELEVATIONS SHOWN ARE THE MINIMUM ELEVATIONS REQUIRED FOR PROTECTION FROM THE 100-YEAR STORM.
10. THE PROJECT SITE IS LOCATED WITHIN THE Poudre RIVER 500-YEAR FLOODPLAIN (ZONE X, PROTECTED BY LEVEE). NO FLOODPLAIN PERMITTING IS REQUIRED SINCE SINGLE FAMILY RESIDENTIAL ARE NOT DEEMED CRITICAL FACILITIES.

EROSION CONTROL NOTES:

1. SEE SITE AND LANDSCAPE PLAN FOR PERMANENT LANDSCAPING AND SITE REVEGETATION INFORMATION.
2. AREAS OF SOIL TO REMAIN BARE FOR MORE THAN 30 DAYS ARE TO BE RESEED WITH A TEMPORARY SEED MIX AS DEPICTED BELOW. ANNUAL RYEGRASS IS TO BE DRILLED AT 20 LBS SEED PER ACRE AND HYBRID SUDAN GRASS IS TO BE DRILLED AT 15 LBS SEED PER ACRE.

SEEDING SEASON	SEED TYPE
JAN - FEB	DO NOT SEED
MAR - MAY 15	ANNUAL RYEGRASS
MAY 16 - MAY 31	HYBRID SUDAN GRASS
JUNE - JULY	HYBRID SUDAN GRASS
AUG - SEP	ANNUAL RYEGRASS
OCT - DEC	DO NOT SEED
3. EXISTING ON-SITE CONTOURS ARE AT A 1-FOOT INTERVAL.
4. ALL DISTURBED AREAS WILL BE MULCHED IMMEDIATELY AFTER SEEDING. GRASS HAY OR STRAW WILL BE ANCHORED TO THE SOIL BY A CRIMPER THAT WILL CRIMP THE FIBER FOUR INCHES OR MORE INTO THE SOIL. AT LEAST 50% OF THE FIBER SHALL BE 10 INCHES OR MORE IN LENGTH. ALTERNATIVELY, THE HAY OR STRAW MAY BE ANCHORED BY MANUFACTURED MULCH NETTING INSTALLED ACCORDING TO 5. THE FOLLOWING NATIVE GRASS SEED MIX, OR AN APPROVED EQUIVALENT, SHALL BE USED IN AREAS WHERE PERMANENT REVEGETATION IS REQUIRED:

SPECIES	% OF MIX	PLS./ACR
WESTERN WHEATGRASS	30	5.0
BLUE GRAMA	30	1.5
SIDE OATS GRAMA	30	4.5
BUFFALOGRASS	10	3.0
5. A VEHICLE TRACKING CONTROL PAD SHALL BE INSTALLED WHEN NEEDED FOR CONSTRUCTION EQUIPMENT, INCLUDING BUT NOT LIMITED TO PERSONAL VEHICLES EXITING EXISTING ROADWAYS. NO EARTHEN MATERIALS, I.E. STONE, DIRT, ETC. SHALL BE PLACED IN THE CURB & GUTTER OR ROADWAY AS A RAMP TO ACCESS TEMPORARY STOCKPILES, STAGING AREAS, CONSTRUCTION MATERIALS, CONCRETE WASHOUT AREAS, AND/OR BUILDING SITES.
6. THE EXISTING SITE IS UNDEVELOPED WITH APPROXIMATELY 90% VEGETATIVE COVER. THE VEGETATION CONSISTS MAINLY OF NATIVE GRASSES AND TREES.
7. THE SITE IS IN THE DRY CREEK MASTER DRAINAGE BASIN. THE STORM DRAINAGE RUNOFF FROM THIS SITE WILL DRAIN TO THE EAST AND WEST OF THIS SITE. IT WILL EVENTUALLY ENTER THE CITY OF FORT COLLINS STORM SEWER SYSTEM ON LINCOLN STREET IMMEDIATELY SOUTH OF THIS SITE.
8. THE MOST LIKELY POLLUTANTS FROM THE CONSTRUCTION WILL INCLUDE OIL AND/OR FUEL LEAKS FROM THE HEAVY EQUIPMENT ON THE SITE AND CONCRETE FROM THE FOUNDATION AND THE SLAB CONSTRUCTION.
9. TRASH FROM THE CONSTRUCTION WILL BE DEPOSITED IN TRASH BINS/DUMPSTERS AND HAULED TO THE LARIMER COUNTY LANDFILL.
10. ACCORDING TO THE USGS SOIL SURVEY MAPS OF THE AREA, THE HYDROLOGIC SOIL GROUP FOR THIS SITE IS TYPE C.
11. THE SITE WILL BE LANDSCAPED TO STABILIZATION.
12. BASED ON THE SIZE OF THE SITE AND THE AMOUNT OF DISTURBANCE THE MINIMUM \$1,500.00 EROSION CONTROL ESCROW SHOULD BE SUFFICIENT.
13. SOIL AMENDMENTS SHALL BE INCORPORATED IN ALL LANDSCAPE AREAS TO A DEPTH OF 6 INCHES AT A RATE OF 3 CUBIC YARDS PER 1000 SQUARE FEET OF AREA UNLESS 4" OF LOOSE TOPSOIL HAVE BEEN IMPORTED ONTO THE SITE OVER 4" OF LOOSENED SUBGRADE SOILS. REFER TO CITY OF FORT COLLINS CODE SECTIONS 12-130 THROUGH 12-132.
14. SILT FENCE OR STRAW WATLES MAY UTILIZED AROUND THE PERIMETER OF THE SITE AT THE DISCRETION OF THE CONTRACTOR.
14. SEE SHEET C2 FOR ADDITIONAL SEDIMENT AND EROSION CONTROL NOTES.

**City of Fort Collins, Colorado
 UTILITY PLAN Approval**

APPROVED: _____ DATE: _____
City Engineer

CHECKED BY: _____ DATE: _____
Water/Wastewater Utility

CHECKED BY: _____ DATE: _____
Stormwater Utility

CHECKED BY: _____ DATE: _____
Parks & Recreation

CHECKED BY: _____ DATE: _____
Traffic Engineer

CHECKED BY: _____ DATE: _____

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing departments, the City Engineer, or the City of Fort Collins for accuracy and corrections of the calculations. Furthermore, the review does not imply that the quantities of the items on the plans are the final quantities required. The review shall not be construed in any manner as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

APPROV.									
REVISION									
NO.	DATE	BY							
1									
2									
3									
4									
5									
6									
7									

PRELIMINARY

NOT FOR CONSTRUCTION

DESIGNED: BG	DRAWN: DO	CHECKED: BG	PROJECT NO.: 05-04	DATE: 10/26/24
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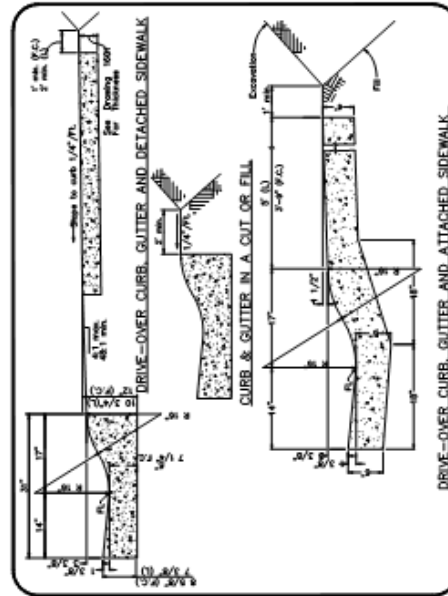
BUCKINGHAM PLACE SECOND FILING

GRADING AND EROSION CONTROL PLAN

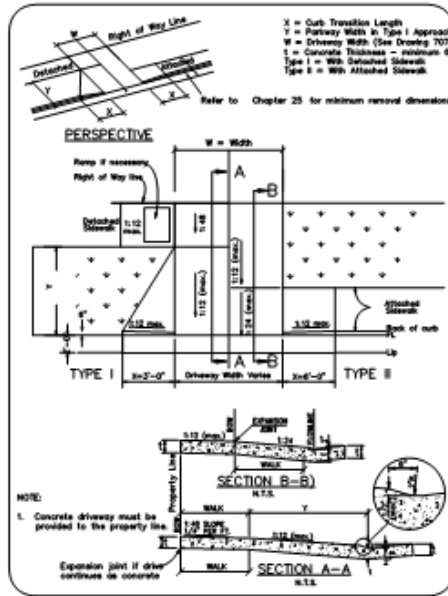
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FORT COLLINS, COLORADO

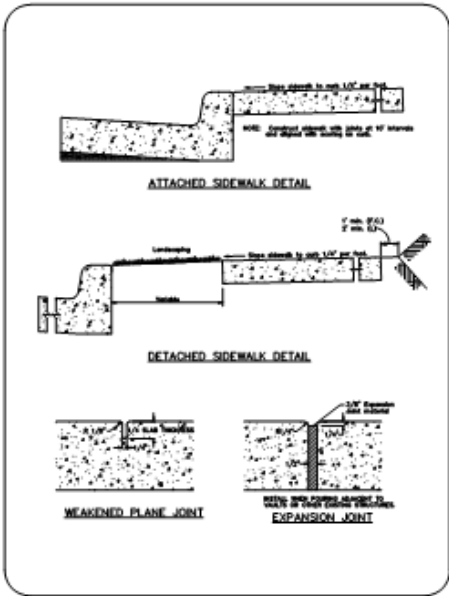
SHEET: **C7 of C11**



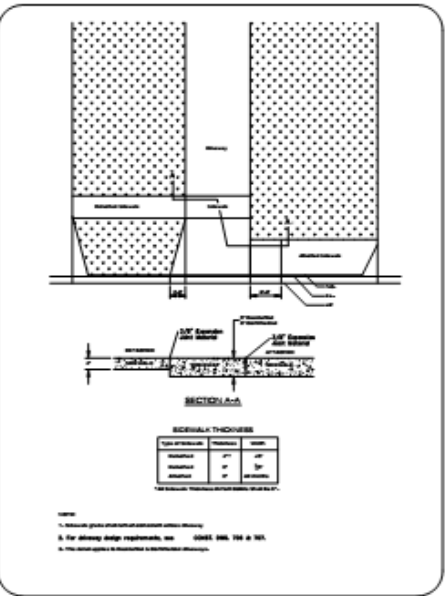
CURB AND GUTTER/SIDEWALK
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 CONSTRUCTION DRAWINGS
 REVISION NO. 1
 DATE: 01/01/00
 DRAWING NO. 702



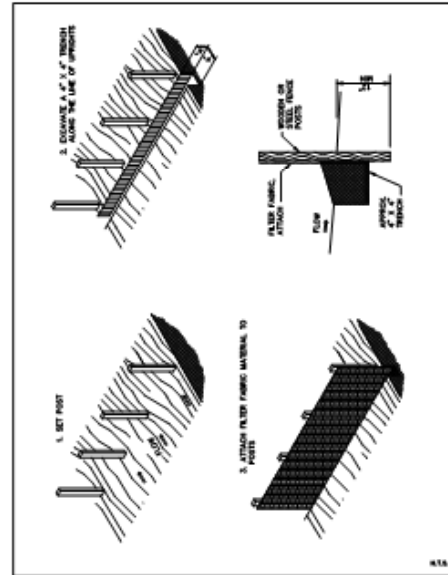
STANDARD DRIVEWAY APPROACH (TYPES I & II)
 LARIMER COUNTY URBAN AREA STREET STANDARDS
 CONSTRUCTION DRAWINGS
 REVISION NO. 1
 DATE: 01/01/00
 DRAWING NO. 706



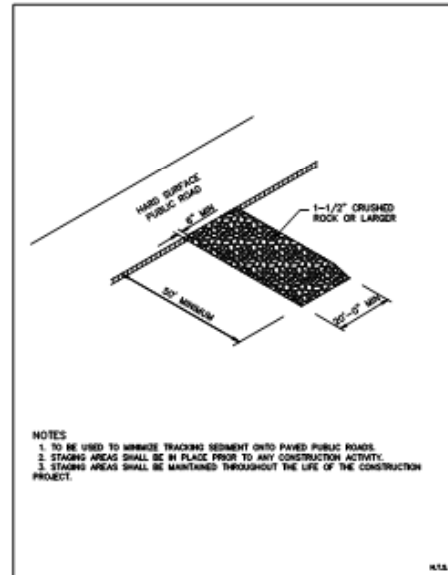
SIDEWALK DETAIL
 LARIMER COUNTY URBAN AREA STREET STANDARDS
 CONSTRUCTION DRAWINGS
 REVISION NO. 1
 DATE: 01/01/01
 DRAWING NO. 1602



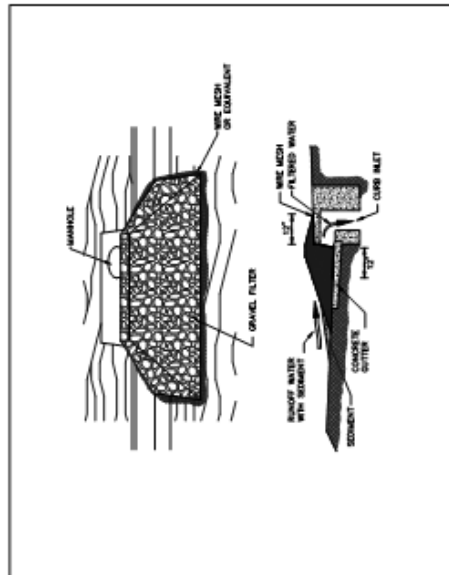
STANDARD SIDEWALK
 LARIMER COUNTY URBAN AREA STREET STANDARDS
 CONSTRUCTION DRAWINGS
 REVISION NO. 1
 DATE: 01/01/00
 DRAWING NO. 1601



APEX ENGINEERING
 DETAIL NO. ECI
 SILT FENCE EROSION BARRIER



APEX ENGINEERING
 DETAIL NO. EC3
 VEHICLE TRACKING CONTROL



APEX ENGINEERING
 DETAIL NO. EC4
 GRAVEL FILTER INLET PROTECTION

NO.	DATE	BY	REVISION	APPROVAL
1				
2				
3				
4				
5				
6				
7				

DESIGNED BY: BG	DRAWN BY: DD	CHECKED BY: BG	PROJECT NO.: 45-04	DATE: 10/2/014
APEX ENGINEERING 908 Liparote Avenue Fort Collins, CO 80521 (970) 219-2834				

BUCKINGHAM PLACE SECOND FILING
 CONSTRUCTION DETAILS - STREET AND SITE
 FORT COLLINS, COLORADO

SHEET: C10 of C11

City of Fort Collins, Colorado UTILITY PLAN Approval	
APPROVED: _____	DATE: _____
CHECKED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
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CHECKED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____

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