



ITEM NO 1
MEETING DATE Oct. 12, 2017
STAFF Clay Frickey

ADMINISTRATIVE HEARING OFFICER

STAFF REPORT

PROJECT: Christian Brotherd Automotive, PDP170018

APPLICANT: Todd Rand
Baseline Engineering
4007 S Lincoln Ave.
Suite 405
Loveland CO, 80537

OWNERS: Academy Court Enterprise LLC
5412 Vardon Way
Fort Collins, CO 80528

PROJECT DESCRIPTION:

This is a request for a Project Development Plan to construct a vehicle minor repair, servicing and maintenance establishment at the northeast corner of Academy Court and Prospect Road (parcel #8718413001). The building will be one-story and contain 5,140 sq. ft. of floor area. The proposed site plan shows 26 parking spaces. The site is located in the Industrial (I) zone district .

RECOMMENDATION: Staff recommends approval of Christian Brothers Automotive, PDP170018.

EXECUTIVE SUMMARY:

Staff finds the proposed Christian Brothers Automotive Project Development Plan complies with the applicable requirements of the City of Fort Collins Land Use Code (LUC), more specifically:

- The Project Development Plan complies with the process located in Division 2.2 – Common Development Review Procedures for Development Applications of Article 2 – Administration.
- The Modification of Standard to Section 4.28(E)(3)(a)(2) that is proposed with this Project Development Plan meets the applicable requirements of Section 2.8.2(H), in that the granting of the Modification would not be detrimental to the

public good and the proposal submitted promotes the general purpose of the code standard equal to or better than would a compliant plan.

- The Project Development Plan complies with relevant standards of Article 3 – General Development Standards.
- The Project Development Plan complies with relevant standards located in Division 4.28 Industrial (I) of Article 4 – Districts, assuming the modification to 4.28(E)(3)(a)(2) is approved.

COMMENTS:

1. Background

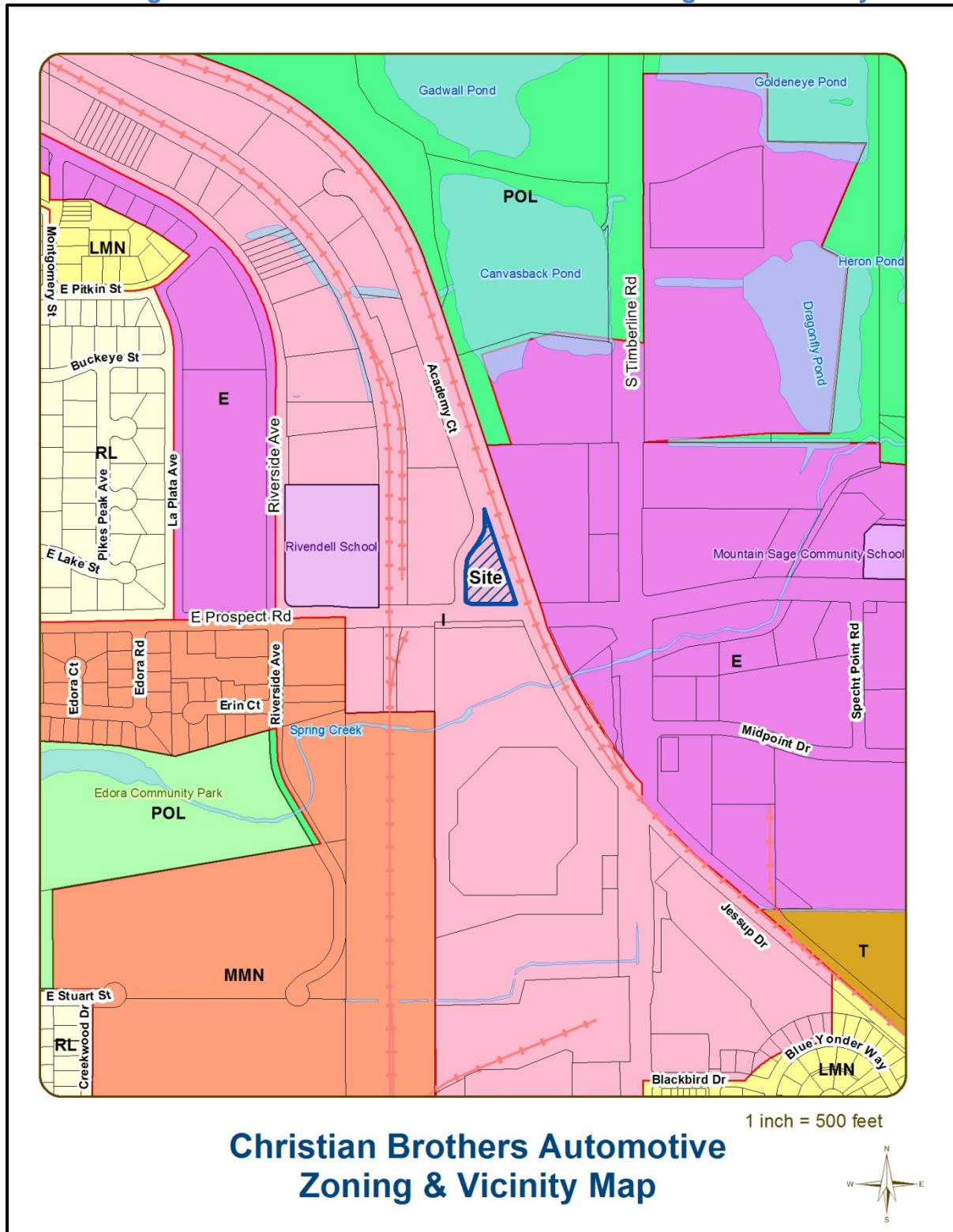
The property annexed into the City as part of the Upland Annex in April, 1984. The lot was platted as part of the Upland Prospect Business Park PUD Replat in 1994. The lot has sat vacant since.

The surrounding zoning and land uses are as follows:

Direction	Zone District	Existing Land Uses
North	Industrial (I), Public Open Lands (POL)	Railroad right-of-way, Kingfisher Natural Area
South	Industrial (I)	Coterie Natural Area
East	Employment (E)	Retail
West	Industrial (I), Employment (E)	Railroad right-of-way, school, office

A zoning and site vicinity map is presented on the following page.

Figure 1: Christian Brothers Automotive Zoning & Site Vicinity



2. **Compliance with Section 2.8.2(H) of the Land Use Code - Modification of Standards**

Modification Description:

The applicant requests a modification to Section 4.28(E)(3)(a)(2) – *Site Design – Screening* to provide less than a 30-foot-deep landscape buffer yard along Prospect Rd.

Land Use Code Standard Proposed to be Modified (areas underlined and bolded for emphasis):

Land Use Code 4.28(E)(3)(a)(2):

A minimum thirty-foot deep landscaped yard shall be provided along all arterial streets, and along any district boundary line that does not adjoin a residential land use. If a district boundary line abuts upon or is within a street right-of-way, then the required landscaped yard shall commence at the street right-of-way line on the district side of the street, rather than at the district boundary line. This requirement shall not apply to development plans that comply with the standards contained in Section 3.5.3 of this Code.

Land Use Code Modification Criteria:

“The decision maker may grant a modification of standards only if it finds that the granting of the modification would not be detrimental to the public good, and that:

(1) the plan as submitted will promote the general purpose of the standard for which the modification is requested equally well or better than would a plan which complies with the standard for which a modification is requested; or

(2) the granting of a modification from the strict application of any standard would, without impairing the intent and purpose of this Land Use Code, substantially alleviate an existing, defined and described problem of city-wide concern or would result in a substantial benefit to the city by reason of the fact that the proposed project would substantially address an important community need specifically and expressly defined and described in the city's Comprehensive Plan or in an adopted policy, ordinance or resolution of the City Council, and the strict application of such a standard would render the project practically infeasible; or

(3) by reason of exceptional physical conditions or other extraordinary and exceptional situations, unique to such property, including, but not limited to, physical conditions such as exceptional narrowness, shallowness or topography,

or physical conditions which hinder the owner's ability to install a solar energy system, the strict application of the standard sought to be modified would result in unusual and exceptional practical difficulties, or exceptional or undue hardship upon the owner of such property, provided that such difficulties or hardship are not caused by the act or omission of the applicant; or

(4) the plan as submitted will not diverge from the standards of the Land Use Code that are authorized by this Division to be modified except in a nominal, inconsequential way when considered from the perspective of the entire development plan, and will continue to advance the purposes of the Land Use Code as contained in Section 1.2.2.

Any finding made under subparagraph (1), (2), (3) or (4) above shall be supported by specific findings showing how the plan, as submitted, meets the requirements and criteria of said subparagraph (1), (2), (3) or (4).

Applicant's Justification for the Modification:

We propose a 25-foot buffer yard between the building and Prospect. Within the buffer, we are providing enhanced landscaping. The design of the building exceeds the standards in the zone so the need to buffer is reduced.

Staff Finding:

Staff finds that the request for a Modification of Standard to Section 4.28(E)(3)(a)(2) is justified by the applicable standards in 2.8.2(H)(1).

- A. The granting of the Modification would not be detrimental to the public good
- B. The project design satisfies 2.8.2(H)(1): *the plan as submitted will promote the general purpose of the standard for which the modification is requested equally well or better than would a plan which complies with the standard for which a modification is requested.*

The purpose of this fence standard is to screen industrial buildings from arterial streets. Most industrial buildings typically have little visual interest and so the landscape buffer yard provides a buffer between the street and low-interest industrial buildings. Since the plan does not comply with Section 3.5.3 of the Land Use Code by virtue of having a parking lot between the building and the Academy Ct. right-of-way, this standard applies.

Instead of the standard 30-foot buffer yard, the applicant proposes a 25-foot-wide buffer yard between the building and Prospect Rd. Ten (10) Mugo Pines screen the building from the street, which is above and beyond what is required by the

Land Use Code. Mugo Pines also provide year-round screening, which is another benefit. The proposed building uses high-quality materials that exceed the Land Use Code. The proposed use, vehicle minor repair, servicing and maintenance establishments, is not an industrial use. Vehicle minor repair, servicing and maintenance establishments may locate in five other zone districts within the City. In commercial zones, a facility such as this would not need a 30-foot buffer yard. This buffer yard standard did not contemplate a use such as this. Due to the enhanced landscaping, high quality building design, and type of use staff finds this proposal equal to or better than a compliant plan.

3. Compliance with Article 3 of the Land Use Code – General Development Standards:

The project complies with all applicable General Development Standards as follows:

A. *Section 3.2.1(D) – Tree Planting Standards*

All developments shall establish groves and belts of trees along all city streets, in and around parking lots, and in all landscape areas that are located within 50' of any building or structure in order to establish at least a partial urban tree canopy. The proposed landscape plan shows street trees planted at appropriate intervals, canopy shade trees planted in bulbouts adjacent to parking lots, and ornamental trees planted close to buildings to provide screening and a partial urban tree canopy, which meets this code standard.

B. *Section 3.2.1(E)(3)(b)(2) – Water Budget*

Annual water use shall not exceed 15 gallons/square foot over the site. The water budget shown on the landscape plan indicates the landscape area will require 2.01 gallons/square foot, in accordance with this standard.

C. *Section 3.2.1(E)(4) – Parking Lot Perimeter Landscaping*

The perimeter of parking lots are required to have trees planted at a ratio of 1 per 25 lineal feet along a public street and 1 per 40 lineal feet along a side lot line and parking setback area. Parking lots must also have screening to block at least 75% of light from vehicle headlights. The proposed landscape plan shows shrub beds extending the full length of the parking area along Academy Ct. that provide screening from the shine

of vehicle headlights. The parking area is flanked by canopy shade trees that provide ample tree cover for the perimeter of the parking lot, meeting this code standard.

D. *Section 3.2.1(E)(5) – Parking Lot Interior Landscaping*

6% of the interior space of all parking lots with less than 100 spaces shall consist of landscaping. The parking area has bulb outs at the north end with evergreen shrubs and a canopy shade tree, which satisfies this code requirement.

E. *Section 3.2.2(C)(4)(b) - Bicycle Parking Space Requirements*

The minimum number of bicycle parking spaces required for the vehicle servicing and maintenance use is four spaces. All of the bicycle parking spaces may be provided via fixed racks. The applicant proposes four spaces via fixed rack in accordance with the standard.

F. *Section 3.2.2(C)(5) - Walkways*

Walkways must be provided to link sidewalks with building entries through parking lots. These walkways must also provide direct connections to off-site pedestrian and bicycle destinations. Christian Brothers Automotive provides a connecting walkway that connects the front door to the sidewalk along Prospect Rd. in accordance with the standard.

G. *Section 3.2.2(D)(1) - Access and Parking Lot Requirements; Pedestrian/Vehicle Separation*

To the maximum extent feasible, pedestrians and vehicles shall be separated through provision of a sidewalk or walkway. Where complete separation of pedestrian and vehicles is not feasible, potential hazards shall be minimized by using landscaping, bollards, special paving, lighting, and other means to clearly delineate pedestrian areas. Christian Brothers Automotive separates pedestrians from vehicles by providing a sidewalk separated from the driving and parking area via curb.

H. *Section 3.2.2(E) - Parking Lot Layout*

The proposed parking lot layout is consistent with requirements of the Land Use Code in regards to circulation routes, orientation, landscaped islands, and points of conflict.

I. Section 3.2.2(J) - *Setbacks*

The proposed parking lot is setback further than the 15-foot minimum from an arterial street, 10-foot minimum from non-arterial streets, and 5-foot minimum along a lot line required per the Land Use Code.

J. Section 3.2.2(K)(2) – *Nonresidential Parking Requirements*

Vehicle service and maintenance uses must provide a minimum of 2 spaces per 1,000 square feet and a maximum of 5 spaces per 1,000 square feet. For a 5,104 square foot building, this results in a minimum of 10 spaces and maximum of 25 spaces. This code section allows a 20% increase to the maximum parking ratio if there is no on-street parking available adjacent to the property. Neither Prospect Rd. nor Academy Ct. have on-street parking. This means the maximum parking for this project is 30 spaces. The proposed site plan shows 26 spaces, which meets the standard.

K. Section 3.2.2(K)(5) - *Handicap Parking*

Parking lots with 26-50 spaces must provide at least 2 handicap parking spaces with one van accessible with an 8' access aisle. The parking lot proposed contains two handicap accessible spaces with one van accessible.

L. Section 3.2.3 - *Solar Access, Orientation, Shading*

All developments must be designed to accommodate active and/or passive solar installations and must not deny adjacent properties access to sunshine. The proposed building is designed and located to minimize the casting of shadows on adjacent properties and could accommodate future active and/or passive solar installations.

M. Section 3.2.4 - *Site Lighting*

The proposed lighting plan is consistent with the requirements of the Land Use Code in regards to the general standard, lighting levels, and design standards.

N. *Section 3.2.5 - Trash and Recycling Enclosures*

Trash and recycling enclosures must be provided in locations abutting refuse collection or storage areas, designed to allow walk-in access without having to open the main service gate, screened from public view, and constructed on a concrete pad. The proposed trash and recycling enclosure design satisfies the standards.

O. *Section 3.5.1(E) - Building Materials*

All proposed buildings shall use similar materials to existing buildings in the neighborhood or use similar architectural characteristics if dissimilar materials are proposed. Christian Brothers proposes a building with a predominantly brick and stone façade. Most of the other buildings in the area are built out of stucco, corrugated metal, and concrete masonry units. The proposed materials for Christian Brothers exceeds the quality of the other buildings in the area, meeting this standard.

P. *Section 3.5.1(I) - Outdoor Storage Areas/Mechanical Equipment*

The proposed plan is consistent with the requirements of the Land Use Code in regards to the location of outdoor storage, screening of storage areas, and screening of rooftop mechanical equipment from public view.

Q. *Section 3.6.6 – Emergency Access*

For the Christian Brothers Automotive site, an emergency access easement is proposed that runs through the access drive on the north side of the site. This satisfies the requirements for the Poudre Fire Authority.

4. **Compliance with Article 4 of the Land Use Code – Industrial (I), Division 4.28:**

The project complies with all applicable Article 4 standards as follows:

A. *Section 4.28(B)(2) – Permitted Uses*

The proposed uses, office and vehicle minor repair, are permitted in the Industrial zone district and are consistent with the district's intent to provide a wide range of commercial and industrial operations.

B. *Section 4.28(D)(1) – Dimensional Standards*

Non-residential structures are limited to four stories in height. The Project Development Plan/Final Plan proposes a one-story structure.

C. Section 4.28(E)(2)(b) – Development Standards – Orientation

Buildings shall be sited so that a building face abuts upon the minimum landscape yard for at least 30% of the building frontage along arterial streets. 100% of the building face along Prospect Rd. abuts the landscape yard, which meets this standard.

D. Section 4.28(E)(2)(c) – Development Standards – Building Character and Color

New building color shades shall be neutral, with a medium or dark color range, and not white, bright or reflective. The proposed materials are all neutral and are not white, bright or reflective.

E. Section 4.28(E)(3)(b) – Storage and Operational Areas

Storage, loading and work operations must be screened from view along district boundary lines and public streets in the I District. The proposed site plan shows a 6-foot high solid fence surrounding the storage, loading and work area.

4. Findings of Fact/Conclusion:

In evaluating the request for Christian Brothers Automotive, PDP170018, Staff makes the following findings of fact:

- A. The Project Development Plan complies with the process located in Division 2.2 – Common Development Review Procedures for Development Applications of Article 2 – Administration.
- B. The Modification of Standard to Section 4.28(E)(3)(a)(2) that is proposed with this Project Development Plan meets the applicable requirements of Section 2.8.2(H), in that the granting of the Modification would not be detrimental to the public good and the proposal submitted promotes the general purpose of the code standard equal to or better than would a compliant plan.

C. The Project Development Plan complies with relevant standards of Article 3 – General Development Standards.

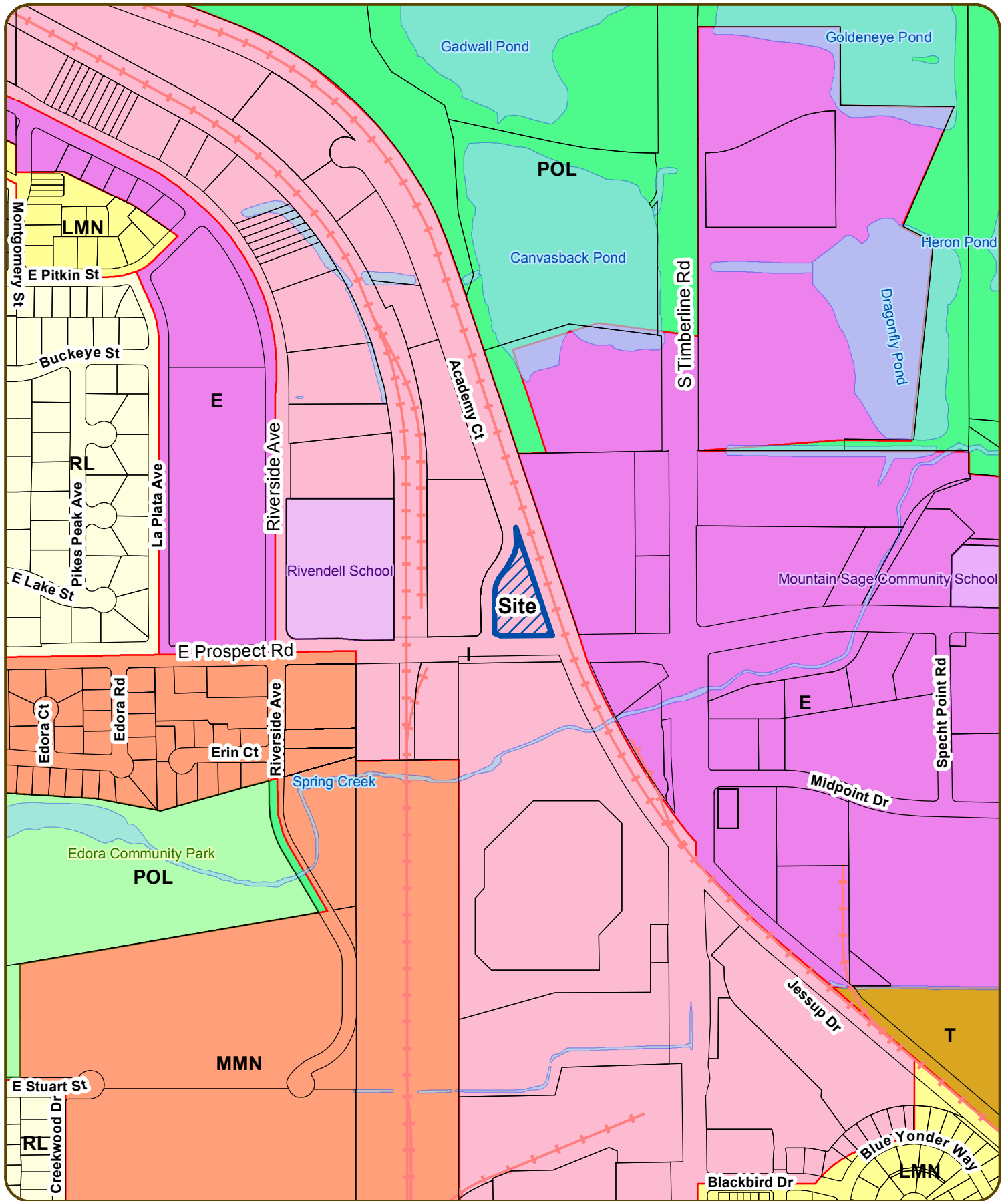
D. The Project Development Plan complies with relevant standards located in Division 4.28 Industrial (I) of Article 4 – Districts.

RECOMMENDATION:

Staff recommends approval of Christian Brothers Automotive, PDP170018.

ATTACHMENTS:

1. Zoning & Site Vicinity Map
2. Christian Brothers Automotive Planning Document Set (Site Plan, Landscape Plan, Elevations & Photometric Plan)



1 inch = 500 feet

Christian Brothers Automotive Zoning & Vicinity Map



SITE PLAN NOTES:

- THE PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FINAL PLANS. AMENDMENTS TO THE PLANS MUST BE REVIEWED AND APPROVED BY THE CITY PRIOR TO THE IMPLEMENTATION OF ANY CHANGES TO THE PLANS.
- REFER TO FINAL UTILITY PLANS FOR EXACT LOCATIONS AND CONSTRUCTION INFORMATION FOR STORM DRAINAGE STRUCTURES, UTILITY MAINS AND SERVICES, PROPOSED TOPOGRAPHY, STREET IMPROVEMENTS.
- REFER TO THE SUBDIVISION PLAT AND UTILITY PLANS FOR EXACT LOCATIONS, AREAS AND DIMENSIONS OF ALL EASEMENTS, LOTS, TRACTS, STREETS, WALKS AND OTHER SURVEY INFORMATION.
- ALL ROOFTOP AND GROUND MOUNTED MECHANICAL EQUIPMENT MUST BE SCREENED FROM VIEW FROM ADJACENT PROPERTY AND PUBLIC STREETS. IN CASES WHERE BUILDING PARAPETS DO NOT ACCOMPLISH SUFFICIENT SCREENING, THEN FREE-STANDING SCREEN WALLS MATCHING THE PREDOMINANT COLOR OF THE BUILDING SHALL BE CONSTRUCTED. OTHER MINOR EQUIPMENT SUCH AS CONDUNIT, METERS AND PLUMBING VENTS SHALL BE SCREENED OR PAINTED TO MATCH SURROUNDING BUILDING SURFACES.
- ALL CONSTRUCTION WITH THIS DEVELOPMENT PLAN MUST BE COMPLETED IN ONE PHASE UNLESS A PHASING PLAN IS SHOWN WITH THESE PLANS.
- ALL EXTERIOR LIGHTING PROVIDED SHALL COMPLY WITH THE FOOT-CANDLE REQUIREMENTS IN SECTION 3.2.4 OF THE LAND USE CODE AND SHALL USE A CONCEALED, FULLY SHIELDED LIGHT SOURCE WITH SHARP CUT-OFF CAPABILITY SO AS TO MINIMIZE UP-LIGHT, SPILL LIGHT, GLARE AND UNNECESSARY DIFFUSION.
- SIGNAGE AND ADDRESSING ARE NOT PERMITTED WITH THIS PLANNING DOCUMENT AND MUST BE APPROVED BY SEPARATE CITY PERMIT PRIOR TO CONSTRUCTION. SIGNS MUST COMPLY WITH CITY SIGN CODE UNLESS A SPECIFIC VARIANCE IS GRANTED BY THE CITY.
- FIRE HYDRANTS MUST MEET OR EXCEED POUDE FIRE AUTHORITY STANDARDS. ALL BUILDINGS MUST PROVIDE AN APPROVED FIRE EXTINGUISHING SYSTEM.
- ALL BIKE RACKS PROVIDED MUST BE PERMANENTLY ANCHORED.
- ALL SIDEWALKS AND RAMPS MUST CONFORM TO CITY STANDARDS. ACCESSIBLE RAMPS MUST BE PROVIDED AT ALL STREET AND DRIVE INTERSECTIONS AND AT ALL DESIGNATED ACCESSABLE PARKING SPACES. ACCESSABLE PARKING SPACES MUST SLOPE NO MORE THAN 1:48 IN ANY DIRECTION. ALL ACCESSIBLE ROUTES MUST SLOPE NO MORE THAN 1:20 IN DIRECTION OF TRAVEL AND WITH NO MORE THAN 1:48 CROSS SLOPE.
- COMMON OPEN SPACE AREAS AND LANDSCAPING WITHIN RIGHT OF WAYS, STREET MEDIANS, AND TRAFFIC CIRCLES ADJACENT TO COMMON OPEN SPACE AREAS ARE REQUIRED TO BE MAINTAINED BY A PROPERTY OWNERS' ASSOCIATION. THE PROPERTY OWNERS' ASSOCIATION IS RESPONSIBLE FOR SNOW REMOVAL ON ALL ADJACENT STREET SIDEWALKS AND SIDEWALKS IN COMMON OPEN SPACE AREAS.
- PRIVATE CONDITIONS, COVENANTS, AND RESTRICTIONS (CC&R'S), OR ANY OTHER PRIVATE RESTRICTIVE COVENANT IMPOSED ON LANDOWNERS WITHIN THE DEVELOPMENT, MAY NOT BE CREATED OR ENFORCED HAVING THE EFFECT OF PROHIBITING OR LIMITING THE INSTALLATION OF XERISCAPE LANDSCAPING, SOLAR/PHOTO-VOLTAIC COLLECTORS (IF MOUNTED FLUSH UPON ANY ESTABLISHED ROOF LINE), CLOTHES LINES (IF LOCATED IN BACK YARDS), ODOR-CONTROLLED COMPOST BINS, OR WHICH HAVE THE EFFECT OF REQUIRING THAT A PORTION OF ANY INDIVIDUAL LOT BE PLANTED IN TURF GRASS.
- ANY DAMAGED CURB, GUTTER AND SIDEWALK EXISTING PRIOR TO CONSTRUCTION, AS WELL AS STREETS, SIDEWALKS, CURBS AND GUTTERS, DESTROYED, DAMAGED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT, SHALL BE REPLACED OR RESTORED TO CITY OF FORT COLLINS STANDARDS AT THE DEVELOPER'S EXPENSE PRIOR TO THE ACCEPTANCE OF COMPLETED IMPROVEMENTS AND/OR PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY.
- FIRE LANE MARKING: A FIRE LANE MARKING PLAN MUST BE REVIEWED AND APPROVED BY THE FIRE OFFICIAL PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY. WHERE REQUIRED BY THE FIRE CODE OFFICIAL, APPROVED SIGNS OR OTHER APPROVED NOTICES THAT INCLUDE THE WORDS NO PARKING FIRE LANE SHALL BE PROVIDED FOR FIRE APPARATUS ACCESS ROADS TO IDENTIFY SUCH ROADS OR PROHIBIT THE OBSTRUCTION THEREOF. THE MEANS BY WHICH FIRE LANES ARE DESIGNATED SHALL BE MAINTAINED IN A CLEAN AND LEGIBLE CONDITION AT ALL TIMES AD BE REPLACED OR REPAIRED WHEN NECESSARY TO PROVIDE ADEQUATE VISIBILITY.
- PREMISE IDENTIFICATION: AN ADDRESSING PLAN IS REQUIRED TO BE REVIEWED AND APPROVED BY THE CITY AND POUDE FIRE AUTHORITY PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY. UNLESS THE PRIVATE DRIVE IS NAMED, MONUMENT SIGNAGE MAY BE REQUIRED TO ALLOW WAY-FINDING. ALL BUILDINGS SHALL HAVE ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE, VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY, AND POSTED WITH A MINIMUM OF SIX-INCH NUMERALS ON A CONTRASTING BACKGROUND. WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE.

LEGAL DESCRIPTION:

BLOCK ONE, UPLANDS PROSPECT BUSINESS PARK P.U.D.

OWNER'S CERTIFICATION OF APPROVAL:

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

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUR HANDS AND SEALS THIS THE ____ DAY OF _____, 20__

NOTARIAL CERTIFICATE

STATE OF COLORADO)

COUNTY OF _____ss

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY _____ THIS ____ DAY OF _____, 20__

My commission expires: _____

Notary Public

PLANNING APPROVAL:

BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO
THIS THE ____ DAY OF _____, 20__

DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SEERVICES

LAND-USE STATISTICS

EXISTING ZONING:	I – INDUSTRIAL	
GROSS LAND AREA:	49,954 S.F.	1.147 AC.
NUMBER OF BUILDINGS:	1	
LAND USE:	LIGHT AUTOMOTIVE REPAIR	
TOTAL BUILDING GROSS S.F.:	5,140 S.F.	
TOTAL STORIES:	1	
MAXIMUM BUILDING HEIGHT : 24 FEET FROM THE HIGHEST 1ST FLOOR FINISHED FLOOR ELEVATION		

GROSS AREA COVERAGE

	SQUARE FEET	ACRES	% OF
BUILDING FOOTPRINT:	5,140	0.1180	10.29%
LANDSCAPE:	30,102	0.6910	60.26%
RIPRAP	718	0.0165	1.44%
PAVED DRIVE AND PARKING:	13,863	0.3183	27.75%
SIDEWALKS/HARDSCAPE:	131	0.0030	0.26%
TOTAL AREA:	49,954	1.1468	100.0%

OFF-STREET PARKING:

REQUIRED PER LUC SECTION SECTION 3,2,2(K)(2)(a):

	MINIMUM	MAXIMUM
VEHICLE SERVICE AND MAINTENANCE	2 SPACES PER 1,000 S.F.	5 SPACES PER 1,000 S.F.
TOTAL SPACES	10	25

PROVIDED: 26 SPACES INCLUDING 2 ACCESSIBLE SPACES
(1 SPACE ALLOWED DUE TO NO PARKING ON ACADEMY CT)

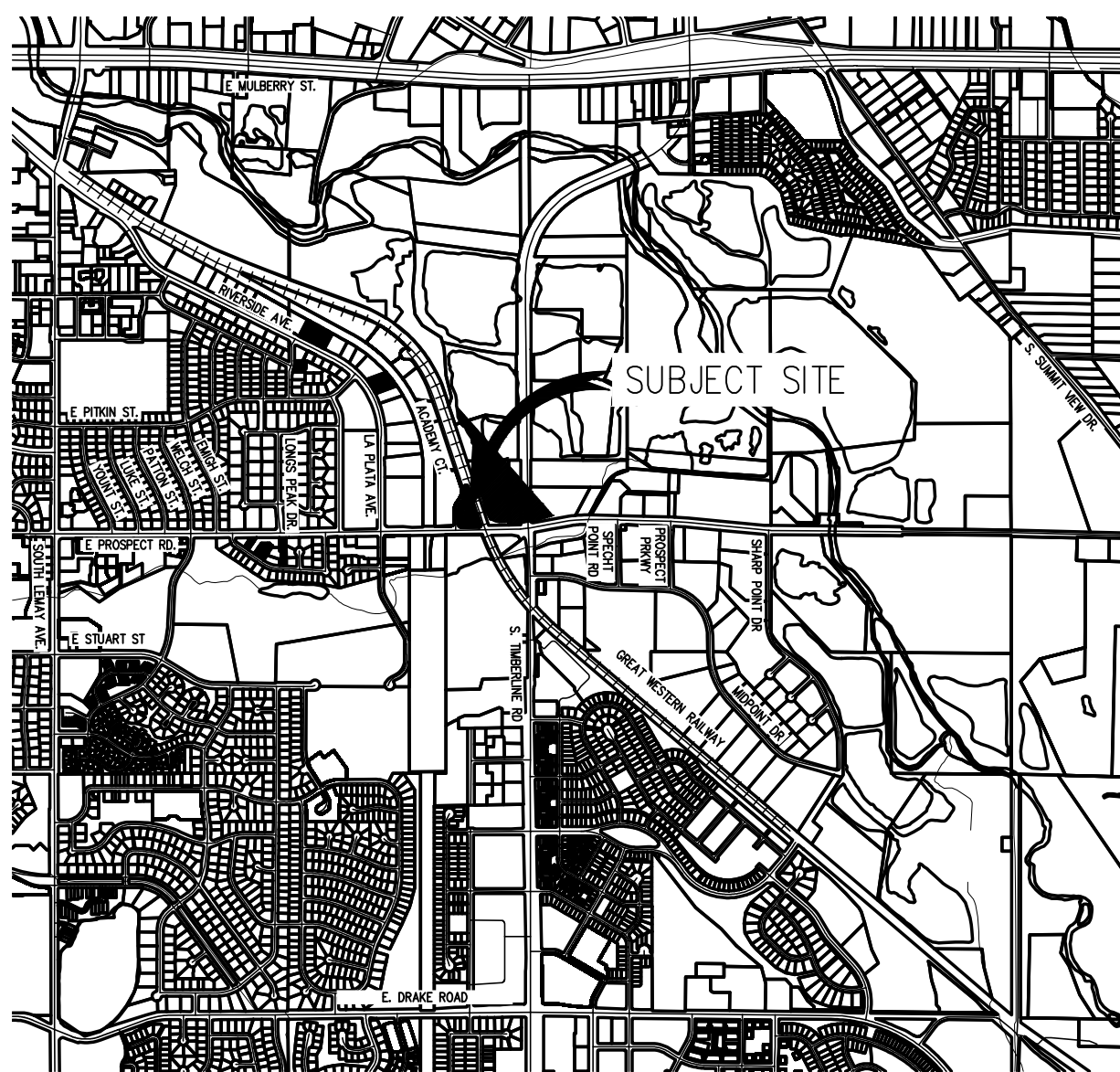
BIKE PARKING:

REQUIRED:

INDUSTRIAL: EMPLOYEE PARKING = 4 SPACES

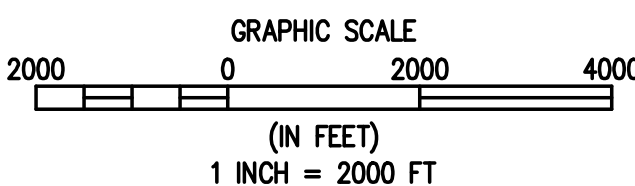
PROVIDED:

FIXED RACK: 4 SPACES



VICINITY MAP

SCALE: 1"=2000'

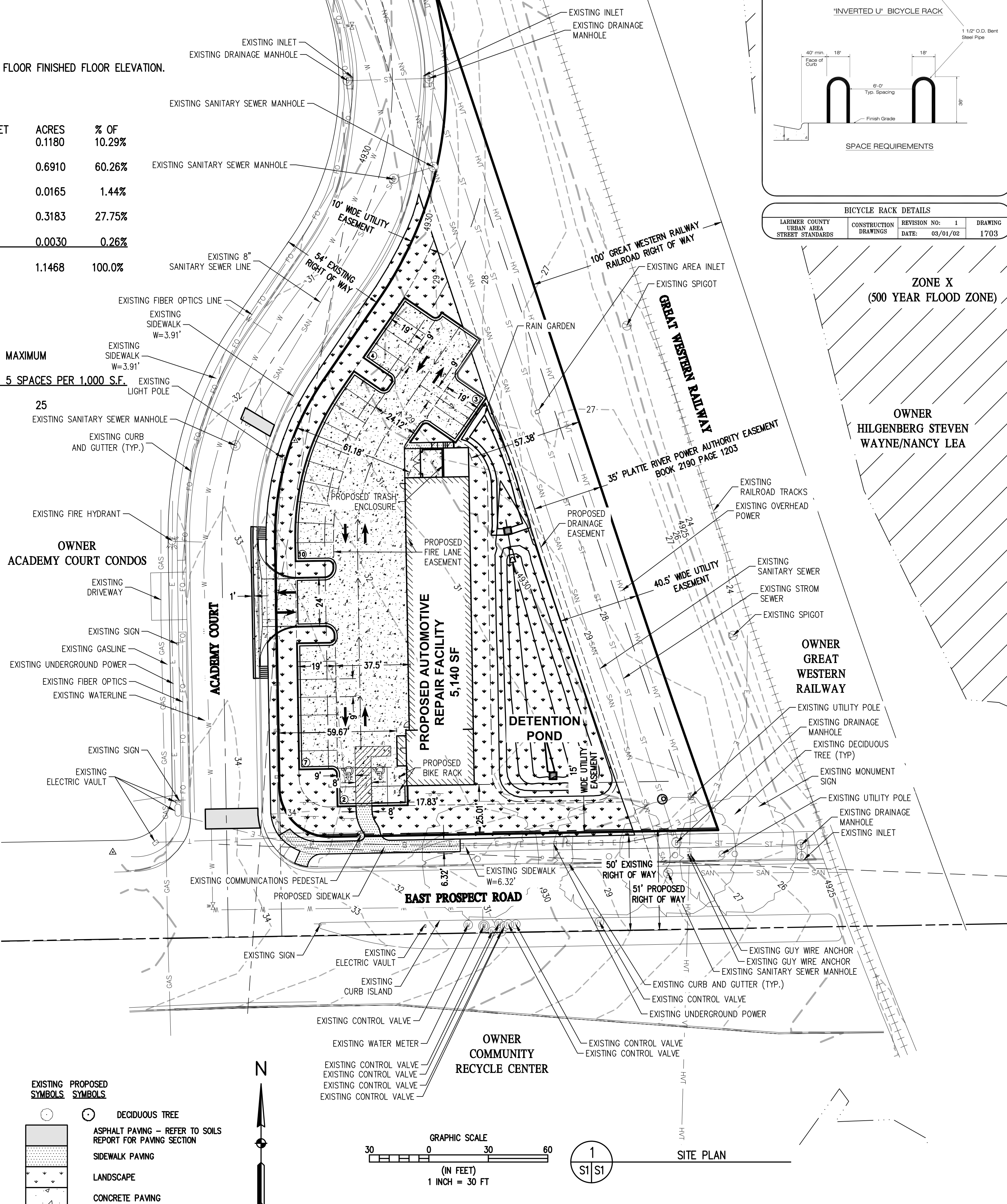


LEGEND

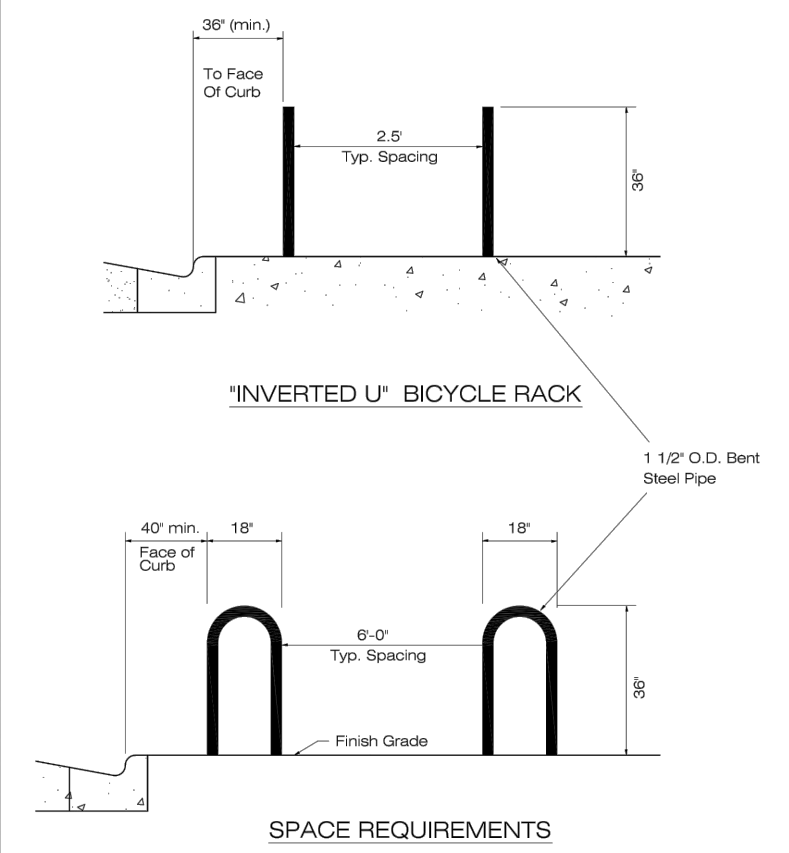
EXISTING LINETYPES	PROPOSED LINETYPES	
---	---	MAJOR CONTOUR (5' INTERVAL)
---	---	MINOR CONTOUR (1' INTERVAL)
---	---	PROPERTY BOUNDARY
---	---	EASEMENT

EXISTING PROPOSED SYMBOLS SYMBOLS

	DECIDUOUS TREE
	ASPHALT PAVING - REFER TO SOILS REPORT FOR PAVING SECTION
	SIDEWALK PAVING
	LANDSCAPE
	CONCRETE PAVING



BICYCLE RACK DETAILS			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1 DATE: 05/01/02	DRAWING 1703



DESIGNED BY	TGR
DRAWN BY	JDD
CHECKED BY	NJN

DATE	5/17/2017
PREPARED BY	7/28/2017
REVISION	8/30/2017
Submit 1	
Submit 2	
Submit 3	

CHRISTIAN BROTHERS AUTOMOTIVE
CHRISTIAN BROTHERS AUTOMOTIVE
BLOCK ONE, UPLAND'S PROSPECT BUSINESS PARK P.U.D.
SITE PLAN

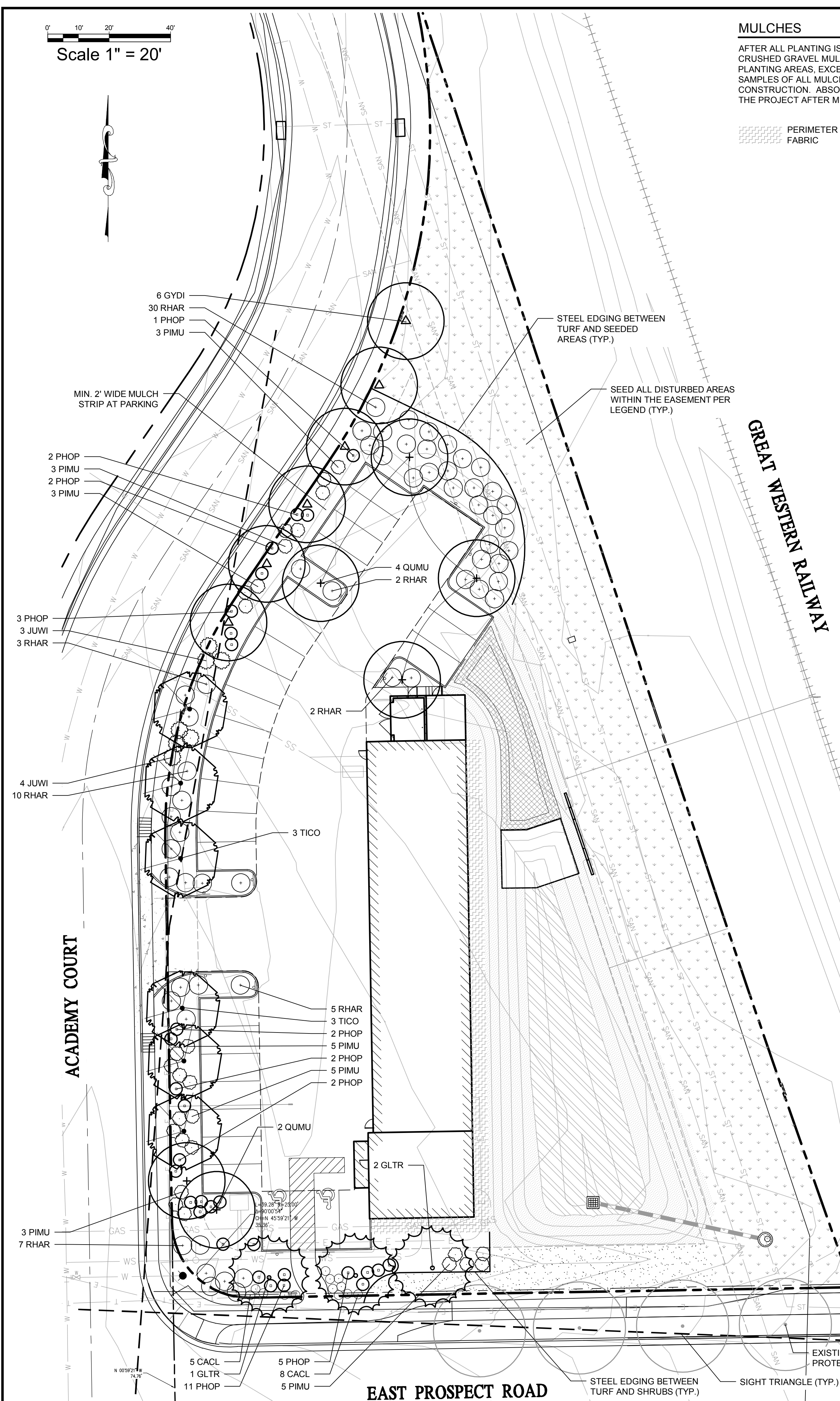
PREPARED UNDER THE DIRECT SUPERVISION OF

PRELIMINARY NOT FOR CONSTRUCTION

FOR AND ON BEHALF OF	5/17/2017
INITIAL SUBMITTAL	5/17/2017
DRAWING SIZE	24" x 36"
SURVEY FIRM	SURVEY DATE
Submit 1	xx/xx/xx
JOB NO.	C015298
DRAWING NAME	15298 - Titleblock_POP Site.dwg
SHEET	1 OF 1

0' 10' 20' 40'

Scale 1" = 20'



MULCHES

AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 4" THICK LAYER OF 1"-2" CRUSHED GRAVEL MULCH (COLOR TO MATCH BUILDING) OVER LANDSCAPE FABRIC IN ALL PLANTING AREAS, EXCEPT OVER SEED AND AS NOTED BELOW. CONTRACTOR SHALL SUBMIT SAMPLES OF ALL MULCHES TO LANDSCAPE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO CONSTRUCTION. ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED.

PERIMETER ROCK MULCH - 4" THICK LAYER OF 1"-2" COBBLE OVER LANDSCAPE FABRIC

CITY TREE PROTECTION NOTES

- ALL EXISTING TREES WITHIN THE LIMITS OF THE DEVELOPMENT AND WITHIN ANY NATURAL AREA BUFFER ZONES SHALL REMAIN AND BE PROTECTED UNLESS NOTED ON THESE PLANS FOR REMOVAL.
 - 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. TREE PRUNING AND REMOVAL SHALL BE PERFORMED BY A BUSINESS THAT HOLDS A CURRENT CITY OF FORT COLLINS ARBORIST LICENSE WHERE REQUIRED BY CODE.
 - 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 FUTURE 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 SCALING FROM TREE DIAMETER AT BREAST HEIGHT AS DESCRIBED IN THE CHART BELOW:
- | TREE DBH (INCHES) | AUGUR DISTANCE FROM FACE OF TREE (FT.) |
|-------------------|--|
| 0-2 | 1 |
| 3-4 | 2 |
| 5-9 | 5 |
| 10-14 | 10 |
| 15-19 | 12 |
| OVER 19 | 15 |
- ALL TREE REMOVAL SHOWN SHALL BE COMPLETED OUTSIDE OF THE SONGBIRD NESTING SEASON (FEB - JULY 31) OR CONDUCT A SURVEY OF TREES ENSURING NO ACTIVE NESTS IN THE AREA.

CITY NATIVE SEED MIX NOTES

- PREPARE SOIL AS NECESSARY AND APPROPRIATE FOR NATIVE SEED MIX SPECIES THROUGH AERATION AND ADDITION OF AMENDMENTS, THEN SEED IN TWO DIRECTIONS TO DISTRIBUTE SEED EVENLY OVER ENTIRE AREA.
- IF CHAINS ARE TO BE MADE TO SEED MIX BASES, THEY SHALL NOT BE USED. APPROVAL MUST BE PROVIDED BY CITY ENVIRONMENTAL PLANNER.
- APPROPRIATE NATIVE SEEDING EQUIPMENT WILL BE USED (STANDARD TURF SEEDING EQUIPMENT OR AGRICULTURAL DISBURSERS SHALL NOT BE USED).
- DRILL SEED APPLICATION RECOMMENDED PER SPECIFIED APPLICATION RATE TO NO MORE THAN 1/2 INCH DEPTH. FOR BROADCAST SEEDING INSTEAD OF RILL SEEDING METHOD DOUBLE SPECIFIED APPLICATION RATE. REFER TO NATIVE SEED MIX TABLE FOR SPECIES, PERCENTAGES AND APPLICATION RATES.
- TREAT NATIVE SEED MIX AREA PRIOR TO INSTALLATION OF SEED WITH APPROPRIATE HERBICIDE TO PROGRESSIVELY MITIGATE HERBACEOUS WEED SPECIES GROWTH DURING ESTABLISHMENT PERIOD THEN AFTER APPROPRIATE TIME PERIOD APPLY NATIVE SEED AS CALLED FOR ON APPROVED PLANS.
- AFTER SEEDING THE AREA SHALL BE COVERED WITH CRIMPED STRAW OR OTHER APPROPRIATE METHODS AND PROVIDED TEMPORARY IRRIGATION UNTIL SEED IS ESTABLISHED.
- CONTRACTOR SHALL MONITOR SEEDED AREA FOR PROPER IRRIGATION, EROSION CONTROL, GERMINATION AND RESEEDING AS NEEDED TO ESTABLISH COVER.
- THE APPROVED SEED MIX AREA IS INTENDED TO BE MAINTAINED IN A NATURAL LIKE LANDSCAPE AESTHETIC. IF AND WHEN MOWING OCCURS IN NATIVE GRASS SEED MIX AREAS DO NOT MOW LOWER THAN 6 TO 8 INCHES IN HEIGHT TO AVOID INHIBITING NATIVE PLANT GROWTH.
- NATIVE SEED AREA WILL BE CONSIDERED ESTABLISHED WHEN SEVENTY PERCENT TOTAL COVER IS REACHED WITH NO LARGER THAN ONE FOOT SQUARE BARE SPOTS AND/OR UNTIL DEEMED ESTABLISHED BY CITY PLANNING SERVICES.

GENERAL PLANTING NOTES

- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE NOTED TO REMAIN). BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +0.1' OF FINISH GRADE. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.
- CONSTRUCT AND MAINTAIN FINISH GRADES IN LANDSCAPE AREAS AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING POTENTIAL. SHOULD ANY CONTRACTIONS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR AND OWNER.
- ENSURE THAT THE GRADE IN SHRUB AREAS SHALL BE 2" BELOW FINISH GRADE AFTER INSTALLING SOIL AMENDMENTS, AND 1" BELOW FINISH GRADE IN SOD AREAS AFTER INSTALLING SOIL AMENDMENTS. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF WALL.
- INSTALL 5 OUNCE, WOVEN, NEEDLE-PUNCHED POLYPROPYLENE FABRIC (D&WITT "PRO-6" OR EQUAL) UNDER ALL MULCHED AREAS AND INDIVIDUAL TREE RINGS.
- INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING BEDS AND TREE RINGS. DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE.
- INSTALL 14G GREEN STEEL EDGING BETWEEN ALL PLANTING BEDS AND TURF AREAS, AND BETWEEN GROUNDCOVERS AND OTHER PLANTS (WHERE INDICATED ON THE PLAN).
- HYDROMULCH ALL DISTURBED AREAS OUTSIDE OF PROPERTY LIMITS (UNLESS SHOWN AS SOD).
- ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE LANDSCAPE ARCHITECT OR DESIGNER PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES. PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUNDCOVER PATTERNS) SHALL TAKE PRECEDENCE.
- NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING (VIA PROPER CHANNELS).
- PLANTS MAY BE INSPECTED AND APPROVED OR REJECTED ON THE JOBSITE BY THE OWNER OR OWNER'S REPRESENTATIVE.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESEEDING OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, RESEEDING AREAS WHICH HAVE NOT GERMINATED WELL, TREATING FOR INSECTS AND DISEASES, REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
- SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.
- TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:
 - THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
 - ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
 - SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE FIRST MOWING.HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESEEDING OR RESEEDING (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.
- SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

PLANTING LEGEND

SYMBOL	BOTANIC NAME	COMMON NAME	SIZE	SPACING	QUANTITY	REMARKS
TREES						
GLTR	Gleditsia triacanthos 'Sunburst'	Sunburst Honeylocust	2" cal., 8'-10' high	Per plan	3 14.2%	
GYDI	Gymnocladus dioica	Kentucky Coffee Tree	2" cal., 8'-10' high	Per plan	6 28.6%	
QUMU	Quercus muehlenbergii	Chinquapin Oak	2" cal., 8'-10' high	Per plan	6 28.6%	
TICO	Tilia cordata 'Greenspire'	Greenspire Tilia	2" cal., 8'-10' high	Per plan	6 28.6%	

NOTE: ALL TREES SHALL BE BALLED AND BURLAPPED. REMOVE ALL BURLAP AND WIRE BEFORE PLANTING. SEE SPECIFICATIONS FOR PROPER ROOT QUALITY. FOUR EXISTING TREES ARE FACTORED INTO TREE PERCENTAGES ABOVE.

SHRUBS AND PERENNIALS

CACL	Caryopteris clandonensis	Blue Spiraea	#3 cont.	3' o.c.	13	
JUWI	Juniperus horizontalis 'Wiltonii'	Blue Rug Juniper	#5 cont.	5' o.c.	7	
PHOP	Physocarpus opulifolius 'SMPOTW'	Tiny Wine Ninebark	#5 cont.	1' o.c.	30	
PIMU	Pinus mugo 'Big Tuna'	Big Tuna Mugo Pine	3' high	4'-5' o.c.	27	
RHAR	Rhus aromatica 'Autumn Amber'	Autumn Amber Fragrant Sumac	#3 cont.	6' o.c.	59	

TURF AND SEED

	Poa x 'Reveille'	'Reveille' Bluegrass	Sod	---	---	
	---	Detention basin mix	Seed	See next page	---	
	---	Wetland mix	Seed	See next page	---	
	---	Upland mix	Seed	See next page	---	
	---	Rain garden seed mix	Seed	See below	---	

RAIN GARDEN SEED MIX

Common Name	Scientific Name	Variety	PLS lbs per Acre	Ounces per Acre
Sand bluestem	Andropogon hallii	Garden	3.5	
Sideoats grama	Bouteloua curtipendula	Butte	3	
Prairie sandreed	Chloris virgata	Goshen	3	
Indian ricegrass	Oryzopsis hymenoides	Paloma	3	
Switchgrass	Panicum virgatum	Blackwell	4	
Western wheatgrass	Pascopyrum smithii	Ariba		3
Little bluestem	Schizachyrium scoparium	Patura		3
Alkali sacaton	Sporobolus airoides			3
Sand dropseed	Sporobolus cryptandrus			3
Pasture sage	Artemisia frigida			2
Blue aster	Aster laevis			4
Blanket flower	Gaillardia aristata			8
Prairie coneflower	Ratibida columnifera			4
Purple prairieclover	Dalea (Petaliostemum) purpurea			4
Sub-Totals:			27.5	22

LANDSCAPE CALCULATIONS

TOTAL FRONTAGE - ACADEMY CT.: 438 LF
STREET TREES REQUIRED: 11-15 TREES (30'-40' O.C.)
STREET TREES PROVIDED: 11 TREES

TOTAL FRONTAGE - E. PROSPECT RD.: 235 LF
STREET TREES REQUIRED: 6-8 TREES (30'-40' O.C.)
STREET TREES PROVIDED: 6 TREES (2 PROPOSED AND 4 EXISTING)

PARKING LOT PERIMETER

TREES REQUIRED: 5 TREES (25' O.C., 303 LF)
TREES PROVIDED: 5 TREES

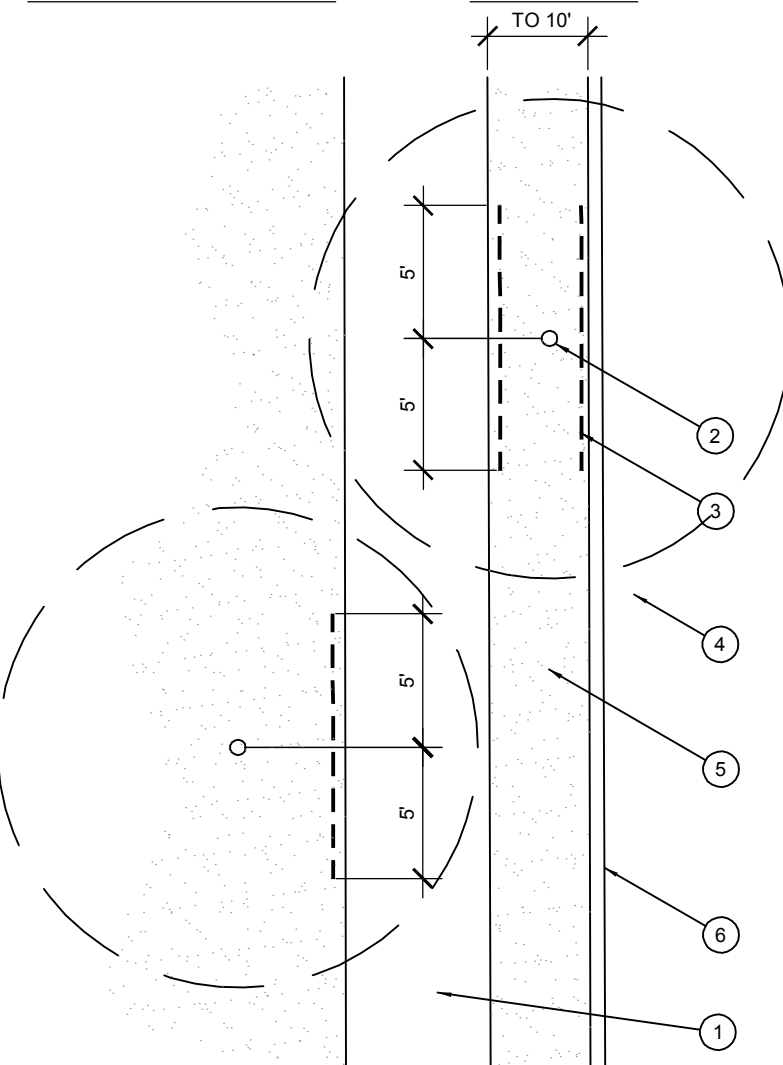
PARKING LOT INTERIOR

PARKING LOT AREA: 13,393 SF
LANDSCAPE AREA REQUIRED: 804 SF (6%)
LANDSCAPE AREA PROVIDED: 1,041 SF (7.8%)
TREES REQUIRED: 7 TREES (1 PER 150 SF OF LANDSCAPE AREA)
TREES PROVIDED: 8 TREES

SEEDED AREAS

ALL SEED SHALL BE DRILL SEEDED. AFTER SEEDING, THE CONTRACTOR SHALL COVER THE RAIN GARDEN, DETENTION BASIN, AND DETENTION BORDER AREAS WITH JUTE MESH. BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S DIRECTIONS. THE CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION AS NEEDED TO ESTABLISH SEED.

OPEN LANDSCAPE PARKWAY



ROOT BARRIER - PLAN VIEW

SCALE: NOT TO SCALE

SWPPP SEED ESTABLISHMENT NOTES

- THE LANDSCAPE CONTRACTOR SHALL DRILL SEED ALL INDICATED AREAS AS SOON AS POSSIBLE AFTER COMPLETION OF GRADING OPERATIONS. SOIL PREPARATION MEASURES IN AREAS TO BE SEEDED SHALL BE COMPLETED PRIOR TO SEEDING.
- FOR PROPER ESTABLISHMENT, SEED SHALL BE INSTALLED WHEN AT LEAST THREE MONTHS REMAIN IN THE GROWING SEASON. IF LESS THAN THREE MONTHS REMAIN IN THE GROWING SEASON AT THE TIME OF SEEDING, THE LANDSCAPE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND OWNER.
- THE IRRIGATION SYSTEM FOR SEEDED AREAS SHALL BE FULLY OPERATIONAL AT THE TIME OF SEEDING. THE LANDSCAPE CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION TO ALL SEEDED AREAS, AND SHALL ENSURE 100% HEAD-TO-HEAD COVERAGE OVER ALL SEEDED AREAS.
- AFTER SEEDING OPERATIONS ARE COMPLETE, THE LANDSCAPE CONTRACTOR SHALL INSTALL JUTE MESH OVER SEEDED AREAS PER MANUFACTURER'S INSTRUCTIONS.
- AFTER SEEDING IS COMPLETED, THE LANDSCAPE CONTRACTOR SHALL SET THE IRRIGATION CONTROLLER SCHEDULE SUCH THAT SEED MAY BE PROPERLY GERMINATED AND HEALTHY SEEDLING GROWTH SUSTAINED. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE IRRIGATION SCHEDULE AS NEEDED THROUGH THE END OF THE LANDSCAPE MAINTENANCE PERIOD TO ENSURE SEEDLING SURVIVAL.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADEQUATE SEEDLING COVERAGE AND GROWTH ("FINAL STABILIZATION") AT THE TIME OF SWPPP CLOSEOUT, AS DEFINED BY THE STATE AGENCY OVERSEES SWPPP PERMITS. IF FINAL STABILIZATION IS NOT ACHIEVED TO THE SATISFACTION OF THE STATE AGENCY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL CORRECTIVE MEASURES AT HIS OWN COST. TO SATISFY SWPPP REQUIREMENTS AND ENSURE TIMELY SWPPP CLOSEOUT, BARRIERS SHALL MAY INCLUDE, AT THE OWNER'S OPTION, RESEEDING OF SPARSELY GERMINATED AREAS AND/OR INSTALLATION OF SOD IN ALL SEEDED AREAS.

WATER USE CALCULATIONS

1,359 SF LOW-WATER TURF
1,359 SF X 10 GAL/SF = 13,590 GAL/SF/SEASON
8,547 SF BASIN AND RAIN GARDEN
8,547 SF X 3 GAL/SF = 25,641 GAL/SF/SEASON
7,073 SF SHRUBS
7,073 SF X 3 GAL/SF = 21,219 GAL/SF/SEASON
13,123 SF NATIVE SEED
13,123 SF X 0 GAL/SF = 0 GAL/SF/SEASON
60,450 GAL / 30,102 SF = 2.01 GAL/SF/SEASON

ROOT BARRIERS

THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP ROOT" 2" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENIRCLE THE ROOTBALL.

- TYPICAL WALKWAY OR PAVING
- TREE TRUNK
- TYPICAL SYMBOL FOR LINEAR ROOT BARRIER MATERIAL. SEE PLANTING NOTES FOR TYPE AND MANUFACTURER. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- TREE CANOPY
- TYPICAL PLANTING AREA
- TYPICAL CURB AND GUTTER



DESIGNED BY

LML

DATE

06/15/2017

PREPARED BY

LML

REVISION DESCRIPTION

CLIENT COMMENTS

CITY OF FORT COLLINS

COUNTY OF LARIMER

CHRISTIAN BROTHERS AUTOMOTIVE

CHRISTIAN BROTHERS AUTOMOTIVE

BLOCK 1, UPLAND'S PROSPECT BUSINESS PARK P.U.D.

PLANTING PLAN

1950 FORD STREET • GOLDEN, COLORADO 80401

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INITIAL SUBMITTAL

06/08/2017

DRAWING SIZE

24" X 36"

SURVEY FIRM

SURVEY DATE

BASLINE

JOB NO.

15298

DRAWING NAME

SHEET

LP-1 OF 14

GENERAL

- A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR**
1. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING.
2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.
3. THE LANDSCAPE CONTRACTOR SHALL HOLD A VALID CONTRACTOR'S LICENSE ISSUED BY THE APPROPRIATE LOCAL JURISDICTION.
- B. SCOPE OF WORK**
1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN ON THE LANDSCAPE PLANS AND DETAILS.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY THE STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.
3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRIC, GAS, ETC.) PRIOR TO ANY CONSTRUCTION.

PRODUCTS

- A. ALL MANUFACTURED PRODUCTS SHALL BE NEW.
- B. CONTAINER AND BALLED-AND-BURLAPPED PLANTING:
1. FURNISH NURSERY-GROWN PLANTS COMPLYING WITH ANSI Z60.1-2014. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES THAT HAVE A SPECIFIC SIZE AND AGE REQUIREMENT SHALL BE PROVIDED WITH A MINIMUM OF 10% OF THE SPECIES OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMATIC CONDITIONS.
2. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NON-POT-BOUND, FREE FROM GROUNDING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).
3. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE. SUCH PLANT SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE SPECIES AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF ANY PLANT.
4. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
5. CROPER MEASUREMENTS SHALL EXCEED: 4 INCHES FOR TREES 18 INCHES IN CALIPER, SIX INCHES FOR TREES 18 INCHES TO 24 INCHES IN CALIPER, EIGHT INCHES FOR TREES 24 INCHES TO 30 INCHES IN CALIPER, AND TEN INCHES FOR TREES 30 INCHES AND OVER IN CALIPER.
6. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL.
7. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
- C. SOIL: THE WELL-SOITED SOIL OF THE VARIETY NOTED ON THE PLANS. SOIL SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLEY OF SOIL SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOIL.
- D. SEED: SEEDS SHALL BE TESTED AND CERTIFIED AS LISTED ON THE PLANS, WITH MAXIMUM PERCENTAGES OF PURITY, GERMINATION, AND MINIMUM PERCENTAGE OF WEED SEED AS INDICATED ON PLANS. EACH BAG OF SEED SHALL BE ACCOMPANIED BY A TAG FROM THE SUPPLIER INDICATING THE COMPOSITION OF THE SEED.
- E. INERT: TO CLUMP/TOPSOIL, FREE OF STONES LARGER THAN 1/2 INCH FOREIGN MATERIAL, PLANTS, ROOTS, AND SEEDS.
- F. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATERIAL, pH RANGE OF 5.5 TO 8. MOISTURE CONTENT TO 65 PERCENT. INERT CONTENT SHALL NOT EXCEED 10 PERCENT. INERT SHALL BE SOIL WITH A CONTENT OF 10 TO 10% DECISIEMENS/CM, NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED.
- G. SEEDS: GRANULAR, NON-CLUMPING, NON-TOXIC, NON-CORROSIVE, NON-FLAMMABLE, NON-POISONOUS, AND NON-IRRITATING IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL-TESTING AGENCY (SEE BELOW).
- H. MULCH: SHALL BE THAT INDICATED ON PLANS. FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.
- I. WEEF FABRIC: 5 OUNCE, VOVEN, NEEDLE-PUNCHED FABRIC, SUCH AS DEWITT PROS LANDSCAPE FABRIC (OR APPROVED EQUIV.)
- J. TREE STAKING AND GUYING
1. STAKES: 6" LONG GREEN METAL T-POSTS.
2. GUYING: TWO 1/2" WIRE, 16 GAUGE, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH DIAMETER.
3. STRAP CHAFING GARD: REINFORCED NYLON OR CANVAS AT LEAST 1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE.
- K. STAKE EDGING: PROTECTIVE EDGING SHALL BE 16 GAUGE THICK X 4 INCHES WIDE. FACTORY PAINTED DARK GREEN. ACCEPTABLE MANUFACTURERS INCLUDE CUL-DAGH OR APPROVED EQUIV.
- L. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC PLANTMENT TYPE AND THAT IT WILL BE USED FOR PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

METHODS

- A. SOIL PREPARATION**
- BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN $\pm 1/4"$ OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST.
- B. SOIL TESTING:**
- a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, PH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND HEAVY METAL CONTENT. ANY SUBMITTAL SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL.
- b. CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES.
- c. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): GENERAL SOIL PREPARATION AND BACKFILL MIXES, PRE-PLANT FERTILIZER APPLICATIONS, AND ANY OTHER RECOMMENDATIONS THAT MAY BE REQUIRED TO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
3. THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOIL REPORT RECOMMENDATIONS. SOIL AMENDMENTS IN COST OF FERTILIZER RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.
4. FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING:
- a. FILL, INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-SPRINKING:
- i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
 - ii. AMMONIUM PHOSPHATE 16-20-0 - 15 LBS PER 1,000 S.F.
 - iii. AGRICULTURAL GYPSUM - 10 LBS PER 1,000 S.F.
- b. TREES, SHRUBS, AND PERENNIALS INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-SPRINKING:
- i. NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
 - ii. 12-12-12 FERTILIZER - 10 LBS. PER CU. YD.
 - iii. AGRICULTURAL GYPSUM - 10 LBS. PER CU. YD.
- c. IRON SULPHATE - 2 LBS. PER CU. YD.
5. CONTRACTOR SHALL ENSURE THAT THE GRADE IN SOD AREAS IS $\frac{1}{2}"$ BELOW FINISH GRADE BEFORE INSTALLING SOIL AMENDMENTS, AND $2"$ BELOW FINISH GRADE IN SHRUB AREAS BEFORE INSTALLING SOIL AMENDMENTS. MULCH COVER WITHIN OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE SURFACE OF CONCRETE CURBS. MULCH SHALL BE MAINTAINED AT A MINIMUM OF AT LEAST 3" LOWER THAN THE TOP OF WALL.
6. SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.

ALL SEED SHALL BE DRILL SEEDED. AFTER SEEDING, THE CONTRACTOR SHALL COVER THE RAIN GARDEN, DETENTION BASIN, AND DETENTION BORDER AREAS WITH JUTE MESH, STAKED IN PLACE PER MANUFACTURER'S DIRECTIONS. THE CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION AS NEEDED TO ESTABLISH SEED.

DETENTION BASIN MIX			
	Common Name	Scientific Name	lbs/PLS/ Acre
Wildflowers	Plains coreopsis	<i>Coreopsis tinctoria</i>	0.17
	White prairie clover	<i>Dalea candida</i>	0.65
	Purple Prairie-Clover	<i>Dalea purpurea</i>	0.85
	Indian blanket-flower	<i>Gaillardia aristata</i>	1.81
	Mexican hat	<i>Ratibida columnifera</i>	0.2
	Indian Knapweed	<i>Achatherium hymenoides</i>	1.13
	Succoweed Gramma	<i>Bontonia caroliniana</i>	1.15
	Butterflygrass	<i>Bontonia dictyodonta</i>	3.27
Grasses	Blue Grama	<i>Bouteloua gracilis</i>	0.25
	Inland Saltgrass	<i>Distichlis stricta</i>	0.35
	Bottlebrush squirreltail	<i>Elymus elymoides</i>	0.95
	Streambank wheatgrass	<i>Elymus lanceolatus ssp. lanceolatus</i>	1.36
	Prairie Junegrass	<i>Elymus nevadensis</i>	0.98
	Western Wheatgrass	<i>Pascopyrum smithii</i>	1.61
	Little Bluestem	<i>Schizachyrium scoparium</i>	0.7
		Total for Detention Basin Mix	14.54 lbs/PLS/Acre
Substitutes	ACCEPTABLE SUBSTITUTES FOR WILDFLOWERS		
	Blue flax (<i>Linum lewisii</i>) 0.83 lbs/PLS/Acre		
	Black-eyed Susan (<i>Rudbeckia hirta</i>) 0.14 lbs/PLS/Acre		
	Prairie yucca (<i>Muhlenbergia lanceolata</i>) 10.49 lbs/PLS/Acre		
	ACCEPTABLE SUBSTITUTES FOR GRASSES		
	Salt and pepper grass (<i>Deschampsia cespitosa</i>) 0.07 lbs/PLS/Acre		
	Six weeks fescue (<i>Vulpia octoflora</i>) 0.19 lbs/PLS/Acre		
	Slender wheatgrass (<i>Elymus trachycarpus</i>) 1.36 lbs/PLS/Acre		

*Contractor is responsible for locating and purchasing all species listed in mix. If a species can't be located, contractor must replace each missing species with the acceptable substitutions (listed above). Contractor is responsible for providing seed tags to appropriate City staff. This mix is based on 70 seeds/ square foot and is only calculated for one acre. This mix is based on the contractor using a drill seed application. Mix should be doubled if hand broadcasted. Contractor is responsible for calculating the appropriate seed amounts to purchase. Please note that the pounds per acre are in PLS (Pure Live Seed) and must be ordered that way. 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.

- GENERAL PLANTING**
1. REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.
 2. EXCAVATE IN AROUND THE PLANT TO THE CRITICAL ROOT ZONE, APPLY PER-EMERGENT HERBICIDES AS THE MANUFACTURER'S RECOMMENDED RATE.
 3. TRENCING NEAR EXISTING TREES
 - a. CONTRACTOR SHALL TRENCH ROOTS 1'-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREES, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS OF FOUR INCHES FROM THE TRUNK. DIAMETER-AT-BREAST-HEIGHT (4'5" ABOVE THE AVERAGE GRADE AT THE TRUNK).
 - b. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION IS ALLOWED WITHIN THE CRZ.
 - c. AFTER TRENCHING OF TREE TRUNK, CONTRACTOR SHALL REPAIR THE CRZ WITHIN THE CRZ.
 - d. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1'-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1'-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER ROOTS. WRAP EXPOSED ROOTS WITH 2" MINIMUM THICKNESS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.
 - e. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PATCHES.
- C. TREE PLANTING**
1. TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL. A MINIMUM DEPTH SHALL BE THE DEPTH OF THE ROOT BALL PLUS TWO TO FOUR INCHES.
 2. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE.
 3. THE CONTRACTOR SHALL MAINTAIN A RECORD OF ALL POTENTIALLY AFFECTED OTHER ROOT DEFECTS. THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE ROOTBALL.
 4. INSTALL THE TREE IN THE EXCAVATED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES ABOVE THE SURROUNDING GRADE.
 5. BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ANY OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOW ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK. USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS, STRATIGRAPHY, AND COLOR, OR REPLACE IF IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES:

a. 1'-2" TREES	2 TACKES PER TREE
b. 1'-2" 4" TREES	3 TACKES PER TREE
c. TREES OVER 4" CALIPER	4 TACKES PER TREE
d. MULTI-TRUNK TREES	3 TACKES PER TREE
 6. TREES SHALL BE PLANTED AT THE MINIMUM QUANTITY AND POSITIONS AS NEEDED TO STABILIZE THE TREE.
 7. UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE. COVER THE INTERIOR OF THE TREE RING WITH THE WEED BARRIER CLOTH AND TOPDRESS WITH MULCH (TYPE AND DEPTH PER PERMITS).
- D. SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING**
1. DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS.
 2. INSTALL THE WEED BARRIER CLOTH AND TOPDRESS WITH MULCH (TYPE AND DEPTH PER PERMITS).
 3. WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS, EXCLUDING THE TREE PLANTING AREA.
- E. SODDING**
1. SOD VARIETY TO BE AS SPECIFIED ON THE LANDSCAPE PLAN.
 2. LAY SOD WITHIN 24 HOURS FROM THE TIME OF STRIPPING. DO NOT LAY IF THE GROUND IS FROZEN.
 3. LAY THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES.
 4. INSTALL THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES.
 5. WATER THE SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING TO OBTAIN AT LEAST SIX INCHES OF PENETRATION INTO THE SOIL BELOW THE SOD.
- F. CLEAN UP**
1. DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION.
- G. INSPECTION AND ACCEPTANCE**
1. DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.
 2. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRUCKS AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
 3. WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE DEFECTIVE WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.
 4. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN INSPECTED BY AND TO THE SATISFACTION OF THE OWNER. ANY PLANTS WHICH FAIL TO MEET THE FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.
- H. LANDSCAPE MAINTENANCE**
1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER.
 2. LANDSCAPE MAINTENANCE SHALL INCLUDE WATERING, FERTILIZATION, AND PRUNING (AS APPROPRIATE). PROPER PRUNING, RESTAKING OF TREES, RESETTING OF PLANTS THAT HAVE SETTLED, MOVING AND AERATION OF LAWNS, WEEDING, RESEEDING AREAS WHICH HAVE NOT GERMINATED, WEEDING FOR INSECT AND DISEASE CONTROL, REPLACEMENT OF MISSING PLANTS, REMOVAL OF LITTER REMAINS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKSMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER WITH SCHEDULING OF THE IRRIGATION SYSTEM TO BE MAXIMIZE WATER CONSERVATION.
 3. SODDED AREAS AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL GROUND STAND OF SOD WITHIN THE ADDITIONAL 90 DAYS.
 4. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:
 - a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
 - b. ALL HARDSCAPE SHALL BE CLEANED PER THE FINAL ACCEPTANCE.
 - c. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE FIRST MOWING. HYDROLOGICAL AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LONGER THAN TWO FEET SHALL BE RESEED OR REVEGETATED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWN.
- WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS**
1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDS, HYDROLOGICAL AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
 2. AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE IRRIGATION SYSTEM. PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS.
- I. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD OF RECORDS SHALL BE MAINTAINED BY THE CONTRACTOR. RECORDS SHALL BE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.**

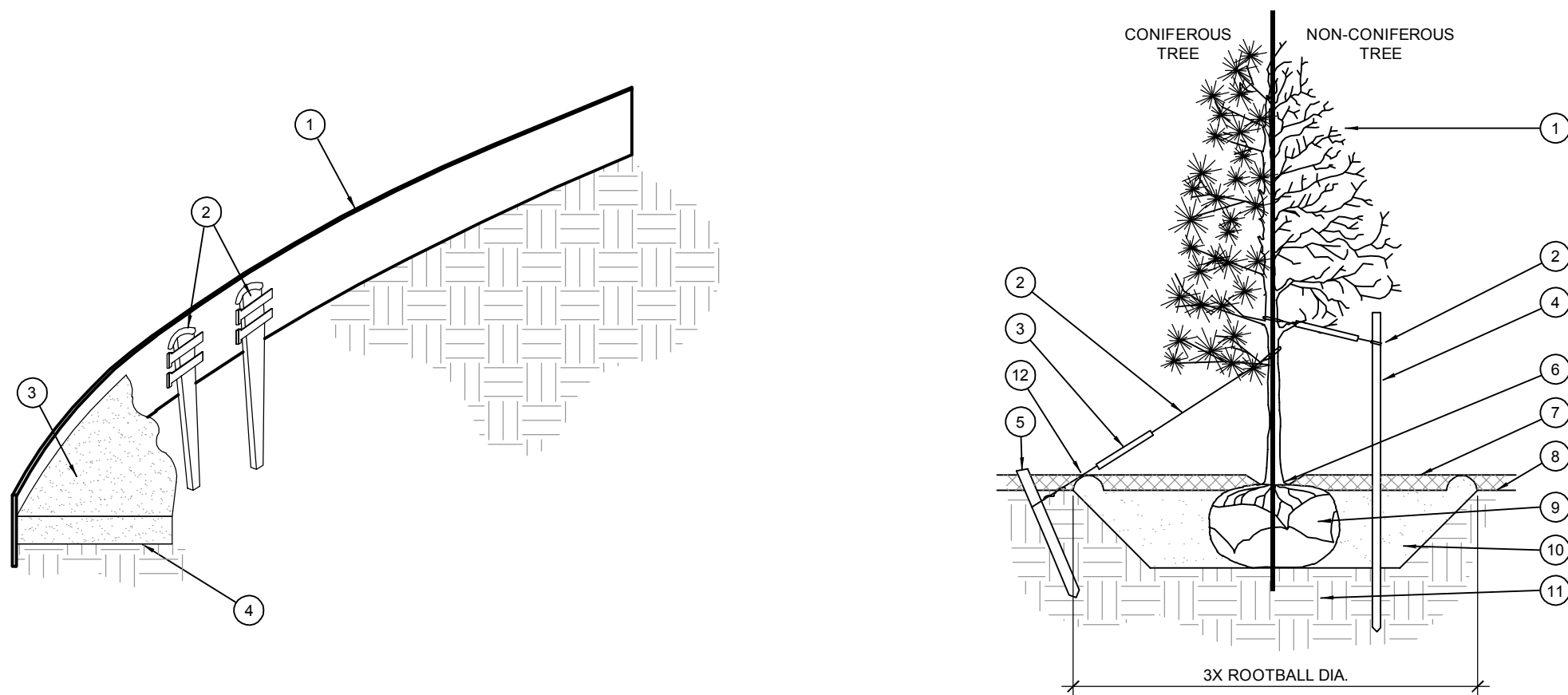
THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.

WETLAND MIX			
	Common Name	Scientific Name	lbs/PS/ Acre
Wildflowers	Marsh sunflower	<i>Helianthus multifidus</i>	1.51
	Pennsylvania smartweed	<i>Polygonum pennsylvanicum</i> (<i>Periscaria pennsylvanica</i>)	3.13
	Goldenplover daisy	<i>Rudbeckia ampla</i>	1.36
	Blue verbena	<i>Verbena hastata</i>	0.2
	American skouggrass	<i>Berchonia stygiacine</i>	0.39
Grasses	Inland Salicaria	<i>Deschampsia stricta</i>	0.67
	Giant monogras	<i>Glyceria grandis</i>	0.27
	Fowl bluegrass	<i>Poa palustris</i>	0.35
	Prairie Cordgrass	<i>Spartina pectinata</i>	1.9
	Spikerush	<i>Eleocharis palustris</i>	0.42
Wet Species	Arctic rush	<i>Juncus balticus</i> (<i>J. arcticus</i>)	0.03
	Hardstem bulrush	<i>Scheuchzeria acutus</i>	0.65
	Alkali bulrush	<i>Sagittaria maritima</i> (<i>Bolboscheites maritimus</i>)	1.14
	Common three-square	<i>Scheuchzeria pungens</i>	0.65
		Total for Wetland Mix	12.68 lbs/PS/Acre
ACCEPTABLE SUBSTITUTES FOR WILDFLOWERS			
Substitutes	Black-eyed Susan (<i>Rudbeckia hirta</i>)	0.9 lbs/PS/Acre	
	Beeham (<i>Menarda fistulosa</i> var. <i>menchifolia</i>)	0.21 lbs/PS/Acre	
	None or more species is unavailable, double the quantity of an available wildflower (in mix above)		
	ACCEPTABLE SUBSTITUTES FOR GRASSES		
	Salt and Pepper grass (<i>Deschampsia cespitosa</i>)	1.14 lbs/PS/Acre	
	Swinegrass (<i>Panicum virgatum</i>)	1.35 lbs/PS/Acre	
	Alkali searson (<i>Sporobolus airoides</i>)	0.20 lbs/PS/Acre	

ACCEPTABLE SUBSTITUTES FOR WET SPECIES	
	If one or more species is unavailable, double the quantity of an available wet species (In mix above).
Comments	*Contractor is responsible for locating and purchasing all species listed in mix. If a species can't be located, contractor must replace each missing species with an acceptable substitution (listed above). Contractor is responsible for providing seed tags to appropriate CWSA contact. This mix is based on 100 pounds of seed mix. For wet mix, double the quantity of each species. This mix is based on the appropriate species.

UPLAND MIX			
	Common Name	Scientific Name	lbs/PLS/Acre
Wildflowers	Plains coreopsis	<i>Coreopsis tinctoria</i>	0.17
	Purple Prairie Clover	<i>Dalea purpurea</i>	0.81
	Rocky blinletflow	<i>Guillardia aristata</i>	1.85
	Rocky, min. penstemon	<i>Penstemon strictus</i>	0.35
	Mexican hat	<i>Ratibida columnifera</i>	0.2
	Indian ricegrass	<i>Achnatherum hymenoides</i>	1.13
	Silkystem grama	<i>Bouteloua curtipendula</i>	1.15
	Butelgrass	<i>Bouteloua dactyloides</i>	3.27
Grasses	Blue grama	<i>Bouteloua gracilis</i>	0.25
	Bottlebrush squirreltail	<i>Elymus elymoides</i>	0.95
	Prairie Junegrass	<i>Koeleria macrantha</i>	0.08
	Green, needlegrass	<i>Nassella viridula</i>	1.01
	Switchgrass	<i>Panicum virginatum</i>	0.71
	Western Wheat	<i>Paspalum umithii</i>	1.61
	Sand dropseed	<i>Sporobolus corymbosus</i>	0.04
		Total for Upland Mix	13.58 lbs/PLS/Acre
ACCEPTABLE SUBSTITUTES FOR WILDFLOWERS			
Substitutes	Fringed sage (<i>Arenaria frigida</i>) 0.03 lbs/PLS/Acre		
	Blue flag (<i>Linum lewisii</i>) 0.41 lbs/PLS/Acre		
	Prairie aster (<i>Machaeranthera tenuifolia</i>) 0.25 lbs/PLS/Acre		
	ACCEPTABLE SUBSTITUTES FOR GRASSES		
	Canada wildgrass (<i>Elymus canadensis</i>) 1.59 lbs/PLS/Acre		
	Indian salgrass (<i>Distachlis spicata</i>) 0.35 lbs/PLS/Acre		
Mammals	Mountain quail (<i>Melospiza montana</i>) 0.11 lbs/PLS/Acre		
	*Contact your provider for locating and purchasing all species listed in mix. If a species can't be located, contractor must replace		

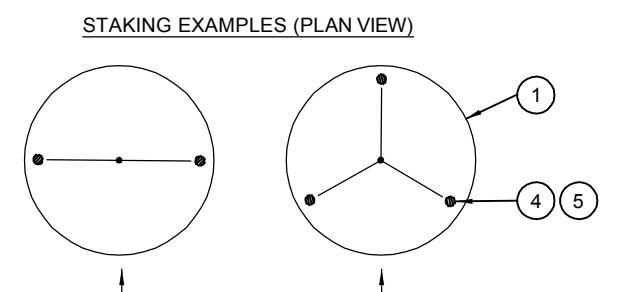
Requirements	each missing species with an acceptable substitution (listed above). Contractor is responsible for providing seed tags to appropriate City staff. This mix is based on 70 seeds/ square foot and is only calculated for one acre. This mix is based on the contractor using a drill seed application. Mix should be doubled if hand broadcasted. Contractor is responsible for calculating the appropriate seed amounts to purchase. Please note that the pounds per acre are in PLS (Pure Live Seed) and must be ordered that way. 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.



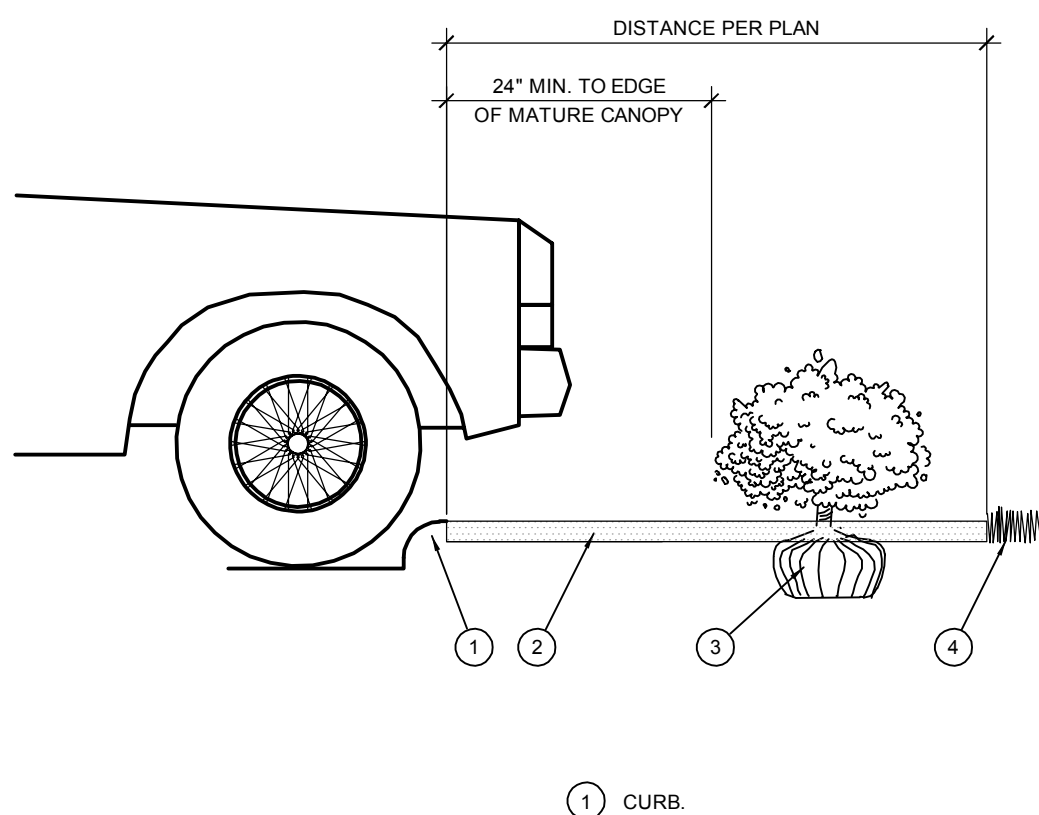
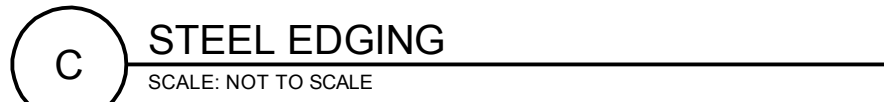
- ① ROLLED-TOP STEEL EDGING PER PLANS.
- ② TAPERED STEEL STAKES.
- ③ MULCH, TYPE AND DEPTH PER PLANS.
- ④ FINISH GRADE.

NOTES:

- 1) INSTALL EDGING SO THAT STAKES WILL BE ON INSIDE OF PLANTING BED.
- 2) BOTTOM OF EDGING SHALL BE BURIED A MINIMUM OF 1" BELOW FINISH GRADE
- 3) TOP OF MULCH SHALL BE 1" LOWER THAN TOP OF EDGING.



- NOTES:
1. SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE.
2. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT IS COVERING THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 13" - 5" ABOVE FINISH GRADE.
3. FOR 8&B TREES, CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING THE ROOT BALL. REMOVE WIRE BASKET REMAINDER OF BASKET AFTER TREE IS SET IN HOLE. REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE AS MUCH BURLAP FROM AROUND ROOTBALL AS IS PRACTICAL.
4. REMOVE ALL NURSERY STAKES AND ALL PLASTIC.
5. FOR 10" OR OVER DBH TREES, USE 2" X 4" BOX AND LARGER. USE THREE STAKES OR DEADEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE.
6. STAKES SHALL BE TIGHT ENOUGH TO PREVENT TRUNK FROM BENDING, BUT LOOSE ENOUGH TO ALLOW SOME TRUNK MOVEMENT IN WIND.



D HEDGE PLANTING AT PARKING AREA
SCALE: NOT TO SCALE



- ① SHRUB, PERENNIAL, OR ORNAMENTAL GRASS.
- ② MULCH, TYPE AND DEPTH PER PLANS. PLACE MORE THAN 1" OF MULCH WITHIN 6" OF PLANT CENTER.
- ③ FINISH GRADE.
- ④ ROOT BALL.
- ⑤ BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
- ⑥ UNDISTURBED NATIVE SOIL.
- ⑦ 3" HIGH EARTHEN WATERING BASIN.
- ⑧ WEED FABRIC UNDER MULCH.

SHRUB AND PERENNIAL PLANTING

SCALE: NTS

1. **PLANT QUALITY:** ALL PLANT MATERIAL SHALL BE A-GRADE OR NO. 1 GRADE - FREE OF ANY DEFECTS, OF NORMAL HEALTH, HEIGHT, LEAF DENSITY AND SPREAD APPROPRIATE TO THE SPECIES AS DEFINED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. ALL TREES SHALL BE BALL AND BURLAP OR EQUIV.
2. **IRRIGATION:** ALL LANDSCAPE AREAS WITHIN THE SITE INCLUDING TURF, SHRUB BEDS AND TREE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM. THE IRRIGATION PLAN MUST BE REVIEWED AND APPROVED BY THE CITY OF FORT COLLINS WATER UTILITIES DEPARTMENT PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. ALL TURF AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. ALL SHRUB BEDS AND TREES, INCLUDING IN NATIVE SEED AREAS, SHALL BE IRRIGATED WITH AN AUTOMATIC DRIP (TRICKLE) IRRIGATION SYSTEM, OR WITH AN ACCEPTABLE ALTERNATIVE APPROVED BY THE CITY WITH THE IRRIGATION PLAN. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO MEET THE WATER REQUIREMENTS OF THE MOST DEMANDING INDIVIDUAL PLANT MATERIAL.
3. **TOPSOIL:** TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE ON AREAS REQUIRING REVEGETATION AND LANDSCAPING.
4. **SOIL AMENDMENTS:** SOIL AMENDMENTS SHALL BE PROVIDED AND DOCUMENTED IN ACCORDANCE WITH CITY CODE SECTION 12-132. THE SOIL IN ALL LANDSCAPE AREAS INCLUDING TURF AREAS SHALL BE THOUGH LOOSENED 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. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, A WRITTEN CERTIFICATION MUST BE SUBMITTED TO THE CITY THAT ALL PLANTED AREAS, OR AREAS TO BE PLANTED, HAVE BEEN THOROUGHLY LOOSENED AND THE SOIL AMENDED, CONSISTENT WITH THE REQUIREMENTS SET FORTH IN SECTION 12-132.
5. **INSTALLATION AND MAINTENANCE:** ALL LANDSCAPING SHALL BE INSTALLED USING SOUND HORTICULTURAL PRACTICES IN A MANNER DESIGNED TO ENCOURAGE QUICK ESTABLISHMENT AND HEALTHY GROWTH. ALL LANDSCAPING FOR EACH PHASE MUST BE EITHER INSTALLED OR THE INSTALLATION MUST BE SECURED WITH AN IRREVOCABLE LETTER OF CREDIT, PERFORMANCE BOND, OR ESCROW ACCOUNT FOR 125% OF THE VALUATION OF THE MATERIALS AND LABOR PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ANY BUILDING IN SUCH PHASE.
6. **MAINTENANCE:** TREES AND LANDSCAPING, IRRIGATION SYSTEMS, FENCES, WALLS AND ALL OTHER LANDSCAPE ELEMENTS WITH THESE FINAL PLANS SHALL BE CONSIDERED AS ELEMENTS OF THE PROJECT IN THE SAME MANNER AS PARKING, BUILDING MATERIALS AND OTHER SITE DETAILS. THE APPLICANT, LANDOWNER OR SUCCESSORS IN INTEREST SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE REGULAR MAINTENANCE OF ALL LANDSCAPING ELEMENTS IN GOOD CONDITION. ALL LANDSCAPING SHALL BE MAINTAINED FREE FROM DISEASE, PESTS, WEEDS AND LITTER, AND ALL LANDSCAPE STRUCTURES SUCH AS FENCES AND WALLS SHALL BE REPAIRED AND REPLACED PERIODICALLY TO MAINTAIN A STRUCTURALLY SOUND CONDITION.
7. **REPLACEMENT:** ANY LANDSCAPE ELEMENT THAT DIES, OR IS OTHERWISE REMOVED, SHALL BE PROMPTLY REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS.
8. **THE FOLLOWING SEPARATIONS SHALL BE PROVIDED BETWEEN TREES/SHRUBS AND UTILITIES:**
 - 40 FEET BETWEEN CANOPY TREES AND STREET LIGHTS
 - 10 FEET BETWEEN ORNAMENTAL TREES AND STREETLIGHTS
 - 10 FEET BETWEEN TREES AND PUBLIC WATER, SANITARY AND STORM SEWER MAIN LINES
 - 6 FEET BETWEEN TREES AND PUBLIC WATER, SANITARY AND STORM SEWER SERVICE LINES
 - 4 FEET BETWEEN SHRUBS AND PUBLIC WATER AND SANITARY AND STORM SEWER LINES
 - 4 FEET BETWEEN TREES AND GAS LINES
9. **ALL STREET TREES SHALL BE PLACED AT A MINIMUM EDGE (B) FEET AWAY FROM THE EDGES OF DRIVEWAYS AND ALLEYS PER LUC 3.2 (d)(2)(9).**
10. **PLACEMENT OF ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE SIGHT DISTANCE CRITERIA AS SPECIFIED BY THE CITY OF FORT COLLINS. NO STRUCTURES OR LANDSCAPE ELEMENTS GREATER THAN 24" SHALL BE ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENTS WITH THE EXCEPTION OF DECIDUOUS TREES PROVIDED THAT THE LOWEST BRANCH IS AT LEAST 6' FROM GRADE. ANY FENCES WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENT MUST BE NOT MORE THAN 42" HIGH AND THE HEIGHT OF AN OPEN DESIGN SHALL BE COORDINATED WITH ALL OTHER FINAL PLAN ELEMENTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, AND OTHER DEVELOPMENT IMPROVEMENTS DO NOT CONFLICT WITH NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.**
11. **MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION - AS REQUIRED BY SITE CONDITIONS OR PLANT AVAILABILITY. OVERALL QUANTITY, QUALITY, AND DESIGN CONCEPT MUST BE CONSISTENT WITH THE APPROVED PLANS. IN THE EVENT OF CONFLICT WITH THE QUANTITIES INCLUDED IN THE PLANS AND THE SPECIES AND LOCATIONS ILLUSTRATED SHALL BE PROVIDED. ALL CHANGES OF PLANT SPECIES AND LOCATION MUST HAVE WRITTEN APPROVAL BY THE CITY PRIOR TO INSTALLATION.**
12. **ALL PLANTING BEDS SHALL BE MULCHED TO A MINIMUM DEPTH OF THREE INCHES.**



CHRISTIAN BROTHERS AUTOMOTIVE CORP.

LLINS
COUNTY OF LARIMER
CHRISTIAN BROTHERS AUTOMOTIVE

LLINS COUNTY
CHRISTIAN BROTHERS AUTOMOTIVE

BLOCK 1, UPLAND'S PROSPECT BUSINESS PARK P.U.D.
 ANTING SPECIFICATIONS AND DETAILS

DESIGNED BY	LML
PREPARED BY	DATE
	06/15/2017

	DRAWN BY	
	I M I	

CHECKED BY	
LML/RM	

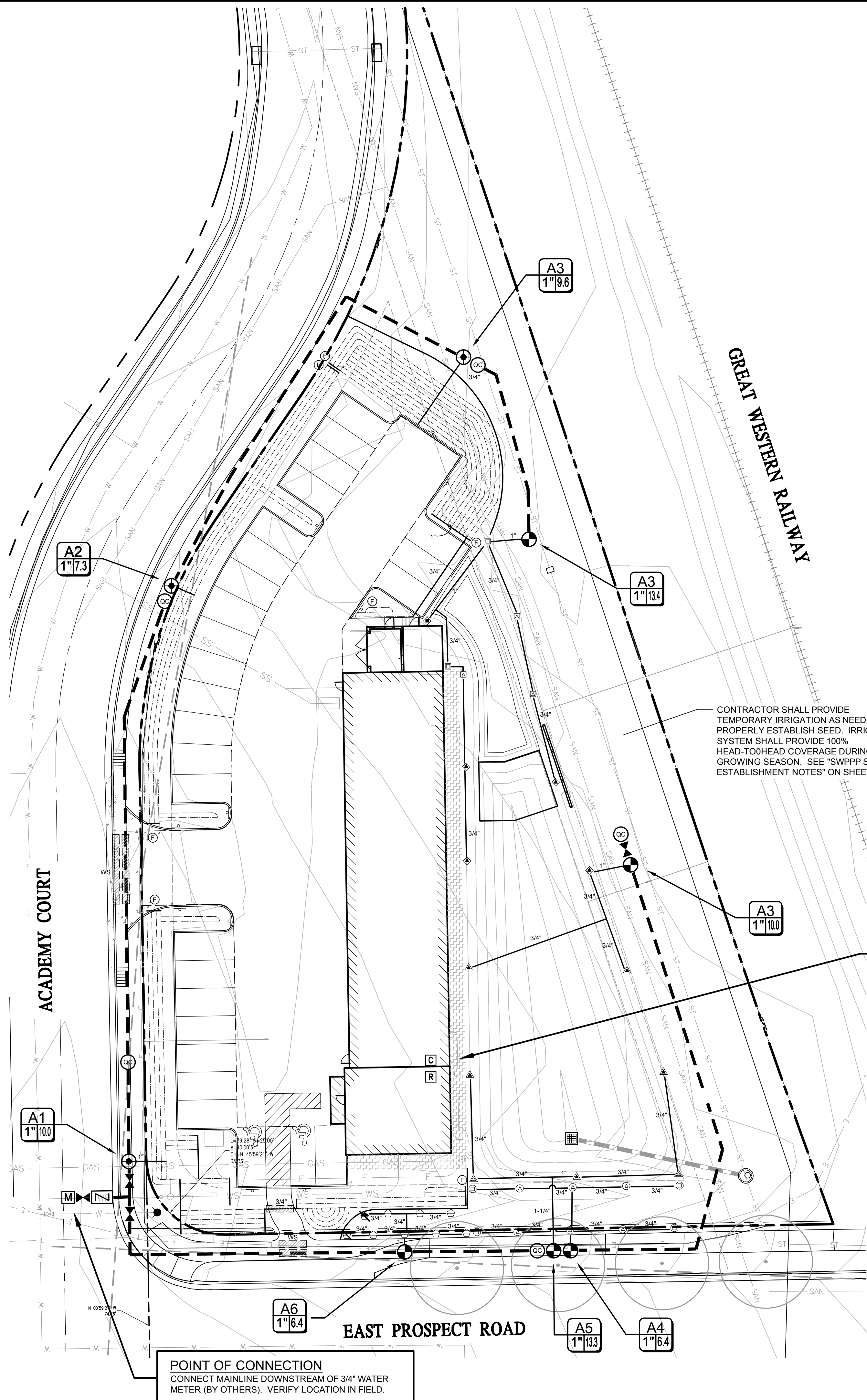
REVISION DESCRIPTION	CLIENT COMMENTS

1000000


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Engineering · Planning · Surveying

1950 FORD STREET · GOLDEN, COLORADO 80401
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IRRIGATION LEGEND

SYMBOL	MANUF.	MODEL NO.	DESCRIPTION	REMARKS/DETAIL
CONTROLLERS AND SENSORS				
	RAINBIRD	ESP-12LXBASIC	12-STATION CONTROLLER, INTERIOR WALL MOUNT	DETAIL ALI2
	RAINBIRD	WR2-RFC	RAIN/FREEZE SENSOR - MOUNT SENSOR ON EAVE OR PARAPET PER MANUFACTURER	DETAIL BA12
POINT OF CONNECTION				
	---	---	3/4" WATER METER (BY OTHERS)	DETAIL ML13
	FEBCO	MODEL 825YA - 3/4"	BACKFLOW PREVENTER WITH LF650A Y-STRAINER, MOUNT IN STRONGBOX INSULATED ENCLOSURE, MODEL #SBBCC-60ALHPI	DETAIL CA12
VALVES				
	RAINBIRD	XCZ-100-PRB-COM	DRIP CONTROL ZONE KIT (FLOWS UP TO 20 GPM)	DETAIL DL12
	RAINBIRD	PEB SERIES	REMOTE CONTROL VALVE, SIZE PER PLAN	DETAIL EA12
	RAINBIRD	33DLRC	QUICK COUPLER, 3/4"	DETAIL FA12
	NIBCO	T-FP-600A	BALL VALVE, BRASS, FULL-PORT, LINE SIZE	DETAIL GA13

MAIN LINE/ LATERALS & SLEEVES				
	ANY APPROVED	PRESSURIZED PVC MAIN LINE, SCH. 40, 1"		DETAIL HL13
	ANY APPROVED	NON-PRESSURIZED LATERAL LINE, CL. 200 PVC, SIZE AS NOTED ON PLAN		DETAIL HL13
	ANY APPROVED	IRRIGATION SLEEVE, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED, ONE SLEEVE PER PIPE		DETAIL HL13
	ANY APPROVED	CONTROL WIRING SLEEVE, SCH. 40 PVC, 2"		DETAIL HL13

DRIP IRRIGATION				
	RAINBIRD	XFS-06-18	LANDSCAPE DRIP LINE - SPACE LINES AT 18" O.C.	0.6 GPH 20 DETAILS I, JU13
	ANY APPROVED	---	FLUSH VALVE - BALL VALVE IN VALVE BOX WITH 3' LENGTH OF TUBING	DETAIL KA13

ROTORS & SPRAY HEADS				
	RAINBIRD	1806	POP UP SPRAY	HE-VAN-08 (H) 8" 0.59 30 DETAIL LA13
	RAINBIRD	1806	POP UP SPRAY	10H 10' 0.79 30 DETAIL LA13
	RAINBIRD	1806	POP UP SPRAY	HE-VAN-10 (Q) 10' 0.45 30 DETAIL LA13
	RAINBIRD	1806-SAM-PRS	POP UP ROTARY SPRAY	R13-18 (Q) 16' 0.40 30 DETAIL LA13
	RAINBIRD	1806-SAM-PRS	POP UP ROTARY SPRAY	R13-18 (H) 16' 0.80 30 DETAIL LA13
	RAINBIRD	5004	POP UP ROTOR	MPR-25Q 25' 0.88 35 DETAIL LA13
	RAINBIRD	5004	POP UP ROTOR	MPR-29H 25' 1.73 35 DETAIL LA13
	RAINBIRD	5004	POP UP ROTOR	MPR-25F 25' 3.34 35 DETAIL LA13
	RAINBIRD	5004	POP UP ROTOR	MPR-30Q 30' 1.23 35 DETAIL LA13
	RAINBIRD	5004	POP UP ROTOR	MPR-30H 30' 1.59 35 DETAIL LA13
	RAINBIRD	5004	POP UP ROTOR	MPR-35Q 35' 1.67 35 DETAIL LA13
	RAINBIRD	5004	POP UP ROTOR	MPR-35H 35' 3.33 35 DETAIL LA13

- NOTES:
- 1) CONTRACTOR SHALL USE PC SCREENS ON FIXED SPRAY HEADS AS NEEDED TO ACHIEVE APPROPRIATE RADII.
 - 2) CONTRACTOR SHALL USE VARIABLE-ARC ROTARY NOZZLES WHERE NECESSARY.
 - 3) CONTRACTOR SHALL ADJUST ROTOR ARCS WHERE NECESSARY.

SLEEVING / WIRING NOTES:

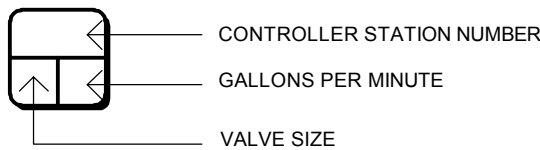
IN ADDITION TO PROVIDING SLEEVES FOR ALL PIPING UNDER ROADWAYS AND WALKWAYS, THE IRRIGATION CONTRACTOR SHALL PROVIDE AND INSTALL SCH. 40 PVC SLEEVES FOR ALL CONTROLLER WIRES OCCURRING UNDER ALL ROADWAYS AND WALKWAYS. SLEEVES FOR CONTROLLER WIRES SHALL BE 2" DIA. AND CONTAIN NO MORE THAN 25 WIRES.

IRRIGATION DISCLAIMER

THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.

IRRIGATION CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL FINAL QUANTITIES PER DRAWINGS AND SPECIFICATIONS. ANY QUANTITIES PROVIDED ARE PROVIDED AS A CONVENIENCE TO THE CONTRACTOR ONLY AND SHALL NOT BE CONSIDERED ABSOLUTE.

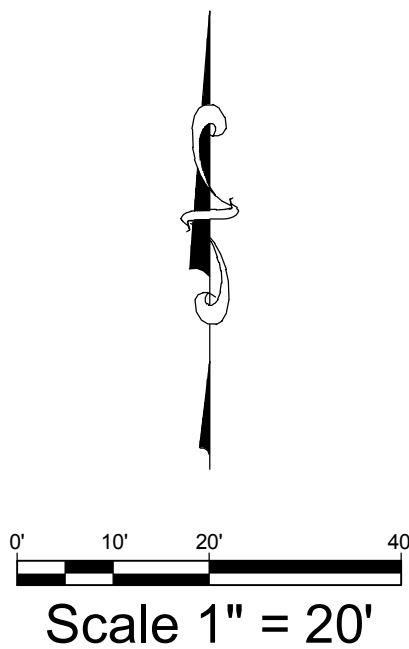
VALVE KEY



CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION AS NEEDED TO PROPERLY ESTABLISH SEED. IRRIGATION SYSTEM SHALL PROVIDE 100% HEAD-TO-HEAD COVERAGE DURING GROWING SEASON. SEE "SWPPP SEED ESTABLISHMENT NOTES" ON SHEET LP-1.

CONTROLLER NOTE
LOCATE CONTROLLER AT LOCATION SHOWN ON PLAN. VERIFY LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE.

120 VAC POWER TO CONTROLLER LOCATION IS NOT WITHIN THE IRRIGATION CONTRACTOR'S SCOPE OF WORK, AND SHALL BE PROVIDED BY OTHERS. HOOK-UP OF CONTROLLER TO 120 VAC SHALL BE PERFORMED BY THE IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF WIRE SLEEVE PENETRATIONS THROUGH BUILDING WITH OWNER AND GENERAL CONTRACTOR. STATION RUN ORDER SHALL MATCH PLANS.



CHRISTIAN BROTHERS AUTOMOTIVE CORP.

CITY OF FORT COLLINS
COUNTY OF LARIMER
CHRISTIAN BROTHERS AUTOMOTIVE
BLOCK 1, UPLAND'S PROSPECT BUSINESS PARK P.U.D.
IRRIGATION PLAN

DESIGNED BY	LML	DATE	06/15/2017
DRAWN BY	LML	PREPARED BY	
CHECKED BY	LML/RM	REVISION DESCRIPTION	
		CLIENT COMMENTS	

INITIAL SUBMITTAL	06/08/2017
DRAWING SIZE	24" X 36"
SURVEY FIRM	BASELINE
SURVEY DATE	
JOB NO.	15298
DRAWING NAME	
SHEET	LI-1 OF 14

IRRIGATION SPECIFICATIONS

GENERAL

- A. QUALIFICATIONS OF IRRIGATION CONTRACTOR
1. ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE IRRIGATION CONTRACTING FIRM SPECIALIZING IN IRRIGATION SYSTEMS. SEE THE IRRIGATION PLAN FOR SPECIFIC EQUIPMENT AND SYSTEM LAYOUT.
 2. THE IRRIGATION CONTRACTOR MUST HAVE ON ITS STAFF A LICENSED IRRIGATION INSTALLER, AS REGULATED BY THE APPROPRIATE LOCAL JURISDICTION. A LICENSED IRRIGATION INSTALLER SHALL BE PRESENT AT THE PROJECT SITE AT ALL TIMES AS WORK IS IN PROGRESS. THE OWNER MAY DEMAND THAT WORK STOP UNTIL THE CONTRACTOR PROVIDES FOR A LICENSED IRRIGATION INSTALLER TO BE PRESENT AT THE PROJECT SITE AND SUPERVISING ALL IRRIGATION WORK.
 3. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.
- B. SCOPE OF WORK
1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK SPECIFIED HEREIN AND / OR SHOWN ON THE IRRIGATION PLANS, NOTES, AND DETAILS.
 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.
 3. THE INTENT OF THE IRRIGATION SYSTEM IS TO PROVIDE 100% COVERAGE OF ALL LANDSCAPE AREAS. THE IRRIGATION PLAN IS GENERALLY DIAGRAMMATIC; COORDINATE IRRIGATION INSTALLATION WITH UTILITY INSTALLATIONS. ACTUAL LOCATION OF CONTROLLER, BACKFLOW DEVICE, PIPING, VALVES, SPRAY HEADS, DRIP IRRIGATION, AND RELATED EQUIPMENT MAY NEED TO BE ADJUSTED BASED ON ACTUAL SITE CONDITIONS.
 4. THE IRRIGATION DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON THE PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
 5. FOR CLARITY PURPOSES, SOME IRRIGATION LINES AND EQUIPMENT ARE SHOWN IN HARDCAPE AREAS WITHOUT ACCESS SLEEVES; THESE LINES SHALL BE INSTALLED IN A COMMON TRENCH OR AT THE BACK OF CURB IN LANDSCAPE AREAS. MINOR FIELD ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

PRODUCTS

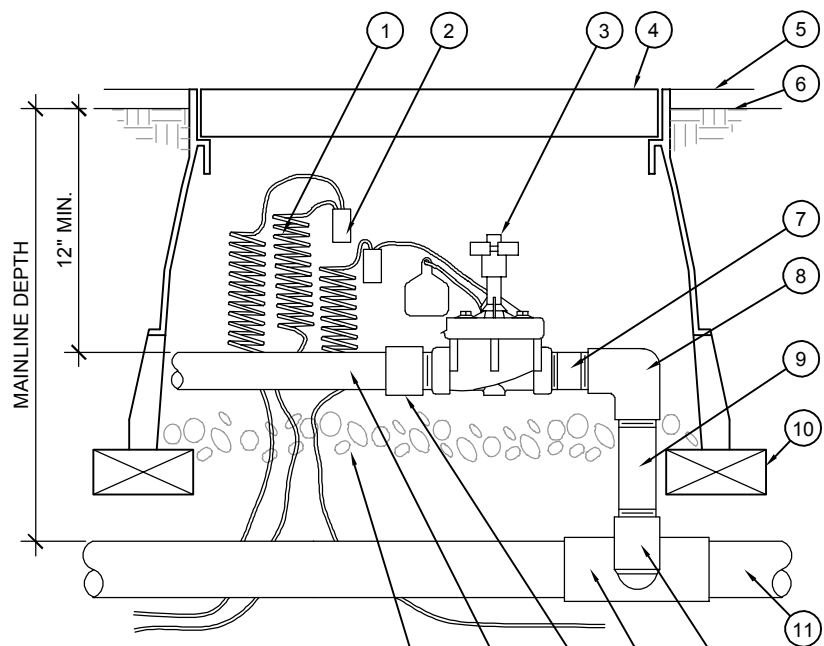
- A. ALL MATERIALS SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND SHALL BE THE BEST OF THEIR CLASS AND KIND. ALL MATERIALS SHALL HAVE A MINIMUM GUARANTEE OF ONE YEAR AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP. ALL MATERIALS SHALL BE OF THE BRANDS AND TYPES NOTED ON THE DRAWINGS OR AS SPECIFIED HEREIN, OR APPROVED EQUAL. THE CONTRACTOR MUST FIRST OBTAIN APPROVAL FROM THE IRRIGATION CONTRACTOR'S APPROVED EQUAL BEFORE INSTALLING SUCH MATERIALS IN THE FIELD, OR THE CONTRACTOR MAY BE REQUIRED TO REPLACE SUCH MATERIALS AT HIS OWN COST.
- B. BACKFLOW PREVENTION DEVICES SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS. INSTALL BACKFLOW PREVENTION UNITS IN ACCORDANCE WITH IRRIGATION CONSTRUCTION DETAILS AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
- C. PIPING
1. PRESSURE SUPPLY LINES, DOWNSTREAM OF THE POINT-OF-CONNECTION:
 - a. SCHEDULE 40 PVC FOR ALL PIPE 1-1/2" OR LESS
 - b. CLASS 315 PVC FOR ALL PIPE 2" TO 2-1/2"
 - c. CLASS 200 PVC, GASKETED, FOR ALL PIPE 3" AND LARGER
 2. SLEEVING AND NON-PRESSURE LATERAL LINES (DOWNSTREAM FROM VALVES): CLASS 200 PVC
 3. FITTINGS: SCH. 40 PVC, EXCEPT AS NOTED OTHERWISE.
- D. VALVES AND DRIP VALVE ASSEMBLIES: TYPE AND SIZE AS NOTED ON PLANS. EACH VALVE SHALL BEAR A PRE-MANUFACTURED, NUMBERED WATERPROOF TAG BEARING A NUMBER CORRESPONDING TO ITS VALVE SEQUENCE OF OPERATION ON THE CONTROLLER. THE OPERATION SEQUENCE SHALL MATCH THAT AS SHOWN ON THE PLANS.
- E. QUICK COUPLERS, BALL VALVES, AND GATE VALVES: TYPE AND SIZE PER PLANS.
- F. VALVE BOXES: TYPE AND SIZE AS NOTED ON DETAILS. ALL VALVE BOXES SHALL BE LOCKING BOLT-DOWN TYPE, FURNISHED WITH LIDS AND BOLTS. BOXES SHALL BE OF A SIZE TO CONTAIN THE ENTIRE VALVE AND/OR VALVE ASSEMBLY. THE VALVE BOX LID SHALL HAVE THE VALVE STATION NUMBER HEAT BRANDED INTO THE LID WITH 2" HIGH LETTERS.
- G. FIXED SPRAY HEADS AND ROTORS: PLASTIC BODY POP-UP, WITH A REMOVABLE PLASTIC SPRAY NOZZLE. EXACT TYPE, MODEL, AND NOZZLE SHALL BE AS INDICATED ON PLANS.
- H. INTEGRAL EMITTER DRIP TUBING: TUBING MODEL AND FLOW RATE AS NOTED ON PLANS, WITH INTEGRAL EMITTERS WELDED TO THE INSIDE WALL OF THE TUBING AS AN INTEGRAL PART OF THE TUBING ASSEMBLY.
- I. AUTOMATIC CONTROLLER: TYPE AND MODEL PER PLANS. PROVIDE VANDAL-PROOF ENCLOSURE FOR ALL EXTERIOR INSTALLATIONS. PROVIDE LINE-VOLTAGE DISCONNECT SWITCH WITH GROUND FAULT PROTECTION.
- J. 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.F. APPROVED FOR DIRECT BURIAL. SINGLE CONDUCTOR IRRIGATION WIRE. EACH CONTROLLER SHALL HAVE A DIFFERENT COLOR STATION AND COMMON WIRE.
1. STATION WIRE- ANY COLOR EXCEPT WHITE OR BLUE
 2. COMMON WIRE - WHITE
 3. EXTRA COMMON WIRES - BLUE
- K. WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF COMPOUND OR GEL. ALL FIELD SPLICES SHALL BE LOCATED IN A 6 INCH ROUND VALVE BOX.
- L. RAIN SENSOR: TYPE AND MODEL PER PLANS.

METHODS

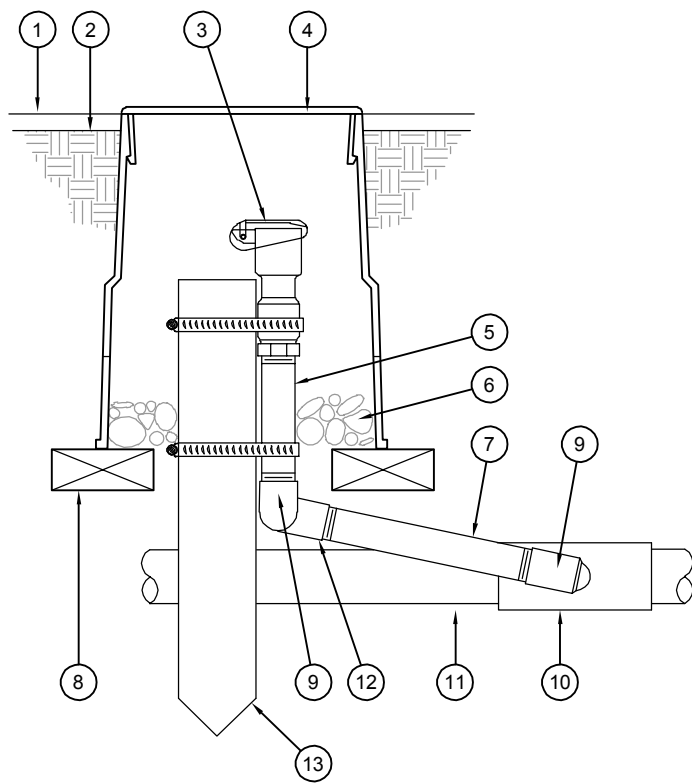
- A. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST. ENSURE FIELD COORDINATION IS MADE EARLY ON IN THE CONSTRUCTION PHASE SO PLACEMENT LOCATION IS CORRECT.
- B. THE IRRIGATION CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK, AND SHALL OBTAIN ALL ENGINEERING, LANDSCAPE, AND OTHER APPLICABLE PLANS & DOCUMENTS. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE PLANS AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY.
- C. THE IRRIGATION CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADES OR DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE IRRIGATION DESIGNER. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS AND NECESSARY COSTS. THE IRRIGATION CONTRACTOR SHALL COORDINATE AND PAY FOR THE INSTALLATION OF THE IRRIGATION TAP AND METER.
- D. THE IRRIGATION CONTRACTOR SHALL PAY ANY AND ALL FEES ASSOCIATED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM.
- F. AT LEAST SEVEN DAYS BEFORE BEGINNING WORK, CONFIRM THE STATIC WATER PRESSURE IS AT LEAST 70 PSI. IF STATIC WATER PRESSURE IS LESS THAN STATED, DO NOT PROCEED WITHOUT FIRST NOTIFYING THE IRRIGATION DESIGNER AND OWNER IN WRITING, AND OBTAINING SUBSEQUENT DIRECTION FOR CORRECTIONAL MEASURES. SHOULD THE IRRIGATION CONTRACTOR CHOOSE TO BEGIN THE INSTALLATION WITHOUT SUCH NOTIFICATION, THE IRRIGATION CONTRACTOR WILL ASSUME THE RESPONSIBILITY FOR ALL COSTS INCURRED TO ENSURE THE SYSTEM IS WORKING PROPERLY. NO CHANGE ORDERS WILL BE AUTHORIZED IN SUCH CIRCUMSTANCES.
- G. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATIONS OF WALLS, STRUCTURES AND UTILITIES.
- H. COORDINATE WITH THE OWNER THE PROPOSED LOCATIONS OF THE AUTOMATIC CONTROLLER AND ANY REQUIRED SLEEVES THROUGH THE BUILDING FOR CONTROL WIRES.
- I. TRENCHING NEAR EXISTING TREES
1. CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1" FOR EVERY 1" OF TRUNK DIAMETER AT-BREAST-HEIGHT (4.5 ABOVE THE AVERAGE GRADE AT THE TRUNK).
 2. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ.
 3. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.
 4. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.

- J. ALL BACKFILL MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE OWNER. BACKFILL MATERIAL SHALL BE FREE FROM RUBBISH, ROCK, LARGE STONES, BRUSH, SOD, FROZEN MATERIAL OR OTHER UNSUITABLE SUBSTANCES THAT MAY DAMAGE PIPE DURING THE BACKFILLING OPERATIONS. IN THE EVENT THAT THE MATERIAL FROM THE EXCAVATION OR TRENCHING IS FOUND TO BE UNSUITABLE FOR USE IN BACKFILL, IT SHALL BE REMOVED FROM THE SITE AND PROPERLY AND LEGALLY DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL THEN PURCHASE AND FURNISH SUITABLE BACKFILL MATERIAL CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS FREE OF DEBRIS.
- K. BACKFLOW INSTALLATION. CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER SOURCES AT LOCATION SHOWN ON PLANS AND AS APPROVED BY THE OWNER, AND SHALL MAKE ANY MINOR CHANGES IN LOCATION AS MAY BE NECESSARY DUE TO ACTUAL SITE CONDITIONS. BACKFLOW HEIGHT SHALL BE AS PER LOCAL CODES AND IRRIGATION DETAILS. INSTALL A BRASS BALL VALVE IMMEDIATELY UPSTREAM OF THE BACKFLOW DEVICE TO SERVE AS AN ISOLATION VALVE.
- L. PIPING:
1. PIPE SIZE SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS FOR LARGER SIZES MAY BE APPROVED.
 2. MAINLINE PIPE AND WIRES SHALL BE INSTALLED WITH A MINIMUM COVER OF 24 INCHES. LATERAL PIPE SHALL BE INSTALLED WITH A MINIMUM COVER OF 18 INCHES.
 3. ASSEMBLE ALL THREADED FITTINGS WITH TEFLON TAPE, WHICH SHALL BE APPLIED TO MALE THREADS ONLY.
 4. ALL SOLVENT-WELD CONNECTIONS SHALL BE MADE WITH APPROVED SOLVENT-WELD PRIMER AND GLUE.
 5. PIPE SHALL BE INSTALLED WITH A MINIMUM OF 4" HORIZONTAL CLEARANCE FROM ANY OTHER PIPE AND 2" VERTICAL CLEARANCE FROM ANY PIPES THAT CROSS OVER OR UNDER.
 6. VALVES SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND THE IRRIGATION DETAILS. EACH VALVE SHALL BEAR A PRE-PRINTED WATERPROOF TAG BEARING THE APPROPRIATE CONTROLLER STATION NUMBER.
 7. VALVE BOXES SHALL BE INSTALLED FLUSH WITH THE GRADE, WITH CLEAN PEA GRAVEL LOCATED BELOW THE VALVE AS NOTED ON THE DETAILS. EACH VALVE BOX COVER SHALL BE HEAT-BRANDED WITH THE CONTROLLER STATION NUMBER.
 8. DRIP IRRIGATION EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND THE IRRIGATION DETAILS.
 9. SUBSURFACE DRIP LINES SHALL BE BURIED NO MORE THAN 2" BELOW FINISH GRADE.
 10. DRIP LINES MOUNTED ON GRADE SHALL BE LOCATED BENEATH LANDSCAPE FABRIC, AND SECURED IN PLACE WITH WIRE STAPLES AT A MAXIMUM OF 48" ON CENTER.
- P. SPRAY, ROTOR, AND BUBBLER HEADS:
1. ALL SPRAY AND ROTOR HEAD LOCATIONS SHALL BE STAKED, FLAGGED AND/OR OTHERWISE CLEARLY MARKED ON THE GROUND PRIOR TO INSTALLATION. SPRINKLER HEAD STAKING SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE INSTALLATION.
 2. ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12 INCH MINIMUM LENGTH OF 3/4 INCH FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #700 SOLVENT AND #7-70 PRIMER. ALL ROTORS SHALL BE CONNECTED TO LATERAL LINES WITH PRE-MANUFACTURED SWING JOINTS.
 3. ALL ROTOR, SPRAY AND BUBBLER HEADS SHALL BE SET PERPENDICULAR AND FLUSH TO FINISH GRADE AND WITH A CLEARANCE OF FOUR INCHES MINIMUM FROM THE EDGE OF ANY BUILDINGS, WALLS, BOULDERS, AND HARDCAPE, UNLESS OTHERWISE SPECIFIED.
 4. ALL ROTOR, SPRAY AND BUBBLER HEADS AND VALVES SHALL BE FLUSHED AND ADJUSTED FOR OPTIMUM COVERAGE WITH MINIMUM OVERSPRAY ON WALLS, STREETS, WALLS, ETC.
- Q. AUTOMATIC CONTROLLER:
1. INSTALL THE CONTROLLER AT THE LOCATION INDICATED BY THE OWNER. INSTALL CONTROLLER WITH A BACKUP BATTERY AS RECOMMENDED BY THE MANUFACTURER.
 2. THE IRRIGATION CONTRACTOR SHALL COORDINATE 120 V.A.C. ELECTRICAL POWER TO CONTROLLER AND DEDICATE ONE (1) 20-AMP BREAKER FOR EACH CONTROLLER. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MAKE THE FINAL HOOK-UP FROM THE ELECTRICAL SOURCE TO THE CONTROLLER UNIT ONLY.
 3. ALL VALVE CONTROL WIRE SHALL BE AWG 14 TYPE UF, 800 VOLT TEST, DIRECT BURIAL. NO SPLICES SHALL BE ALLOWED EXCEPT AT VALVES AND CONTROLLER, WHERE SPLICES MAY BE NECESSARY DUE TO EXCESSIVELY LONG WIRE RUNS, THE CONTRACTOR SHALL MAKE ALL SPLICES IN 6" ROUND VALVE BOXES WITH 3M'S "DBY-DIRECT BURIAL SPLICE KIT". THE CONTRACTOR SHALL LABEL ALL WIRE WITH WATERPROOF MARKERS AT ALL SPLICES AND VALVE MANIFOLDS, AND SHALL LEAVE A 24" COIL OF EXCESS WIRE AT EACH CONNECTION.
 4. PROVIDE #10 COMMON WIRE, DIRECT BURIAL, TO ALL REMOTE CONTROL VALVES.
 5. CONNECT ALL DIRECT BURIAL WIRES TO VALVES USING 3M'S "DBY-DIRECT BURIAL SPLICE KIT" (UNLESS OTHERWISE SPECIFIED).
 6. PROVIDE THREE ADDITIONAL IRRIGATION CONTROL WIRES ALONG EACH BRANCH OF MAINLINE FOR FUTURE EXPANSION. STUB ADDITIONAL CONTROL WIRES INTO BACK OF IRRIGATION CONTROLLERS.
 7. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL CONTROL WIRE SLEEVES AND PIPE SLEEVES UNDER PAVED AREAS PRIOR TO PAVING - SEE SLEEVING NOTES.
 8. INSTALL THE RAIN SENSOR IN THE VICINITY OF THE CONTROLLER, AND COORDINATE LOCATION WITH THE OWNERSHIP. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO PLACE THE RAIN SENSOR IN A LOCATION WHERE IT CAN RECEIVE ADEQUATE RAINFALL WITHOUT OBSTRUCTIONS. IF IT IS PLACED IN AN INADEQUATE LOCATION, THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO RELOCATE IT AT NO ADDITIONAL COST TO THE OWNER.
 9. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- T. QUALITY CONTROL:
1. PERFORM COVERAGE TESTS AFTER SPRINKLER SYSTEM IS COMPLETED, BUT PRIOR TO ANY PLANTING AND PERFORM TESTING IN THE PRESENCE OF THE IRRIGATION DESIGNER AND THE CONSTRUCTION MANAGER.
 2. TEST SYSTEM TO ASSURE THAT ALL LAWN AND PLANTING AREAS ARE WATERED COMPLETELY AND UNIFORMLY.
 3. MAKE ALL NECESSARY ADJUSTMENTS TO PROVIDE COMPLETE COVERAGE, INCLUDING REALIGNMENT OF HEADS AND REPLACEMENT OF NOZZLES.
- U. CLEAN UP
1. DURING IRRIGATION EXCAVATION AND INSTALLATION, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION.
 2. DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.
- V. INSPECTION AND ACCEPTANCE
1. UPON COMPLETION OF THE WORK, THE IRRIGATION CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE IRRIGATION CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
 2. WHEN THE INSPECTED WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.
 3. THE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.
 4. CONTROLLER CHART: THE IRRIGATION CONTRACTOR SHALL PROVIDE A 8 1/2" X 11" COLOR-CODED, LAMINATED COPY OF THE IRRIGATION LAYOUT AND PLACE IT IN THE CONTROLLER'S COVER. THE CONTROLLER CHART SHALL CLEARLY DELINEATE THE AREAS COVERED BY EACH VALVE, USING A SEPARATE COLOR FOR EACH ZONE.
 5. TURN THE FOLLOWING ITEMS IN TO THE OWNER UPON COMPLETION OF THE INSTALLATION:
 - a. QUICK COUPLER KEYS (2)
 - b. CONTROLLER MANUAL (1)
 - c. CONTROLLER KEYS (2)
 - d. A MINIMUM OF (2) COPIES OF RECORD DRAWINGS. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.
- W. REFER TO THE PLANTING SPECIFICATIONS FOR ADDITIONAL CONDITIONS OF FINAL ACCEPTANCE AND START OF THE MAINTENANCE PERIOD.
- X. WARRANTY
1. THE IRRIGATION SYSTEM SUPPLIED AND INSTALLED SHALL BE WARRANTED (LABOR AND MATERIALS) TO REMAIN OPERATIONAL FOR A PERIOD OF 12 MONTHS AFTER THE DATE OF FINAL ACCEPTANCE. DURING THIS PERIOD, THE CONTRACTOR SHALL ALSO REPAIR ANY SETTLEMENT OF THE IRRIGATION TRENCHES.
 2. BY THE END OF THE WARRANTY PERIOD, ANY IRRIGATION PART THAT IS EITHER NON-OPERATIONAL OR THAT IS OPERATING BELOW STANDARDS AS DETERMINED BY THE OWNER, SHALL BE REMOVED FROM THE SITE AND SHALL BE REPLACED. REPLACEMENTS SHALL BE OF THE SAME KIND AS SPECIFIED IN THE IRRIGATION LEGEND, AND SHALL BE INSTALLED AS ORIGINALLY SPECIFIED.
 3. IRRIGATION PARTS DAMAGED OR IMPAIRED DUE TO ACTS OF GOD, VANDALISM, AND/OR THE OWNER'S IMPROPER MAINTENANCE SHALL NOT BE COVERED BY THIS WARRANTY.

D DRIP CONTROL ZONE KIT
SCALE: NTS



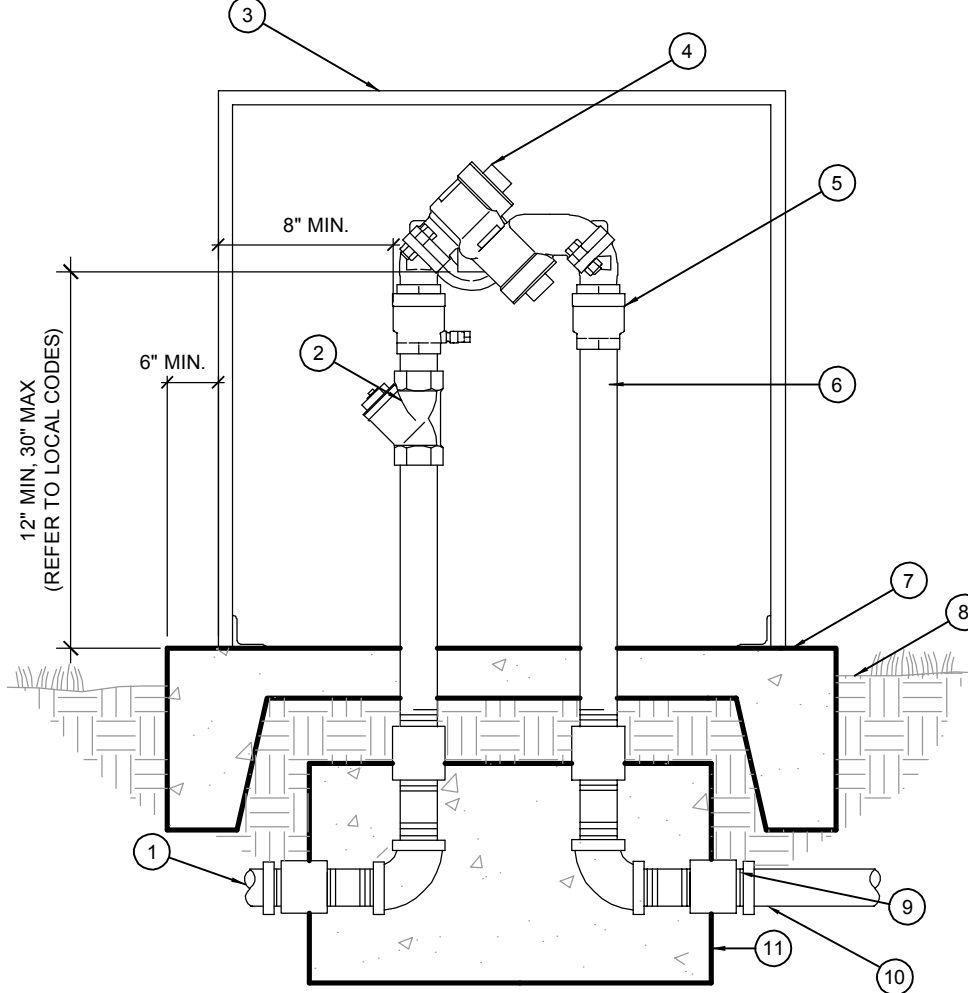
E REMOTE CONTROL VALVE
SCALE: NTS



F QUICK COUPLER
SCALE: NTS

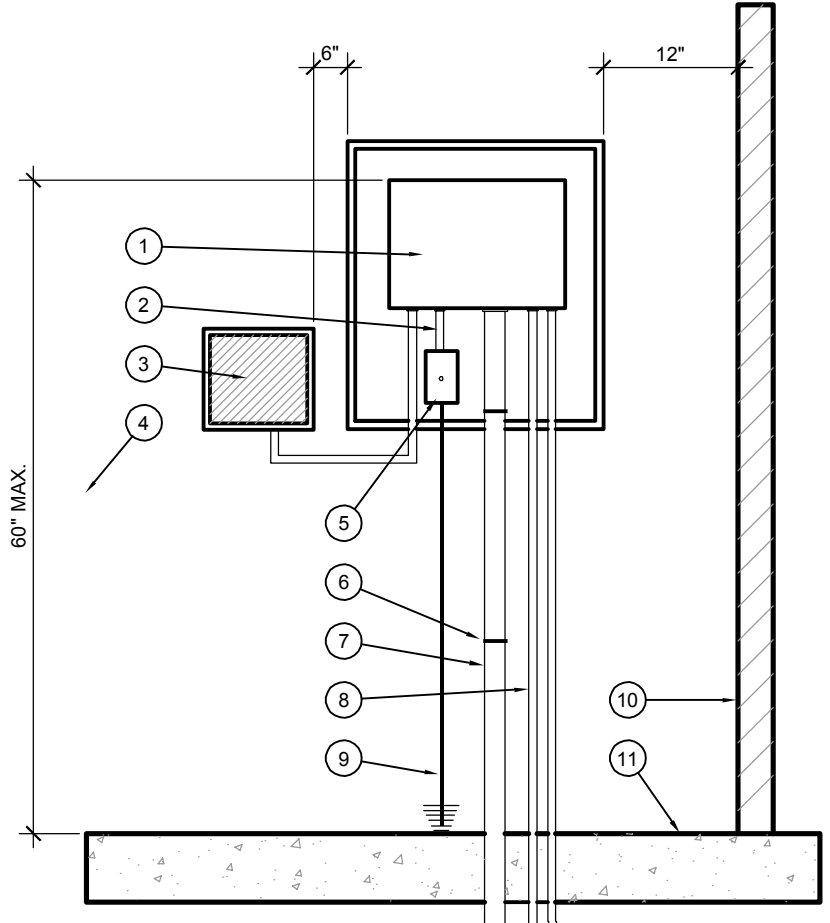
1. TOP OF MULCH
2. FINISHED GRADE-1" BELOW TOP OF BOX IN TURF AREAS, 2" IN SHRUB AREAS
3. QUICK-COUPLING VALVE
4. 1" ROUND PLASTIC VALVE BOX BY CARSON (OR EQUAL)
5. 6" LONG BRASS NIPPLE
6. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
7. BRASS NIPPLE (LENGTH AS REQUIRED)
8. BRICK (1 OF 2)
9. PVC SCH 40 STREET ELL
10. PVC SCH 40 TEE OR ELL
11. PVC MAINLINE PIPE
12. PVC SCH 40 ELL
13. 2" x 2" REDWOOD STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM

C BACKFLOW PREVENTER
SCALE: NTS



1. TO POINT OF CONNECTION - ADAPT AS NECESSARY. ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES
2. BRASS WYE STRAINER W/60 MESH SCREEN
3. ENCLOSURE PER IRRIGATION LEGEND
4. BACKFLOW PREVENTER UNIT
5. BRASS UNION (TYPICAL)
6. BRASS NIPPLES (TYPICAL)
7. 4" CONCRETE PAD, SLOPE TO DRAIN AWAY FROM BACKFLOW PREVENTER
8. FINISH GRADE, 2" BELOW PAD
9. BRASS COUPLING
10. PVC ADAPTER AND MAINLINE PIPE
11. 12"x12"x24" THRUST BLOCK

1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION (ANY APPROVED)
3. REMOTE CONTROL VALVE ASSEMBLY
4. JUMBO PLASTIC VALVE BOX BY CARSON (OR EQUAL)
5. TOP OF MULCH
6. FINISHED GRADE-1" BELOW TOP OF BOX IN TURF AREAS, 2" IN SHRUB AREAS
7. PVC UNION (2)
8. PVC SCH 40 MALE ADAPTER (2)
9. PVC LATERAL PIPE
10. BRICK (1 OF 4)
11. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
12. PVC MAINLINE PIPE
13. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
14. SCH. 40 PVC ELL
15. SCH. 40 PVC TEE OR ELL
16. SCH. 40 PVC THREADED ELL

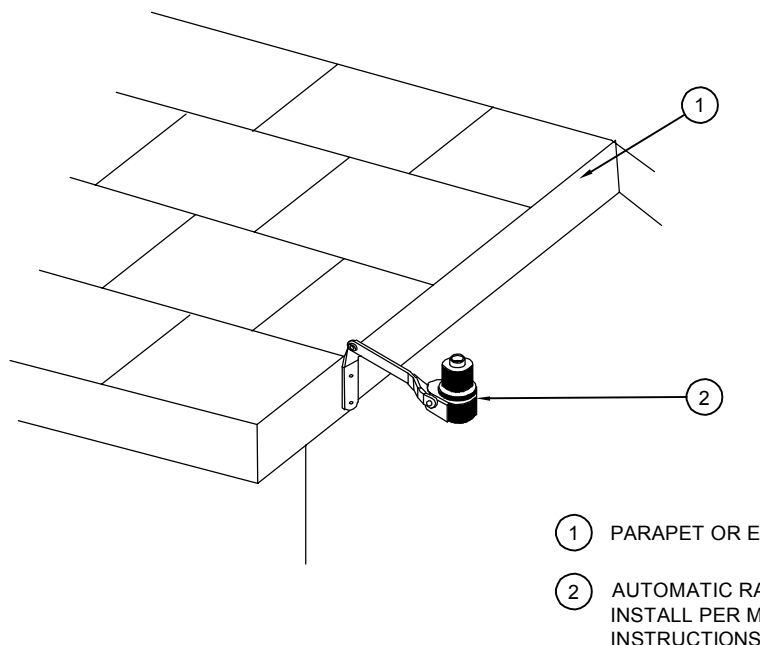


- NOTES:
1. MOUNT CONTROLLER AND CABINET PER MANUFACTURER'S DIRECTIONS.
 2. 120 V.A.C. POWER PROVIDED BY OTHERS. LANDSCAPE CONTRACTOR SHALL MAKE FINAL CONNECTION AT CONTROLLER. CONNECT TO ELECTRICAL SUPPLY PER NATIONAL ELECTRIC CODE AND LOCAL CODE.
 3. LOCATE GROUND ROD 8' MIN. FROM CONTROLLER. VERIFY LOCATION OF GROUND ROD, CONTROLLER AND SOURCE OF ELECTRICITY WITH MANUFACTURER'S REPRESENTATIVE AND OWNER AS PART OF PRE CONSTRUCTION MEETING.

A CONTROLLER - WALL MOUNT, INDOOR
SCALE: NTS

1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION (ANY APPROVED)
3. REMOTE CONTROL VALVE ASSEMBLY
4. JUMBO PLASTIC VALVE BOX BY CARSON (OR EQUAL)
5. TOP OF MULCH
6. FINISHED GRADE-1" BELOW TOP OF BOX IN TURF AREAS, 2" IN SHRUB AREAS
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH. 40 PVC ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3-INCH MINIMUM DEPTH OF 3-INCH WASHED GRAVEL

B RAIN SENSOR, ROOF MOUNT
SCALE: NTS



1. PARAPET OR EAVE
2. AUTOMATIC RAIN SENSOR - INSTALL PER MANUFACTURER'S INSTRUCTIONS



DESIGNED BY

LML

DATE

06/15/2017

PREPARED BY

LML

REVISION

DESCRIPTION

CLIENT COMMENTS

CHRISTIAN BROTHERS AUTOMOTIVE CORP.

CITY OF FORT COLLINS

COUNTY OF LARIMER

CHRISTIAN BROTHERS AUTOMOTIVE

BLOCK 1, UPLAND'S PROSPECT BUSINESS PARK P.U.D.

IRRIGATION SPECIFICATIONS AND DETAILS

INITIAL SUBMITTAL

06/08/2017

DRAWING SIZE

24" X 36"

SURVEY FIRM

SURVEY DATE

BASLINE

JOB NO.

15298

DRAWING NAME

SHEET

11-2

OF 14

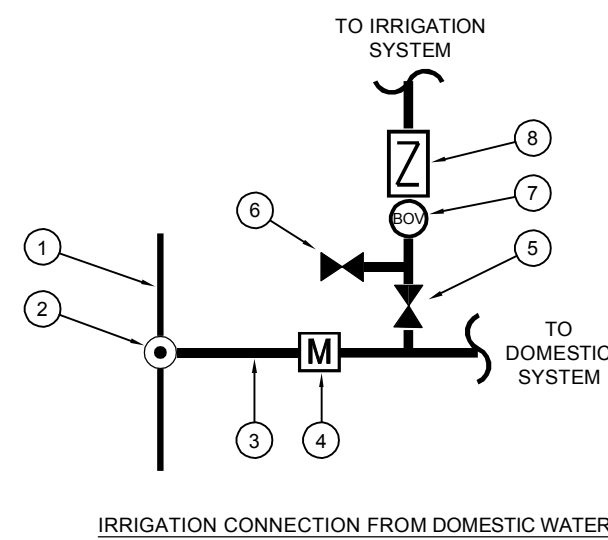
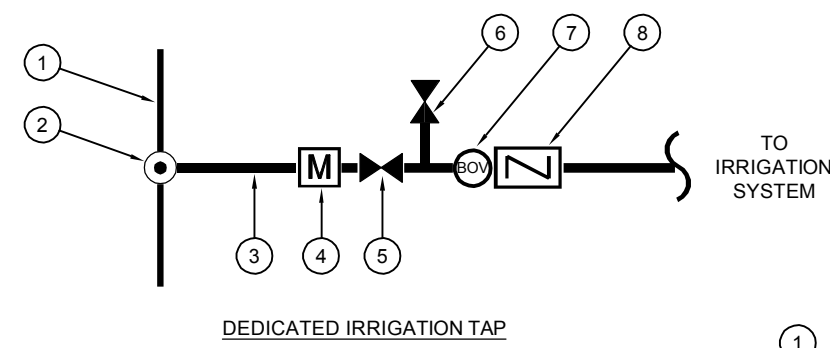
BASELINE

Engineering · Planning · Surveying

1950 FORD STREET · GOLDEN, COLORADO 80401

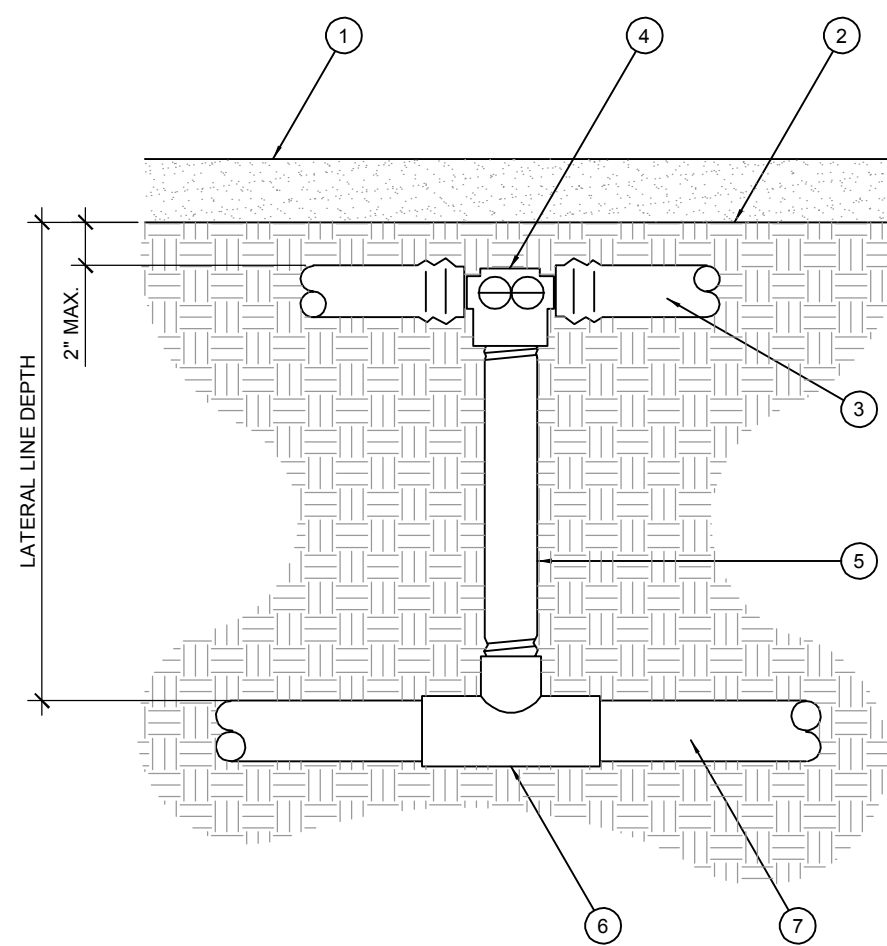
WWW.BASELINEENGINEERING.COM

P: 303.940.9660 · F: 303.940.9660



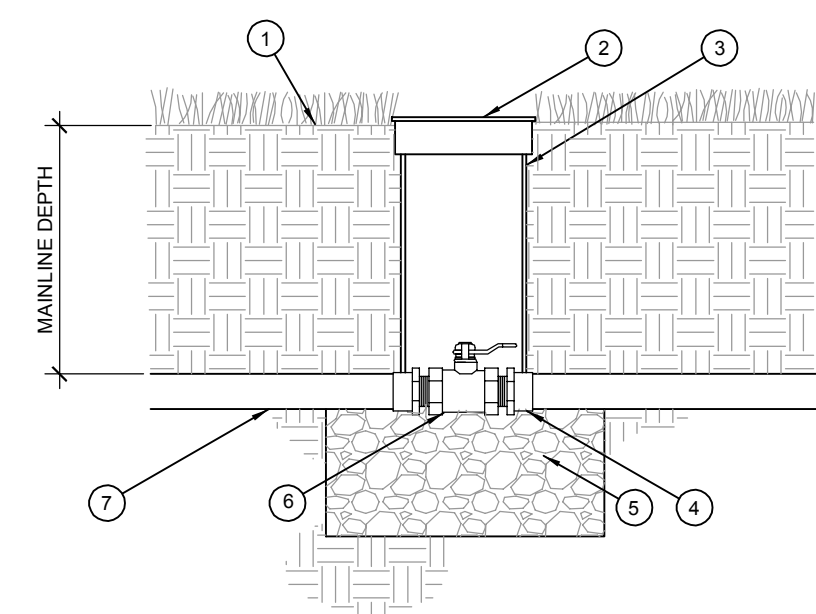
- 1 CITY MAINLINE
2 TAP
3 SERVICE LINE
4 WATER METER
5 ISOLATION VALVE (PER PLAN)
6 MANUAL DRAIN VALVE (BALL VALVE)
7 BLOW OFF VALVE (BOV)
8 BACKFLOW DEVICE (WHERE SHOWN)
- WINTERIZATION PROCEDURE:
1. TURN OFF EITHER THE METER AND ISOLATION VALVE (DEDICATED IRRIGATION METER) OR ISOLATION VALVE (DOMESTIC TAP).
2. OPEN ONE CONTROL VALVE TO RELIEVE PRESSURE.
3. SLOWLY OPEN MANUAL DRAIN VALVE.
4. REPEAT PROCEDURE FOR ALL MANUAL DRAIN VALVES ALONG IRRIGATION MAINLINE.
5. CLOSE MANUAL DRAIN VALVES AND BLOW OUT REMAINING WATER FROM THE BLOWOUT VALVE. SLOWLY INCREASE AIR PRESSURE, NOT TO EXCEED 80 PSI. DO NOT BLOWOUT SYSTEM FROM BACKFLOW. BLOWOUT SYSTEM TWICE BUT NOT TO EXCEED AT MORE THAN 2 MIN. INTERVALS.

M WATER TAP DIAGRAM
SCALE: NTS



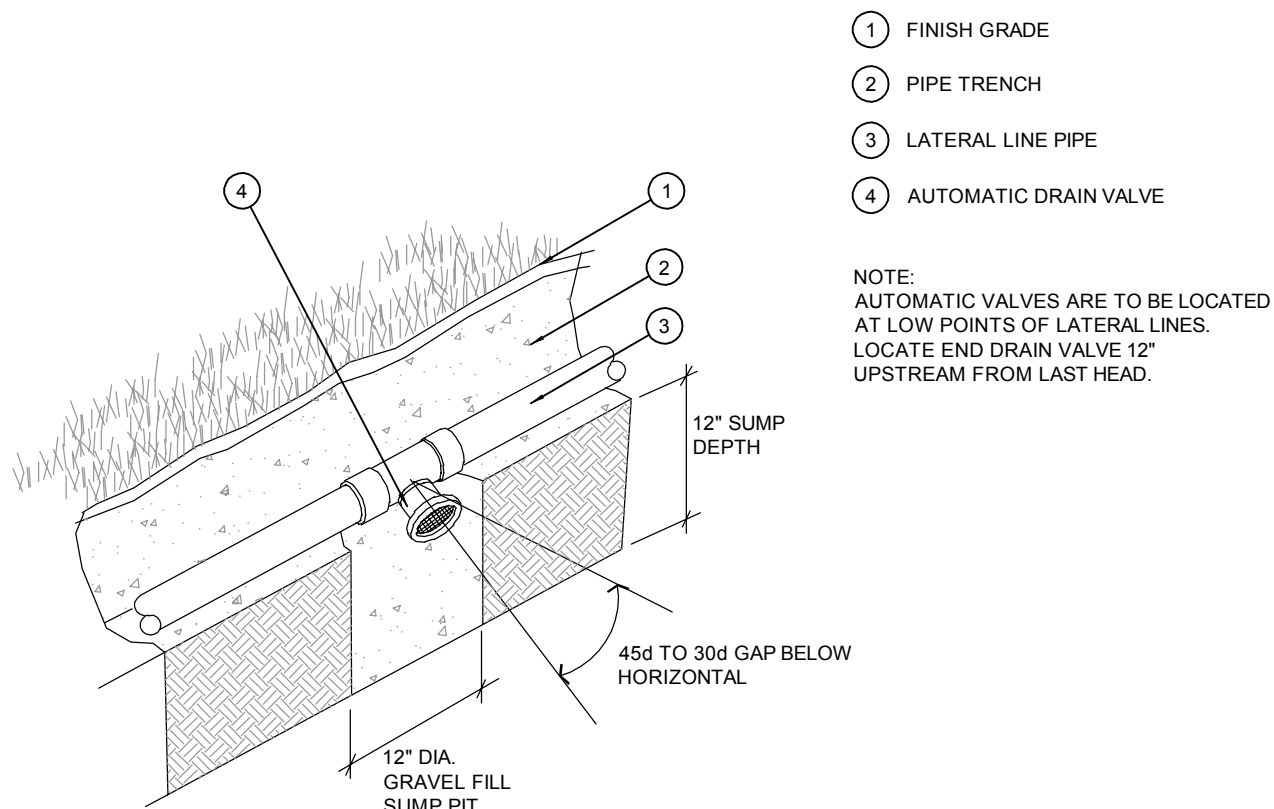
- 1 TOP OF MULCH
2 FINISH GRADE
3 DRIP LINE PER PLAN
4 INSERT TEE OR ELBOW
5 SCH. 80 PVC NIPPLE (LINE SIZE)
6 SCH. 40 PVC TEE (SST)
7 SCH. 40 PVC SUPPLY HEADER (SIZE PER PLAN)

J SUBSURFACE DRIPLINE CONNECTION
SCALE: NOT TO SCALE



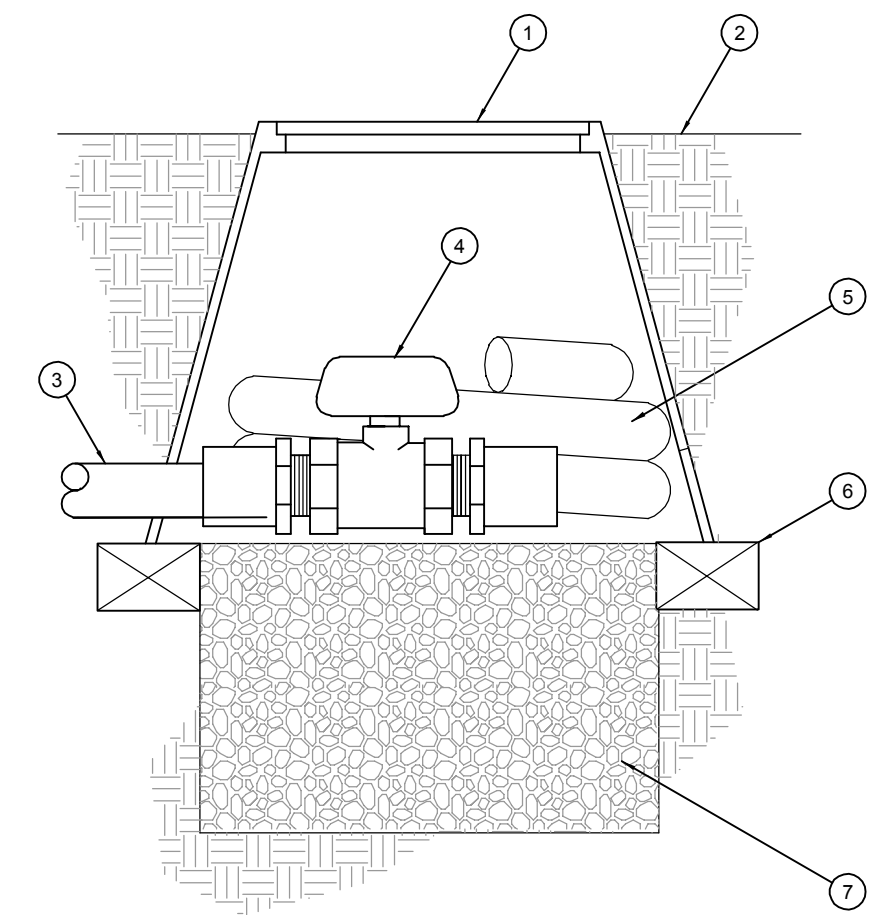
- 1 FINISH GRADE AT 1" BELOW TOP OF BOX IN TURF AREAS; 2" BELOW TOP OF BOX IN SHRUB/GROUND COVER AREAS
2 9" ROUND VALVE BOX WITH LOCKABLE LID
3 EXTENSION SECTION AS NECESSARY TO MEET GRADE
4 PVC MALE ADAPTER
5 3-INCH MINIMUM DEPTH OF 1/2-INCH WASHED GRAVEL
6 BRASS BALL VALVE (SIZED PER MAINLINE)
7 IRRIGATION MAINLINE

G BRASS BALL VALVE
SCALE: NTS



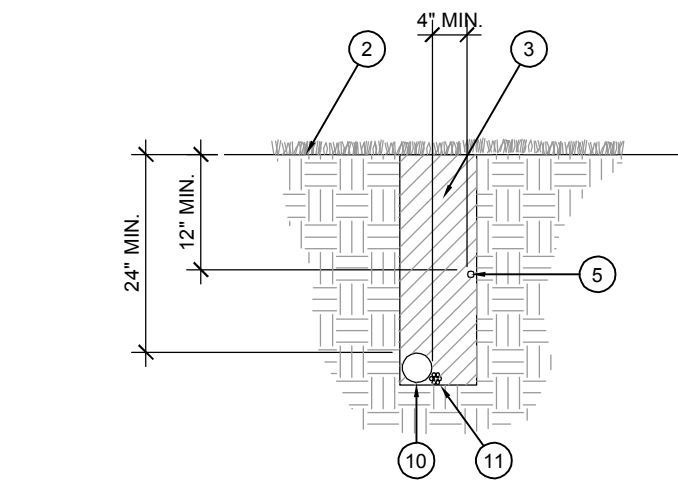
- 1 FINISH GRADE
2 PIPE TRENCH
3 LATERAL LINE PIPE
4 AUTOMATIC DRAIN VALVE
- NOTE:
AUTOMATIC VALVES ARE TO BE LOCATED AT LOW POINTS OF LATERAL LINES. LOCATE END DRAIN VALVE 12" UPSTREAM FROM LAST HEAD.

N AUTOMATIC DRAIN VALVE
SCALE: NOT TO SCALE



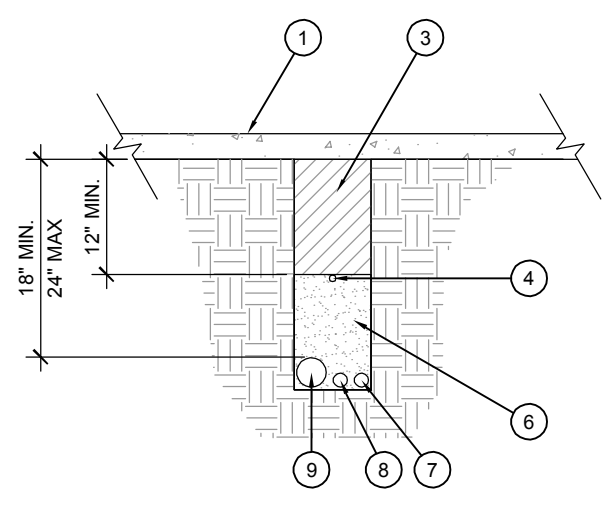
- 1 10" ROUND PLASTIC VALVE BOX WITH LOCKABLE LID, "CARSON" OR APPROVED EQUAL
2 FINISH GRADE - TOP OF VALVE BOX TO BE 2" ABOVE FINISH GRADE IN PLANTER AREAS
3 DRIP EXHAUST HEADER
4 BALL VALVE, LINE SIZE
5 3' COILED LENGTH OF LINE SIZE FLEX HOSE, SOLVENT WELD TO VALVE
6 RED BRICK TYPICAL, 3 REQUIRED
7 6" DEEP LAYER OF PEA GRAVEL

K FLUSH VALVE
SCALE: NTS



- 1 PAVEMENT SURFACE
2 FINISH GRADE
3 TRENCH BACKFILL
4 LOCATOR WIRE W/BURIED CAUTION TAPE
5 PVC IRRIGATION LATERAL - BURIED MIN. 12" BELOW GRADE
6 SAND BACKFILL
7 SCH. 40 PVC LATERAL SLEEVE - SEE PLANS FOR SIZE
8 SCH. 40 PVC WIRE SLEEVE FOR CONTROL WIRES, MIN. 2" DIA.
9 SCH. 40 PVC MAINLINE SLEEVE - SEE PLANS FOR SIZE
10 PVC IRRIGATION MAINLINE
11 CONTROL WIRES - TAPE TO MAINLINE AT 10' INTERVALS
12 PVC CAP, SOLVENT WELDED

TRENCHING

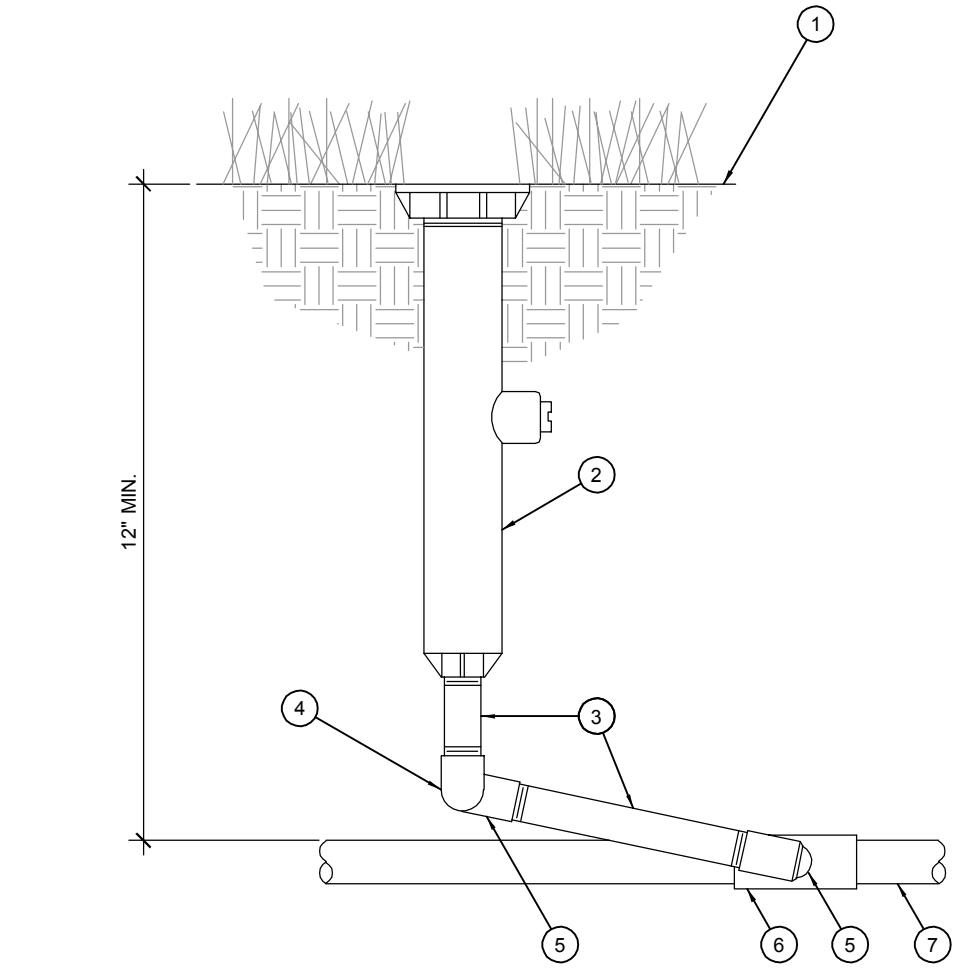


SLEEVEING

H PIPE AND SLEEVE INSTALLATION
SCALE: NTS

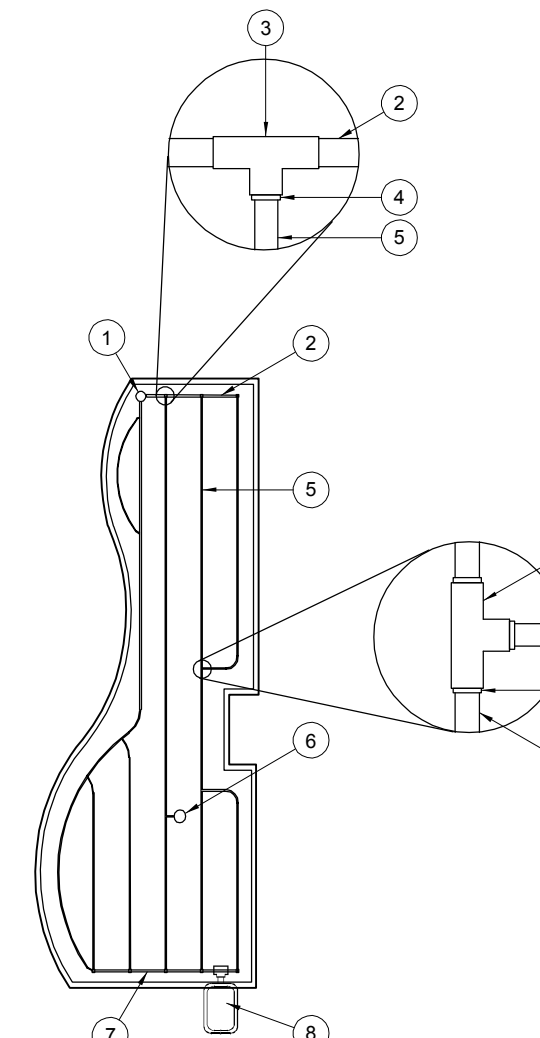
PRESSURE LOSS CALCULATIONS

PROJECT NAME: CBA Academy	
PROJECT NUMBER: Fort Collins, CO	
Static water pressure obtained from: Heather McDowell, Water Utilities Engineering	
Phone number: 970 224 6065	
Date: 8/24/2017	
VALVE NUMBER	A3
GPM	13.4
STATIC PRESSURE AT CITY MAIN	120.00 psi
AVAILABLE OPERATING PRESSURE (90% OF STATIC PRESSURE)	108.00 psi
SERVICE LINE	
feet of 2" pipe (Type K copper)	0.00 psi
feet of 1-1/2" pipe (Type K copper)	0.00 psi
feet of 1-1/4" pipe (Type K copper)	0.00 psi
feet of 1" pipe (Type K copper)	0.00 psi
35 feet of 3/4" pipe (Type K copper)	(8.67) psi
POINT OF CONNECTION	
0.75" WATER METER	(2.60) psi
0.75" BACKFLOW PREVENTER	(11.50) psi
MAINLINE	
Looped mainline	
feet of 2" pipe (Cl. 315)	0.00 psi
feet of 1-1/2" pipe (Sch. 40)	0.00 psi
feet of 1-1/4" pipe (Sch. 40)	0.00 psi
394 feet of 1" pipe (Sch. 40)	(16.25) psi
FITTINGS (20% MAINLINE LOSS)	
1" REMOTE CONTROL VALVE	(2.10) psi
LATERAL LINE LOSSES (Class 200)	
feet of 2" pipe	0.00 psi
feet of 1-1/2" pipe	0.00 psi
5 feet of 1" pipe	(0.11) psi
28 feet of 1" pipe	(0.37) psi
88 feet of 3/4" pipe	(1.96) psi
ELEVATION CHANGE	
(Enter a negative # for elevation loss, positive # for elevation gain)	0.00 psi
SYSTEM LOSSES	(46.81) psi
SUMMARY:	
AVAILABLE OPERATING PRESSURE:	108.00 psi
SYSTEM LOSSES:	(46.81) psi
REMAINING PRESSURE:	61.19 psi
IRRIGATION HEAD OPERATING PRESSURE:	(35.00) psi
RESIDUAL PRESSURE AFTER LAST IRRIGATION HEAD:	26.19 psi
SET REGULATOR AT:	85.00 psi
ADJUSTED RESIDUAL PRESSURE:	3.19
NO PUMP NEEDED	



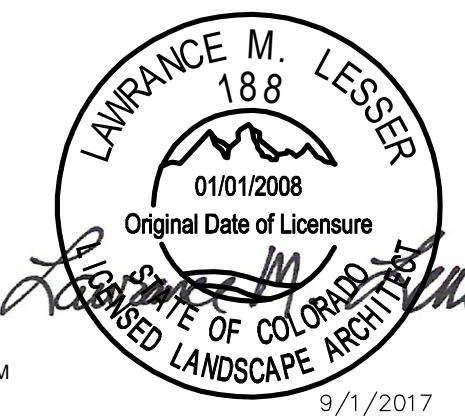
- 1 FINISH GRADE
2 POP-UP SPRAY HEAD
3 SCH. 80 PVC NIPPLE (LENGTH AS REQUIRED)
4 SCH. 40 PVC ELL
5 SCH. 40 PVC STREET ELL
6 SCH. 40 PVC TEE OR ELL
7 PVC LATERAL PIPE

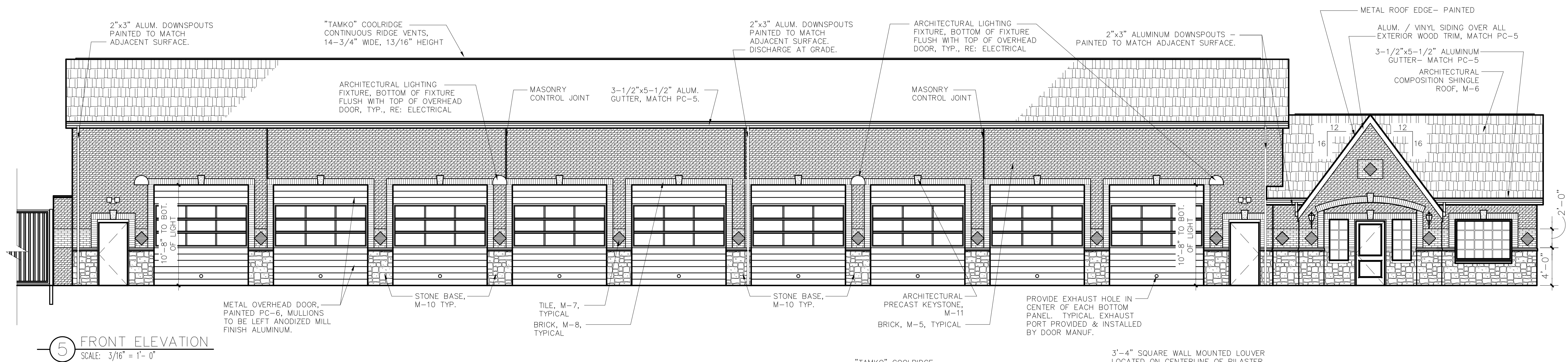
L POP-UP SPRAY HEAD
SCALE: NTS



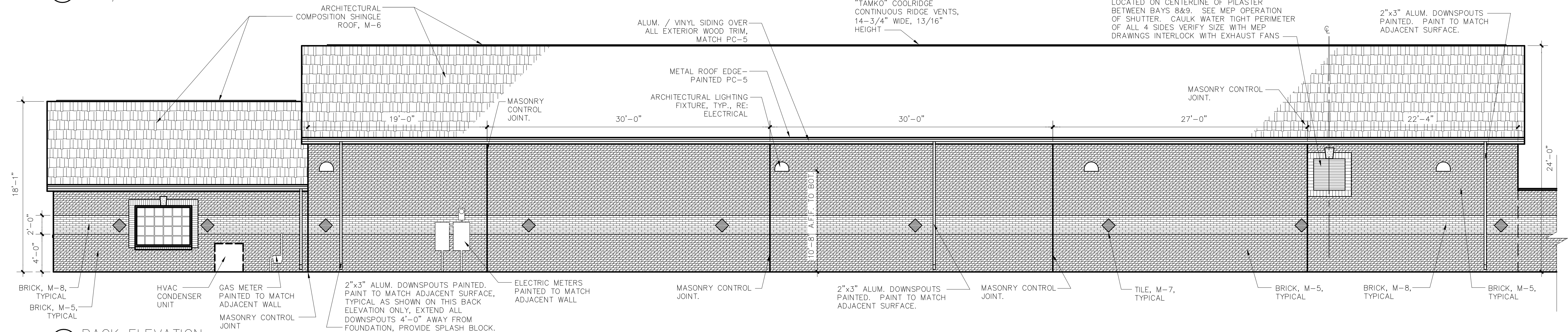
- 1 FLUSH VALVE
2 SCH. 40 PVC EXHAUST HEADER
3 SCH. 40 PVC TEE OR ELL
4 COMPRESSION ADAPTER
5 DRIP LINE
6 AIR RELIEF VALVE AT HIGH POINT OF SYSTEM (WHERE INDICATED ON PLANS)
7 SCH. 40 PVC SUPPLY HEADER
8 CONTROL VALVE
- NOTE: SET DRIP LINES 3'-6" AWAY FROM HARDSCAPE

I SUBSURFACE DRIP LINE LAYOUT
SCALE: NOT TO SCALE

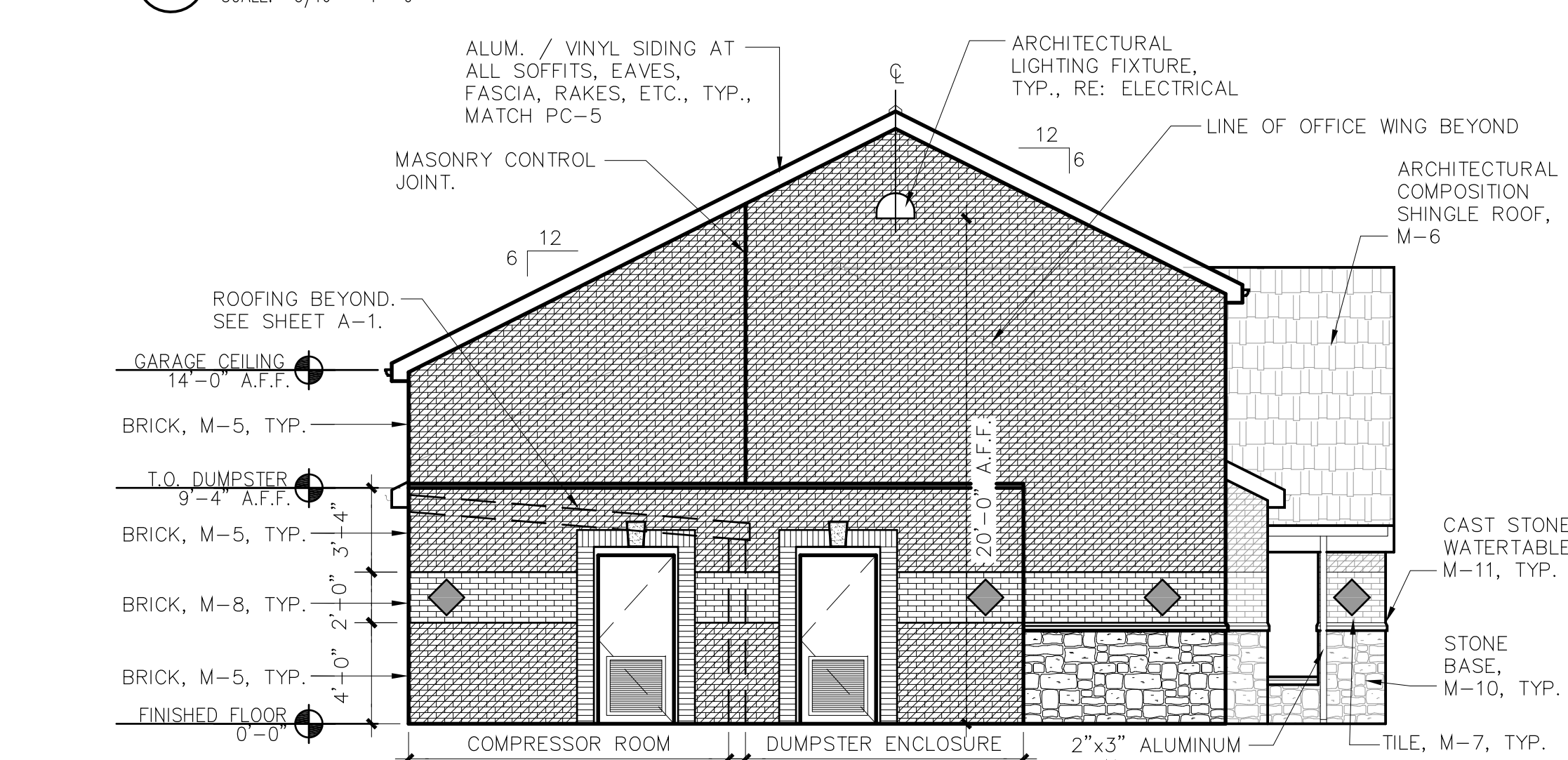




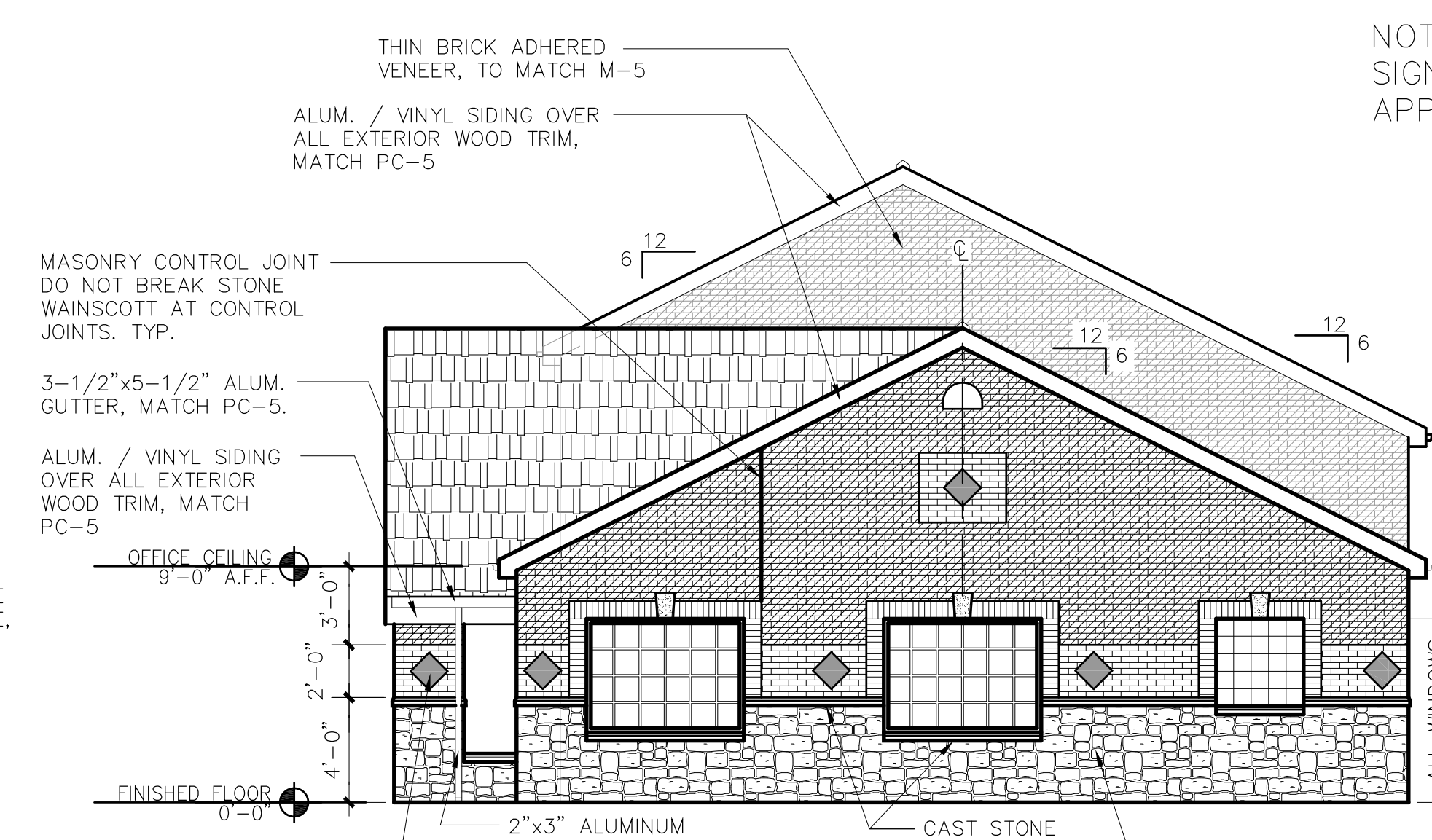
5 FRONT ELEVATION
SCALE: 3/16" = 1'-0"



4 BACK ELEVATION
SCALE: 3/16" = 1'-0"

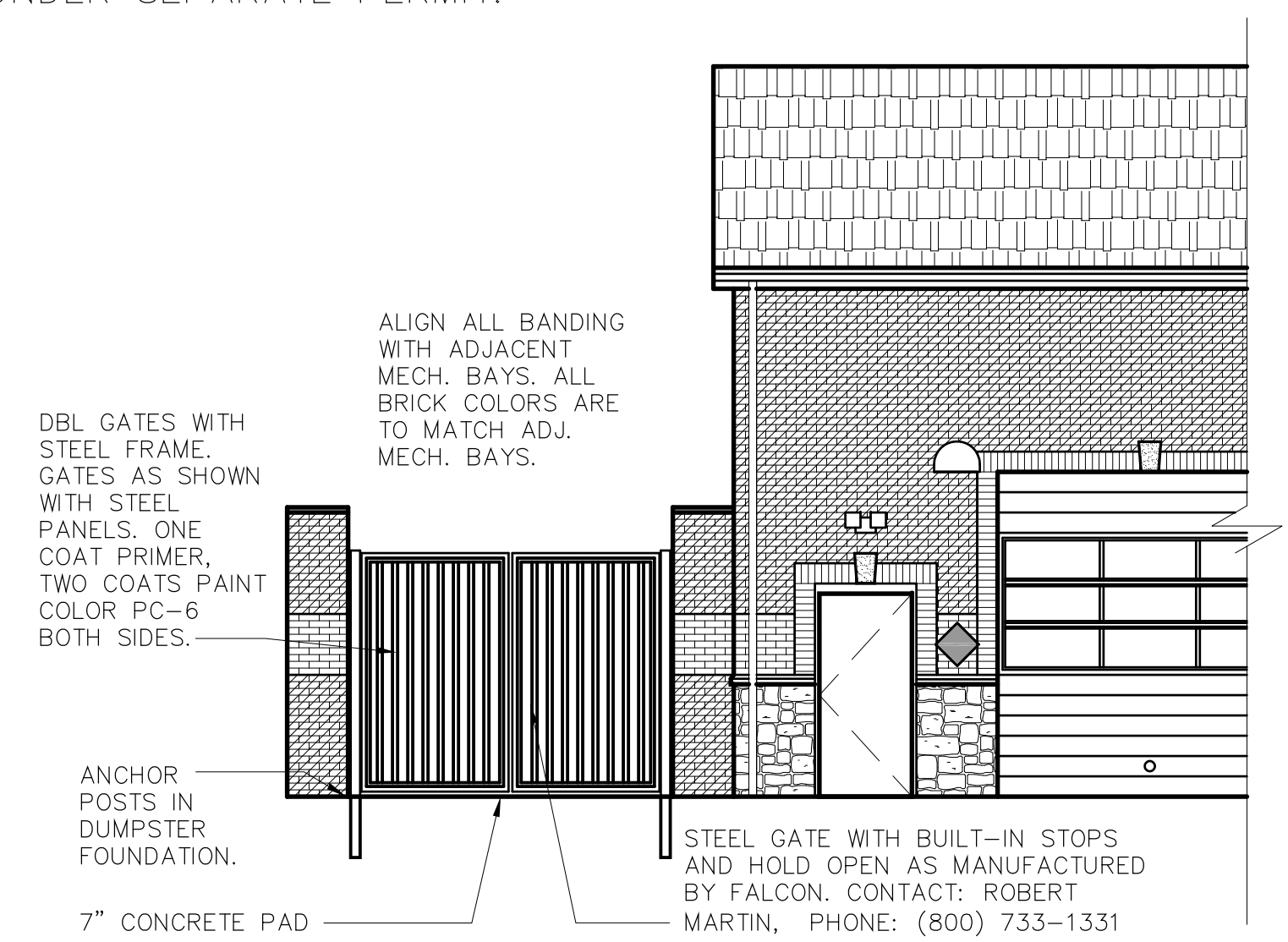


3 RIGHT SIDE ELEVATION
SCALE: 3/16" = 1'-0"



2 LEFT SIDE ELEVATION
SCALE: 3/16" = 1'-0"

NOTE:
SIGNAGE TO BE REVIEWED AND
APPROVED UNDER SEPARATE PERMIT.



1 DUMPSTER ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"

M-5	BRICK	GENERAL SHALE BRICK, 8" NOM. 2 1/4" MODULAR BRICK, COLOR: BRIARWOOD 6060, MORTAR COLOR 'BUFF'
M-6	COMPOSITION SHINGLE ROOF	CERTAINTED LANDMARK 30 AR, COLOR: "WEATHERED WOOD"
M-7	MARBLE TILE MEDALLION	DAL-TILE M725-12 EMPERADOR (POLISHED)
M-8	BRICK	ACME BRICK CO., 8" NOM. 2 1/4" MODULAR BRICK, COLOR: DESERT TAN, MORTAR COLOR 'BUFF'
M-10	STONE VENEER	THIN STONE VENEER, LYONS SANDSTONE, COLOR: PRAIRIE GOLD, 3-6-9 MIX, CUT FACE, MORTAR COLOR 'BUFF'
M-11	CAST STONE	PRE-CAST STONE WATERTABLE AND SILL, COLOR: BUFF, SEE A-5 FOR PROFILES

TYPICAL NOTES FOR ALL ELEVATIONS

- 2'-0" BAND, JAMBS, HEADS OF DOORS AND WINDOWS, AND ACCENT IN GABLES AT ENTRY AND SIDE ELEVATIONS TO BE BRICK COLOR M-8.
- ALL MASONRY SURFACES ARE TO BE SPRAYED WITH WATER-PROOFING SEALER, PROSOCO INC. BLOCK GUARD AND GRAFFITI CONTROL #40093 - PH: 800-255-4255
- ALL DOWNSPOUTS ARE TO BE PAINTED TO MATCH THE COLOR OF THE WALL MATERIAL BEHIND IT.
- ALL WOOD TRIM AT SOFFITS, EAVES, FASCIA, RAKES, ETC. TO BE ALUMINUM OR VINYL SIDING OVER EXPOSED WOOD.
- ALL EXTERIOR LIGHTS ARE TO BE ON PHOTO CELL. TYPICAL OF ALL ELEVATIONS.

Date

Revisions

5/4/17 - Issued for PDP Submittal
7/6/17 - Revised per PDP First Round Comments

Project No. 17-XX

Drawn By:

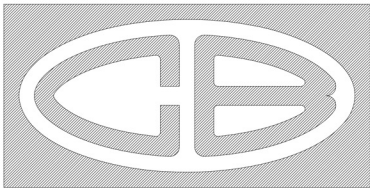
Date: 5/4/17

Sheet Title:

EXTERIOR ELEVATIONS

Drawing No.

A-4
9RHN-04-2017



Christian Brothers Automotive

M-5	BRICK	GENERAL SHALE BRICK, 8" NOM. 2 1/4" MODULAR BRICK, COLOR: BRIARWOOD 6060, MORTAR COLOR 'BUFF'
M-6	COMPOSITION SHINGLE ROOF	CERTAINTED LANDMARK 30 AR, COLOR: "WEATHERED WOOD"
M-7	MARBLE TILE MEDALLION	DAL-TILE M725-12 EMPERADOR (POLISHED)
M-8	BRICK	ACME BRICK CO., 8" NOM. 2 1/4" MODULAR BRICK, COLOR: DESERT TAN, MORTAR COLOR 'BUFF'
M-10	STONE VENEER	THIN STONE VENEER, LYONS SANDSTONE, COLOR: PRAIRIE GOLD, 3-6-9 MIX, CUT FACE, MORTAR COLOR 'BUFF'

MATERIAL IMAGE BOARD

CHRISTIAN BROTHERS AUTOMOTIVE
BLOCK ONE, UPLAND'S PROSPECT BUSINESS PARK P.U.D.
FORT COLLINS, CO



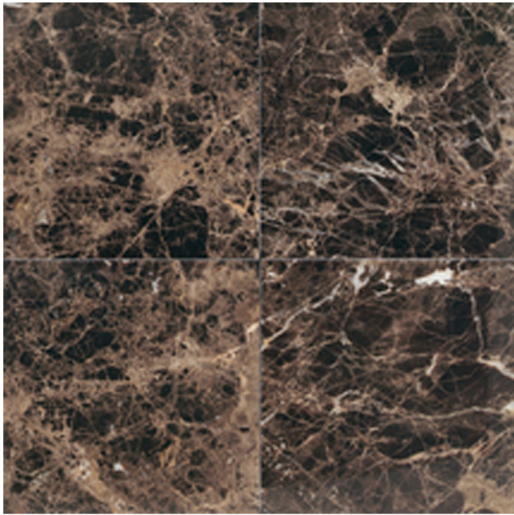
M-5
Acme Brick 'Desert Tan'



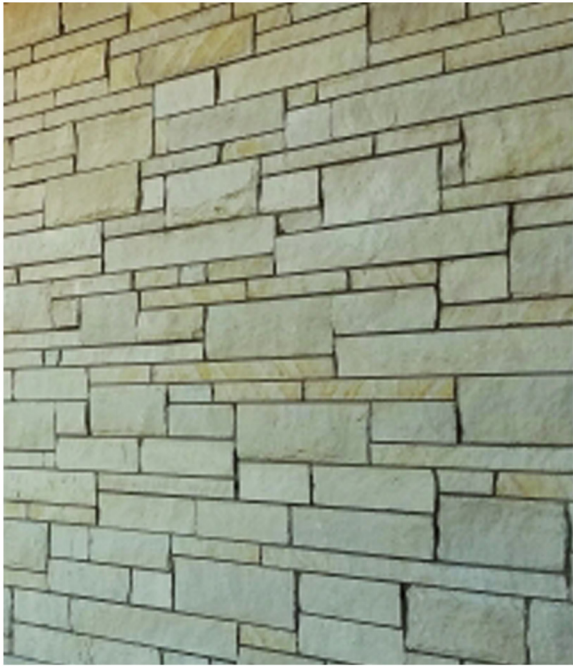
M-8
General Shale Brick 'Briarwood 6060'



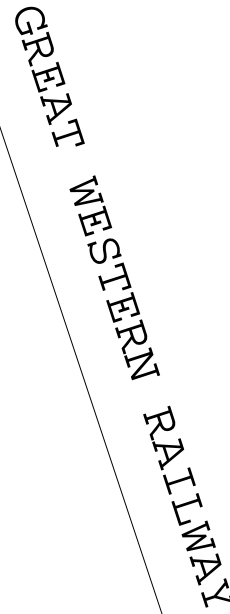
M-6
Certainted Shingle Roof



M-7
Marble Tile Medallion



M-10
Sandstone 'Prairie Gold'



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