LEGAL DESCRIPTION:

LOT 6 BLK 1 GARDEN RANCH ESTATES
COLO SPGS EX TR DESC BY BK
2003-111

SITE DATA:

ACREAGE:

443,005 SQ. FT. (10.17 ACRES)

NAME OF DRAINAGE BASIN:

TEMPLETON GAP DRAINAGE BASIN

ZONING:

Existing Zoning: ~~PUD/HS - Religious Institution~~ PDZ/CR HS-O
In the process of being amended to include Religious institution and child daycare center, large

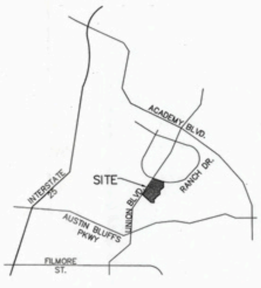
Conditions of Record:

1. Use shall be limited ~~to a Religious Institution (church) only, without accessory housing or a non-public parochial facilities (except for Sunday school, vacation bible school, and other similar educational classes).~~
In the process of being amended to include Religious institution and child daycare center, large

2. The Maximum building height shall not exceed 35' and the maximum total building size shall not exceed 23,000 square feet.

3. Any proposed change of use will require a change of zoning and amended development plan to review and approved by the City Planning Commission and City Council.

4. A conservation easement shall be placed upon the northern portion of this parcel to prohibit future development.



VICINITY MAP

SITE DEVELOPMENT DATA:

LAND USE: ~~RELIGIOUS INSTITUTION~~

Religious institution and child daycare center, large

LOT COVERAGE:	SQ.FT.	ACRES	%
TOTAL AREA:	443,005.20 SQ.FT.	10.17 AC.	100.00%
TOTAL PERVIOUS AREA: LANDSCAPE:	336,846.20 SQ.FT.	7.73 AC	76.03%
IMPERVIOUS AREA: BUILDING FOOTPRINT: (including trash enlcosure)	23,096.00 SQ.FT.	.53 AC.	5.2%
ASPHALT/CONC:	83,098.00 SQ.FT.	1.91 AC.	18.7%
TOTAL IMPERVIOUS :	106,194.00 SQ.FT.	2.44 AC.	23.97%

SCHEDULE FOR DEVELOPMENT (BUILDING AREA BY PHASE)

PHASE	GROSS SQ. FT	EXPECTED COMPLETION DATE
Phase I:	13,418 Sq. Ft.	Spring 2005
Phase II:	4174 Sq. Ft.	Spring 2009
Phase III:	3088 Sq. Ft.	Spring 2014
Phase IV:	1872 Sq. Ft.	Spring 2019
Phase V:	448 Sq. Ft.	Spring 2024
Total:	23,000 Sq. Ft.	
Minor modification to add preschool use	810 sqft (indoor) 4750 soft (outdoor)	Summer 2025

BUILDING HEIGHT:

Maximum Building Height Allowed: 35'

PARKING SPACE RATIO:

RELIGIOUS INSTITUTION:	REQUIRED SPACES ~~(1/4 of Sanctuary Seating)~~ 1 space/6 assembly seats	PROVIDED
Proposed Sanctuary Seating: 310 seats	~~78~~ 52	114/5 H.C.
Proposed preschool size 25 children	3	20

FLOOD ZONE INFORMATION:

FEMA map number 08041C0519F does not show this site within the projected 100 year floodplain.

GENERAL NOTES:

1. Landscape improvements will be the responsibility of the owner and/or his/her assigns.
2. The landscape plan included within this plan set is a Final Landscape Development Plan
3. All parking lots, landscape islands and vehicular circulation drives will be surrounded or bounded by 6" vertical concrete curb.
4. All sidewalk surfaces will be broom finished concrete.
5. All substandard curb & gutter, pedestrian ramps, and sidewalk adjacent to the site will need to be removed and replaced per current City of Colorado Springs standards.
6. Easements will be provided for cross access, utilities, and drainage.
7. Significant natural features are located within this property. Refer to the Land Suitability Analysis Map, located within the City Development Plan file CPC DP 02-053.
8. Wildfire Risk Management:
A. Residing in or near wildland interface or intermix areas involves increased fire risks that may not apply in urban or more urbanized types of developed communities (See Land Suitability Map – document part of this Development Plan submittal CPC DP 02-053).
B. The proposed property development, is subject to fuels mangement requirements. It is the responsibility of the builder to implement the fules management procedures as defined in Section 105 in Part 1 of Article 4 of Chapter 20 of the City Code. Approval inspection must be obtained from the City Zoning Administration office prior to Final Inspection by the Building Department and/or allowing occupancy of the facility. The initial fuels management inspection must be requested from the City Zoning Administration office prior to framing inspection with subsequent approval obtianed prior to building final. (See Land Suitability Map – document part of this Development Plan submittal CPC DP 02-053).
9. Geologic Hazard Disclosure Statement:
This property is subject to the findings summary and conclusions of a Geologic Hazard Report prepared by Donald A. Coates, Ph.D., CG dated August 23, 1999. A copy of said report has been placed within file AR DP AR-DP-02-053 of the City of Colorado Springs. Contact City of Colorado Springs Development Review and Zoning, 30 South Nevada Avenue, Colorado Springs, CO 80903 if you would like to review the said report.
10. Preservation / No Build Area
Is identified as that portion of this development plan and clearly identified and shown. This area is set aside as a restriction for the purpose of retaining the land in their natural, scenic and open state. Further it shall be unlawful for any person to construct any structure; remove any live vegetation, soils or materials; perform any dumping, filling or grading; or otherwise disturb within the area, except for the selective removal of vegetation required by the City to comply with Wildfire Fuels Management provisions of the City Code and for the construction and installation of buffer berms, landscaping, and trails.

ARCHITECTURE/BUILDING NOTES:

the area below the structure shall have all under floor areas

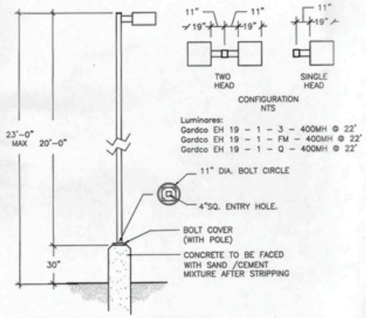
1. Gutters and downspouts shall be constructed from non-combustible material.
2. Appendages and projections: Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be a minimum of one-rated fire resistive construction, heavy timber construction or constructed of approved non-combustible material. When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10
enclosed to within 6 inches of the ground, with exterior wall of non-combustible or one hour fire-resistive construction.
3. Chimneys serving fireplaces, barbecues, incinerators, or decorative heating appliances in which solid or liquid fuel is used shall be provided with a spark arrester. Spark arresters shall be constructed of woven or welded wire screening of 12 USA standard gauge wire having openings not exceeding 1/2 inch.
4. Firewood and combustible material shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies, or other projections or overhangs. Storage of firewood and combustible material stored in the defensible space shall be located a minimum of 20 feet from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet.
5. A Class A roof covering shall be installed on all roofing and re-roofing applications.
6. Exterior walls, siding, soffits and eaves shall be of non-combusitble or a minimum 1 hour rated fire resistive construction. Heavy timber or log wall construction exempted.
7. Buildings or structures shall have all under floors areas enclosed to the ground with exterior walls.
8. Exterior doors, shall be non-combustible or solid core not less than 1-3/4 inches thick. Windows within doors and glazed doors shall be tempered safety glass or mult-layered glass panels.
9. Attic vents shall be screened with wire mesh with openings no larger than 1/8 inch. Soffits vents should not be permitted.
10. Exterior windows, window walls and skylights shall be tempered safety glass or multi-layered glazed panels.
11. Trash dumpster will be enclosed inside a 6' tall gated block wall enclosure as shown on the plans (see Architectural Elevation sheet #3).

LIGHTING NOTES:

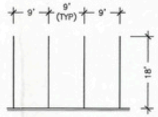
1. Lights on the building shall not exceed 10' in height from the finished grade elevation adjacent to the building.
2. The height of the pole parking lot lights shall be limited to a maximum pole height of 23' including the base.
3. All wall and parking lot light poles shall be a dark color and non-reflective, including the base.
4. All fixtures shall be shoe-box type with full cutoff features and be limited to metal halide (white) type.
5. All lighting shall be arranged to reflect away from adjoining properties and public right-of-ways, and shall be shielded to contain all direct rays of light on site.
6. Light levels from the project shall not exceed 1.0 foot-candle, as measured along the perimeter property lines.
7. Minimum lighting, except those used for the protection of the property, shall be used after 10:00 PM.
8. Interior lighting of the buildings will be controlled in order to minimize adverse negative impacts to the surrounding area.

AMENDMENT HISTORY

CITY FILE NUMBER	CHANGES TO PLANS	APPROVAL DATE
CPC DP 02-0253:	Beth-El Mennonite Church Development Plan	(2002)
AR NV 09-00036:	nonuse variance for additional wall signage	(2009)
PDZD-25-0020:	minor modification to add preschool use	(Summer 2025)

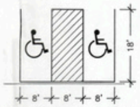


PARKING LOT LIGHT DETAIL



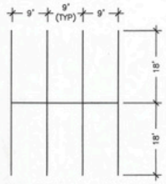
Typical Parking Space Size 9'x18'

PARKING DETAIL WHEN ADJACENT TO CURB



Typical Parking Space Size 8'x18'

HANDICAP PARKING DETAIL



Typical Parking Space Size 9'x18'

OPEN PARKING DETAIL

SHEET INDEX

CONSULTANTS:

Architect:	Dale A. Dougherty, Architect 29 E. Bijou, Suite 18 Colorado Springs, CO	ph: (719) 635-8109
Engineer:	Berge-Brewer & Associates 28 E. Willamette Ave. Colorado Springs, CO 80903	ph. (719) 227-7181
Landscape Architects:	Land Patterns, Inc. 411 S. Cascade Ave., #200 Colorado Springs, CO 80903	ph. (719) 578-8689
Surveyor:	Berge Brewer 28 E. Willamette Ave. Colorado Springs, CO 80903	ph. (719) 227-7181
Traffic Engineer:	LSC Transportation Consultants, Inc. 101 N. Tejon St. #200 Colorado Springs, CO 80903	ph. (719) 633-2868
Soils Engineer:	RMG Engineers 2910 Austin Bluffs Pkwy. Colorado Springs, CO 80918	ph. (719) 548-0600
Geologic Hazard Study:	Donald A. Coates Ph.D. CG 1712 Lorraine St. C-2 Colorado Springs, CO 80906	ph. (719) 338-8285
Wildfire Hazard Assessment:	Mountain High Tree Servic, Inc. 906 Canopus Dr. Colorado Springs, CO 80906	ph. (719) 444-8800

OWNER:

Beth-El Mennonite Church

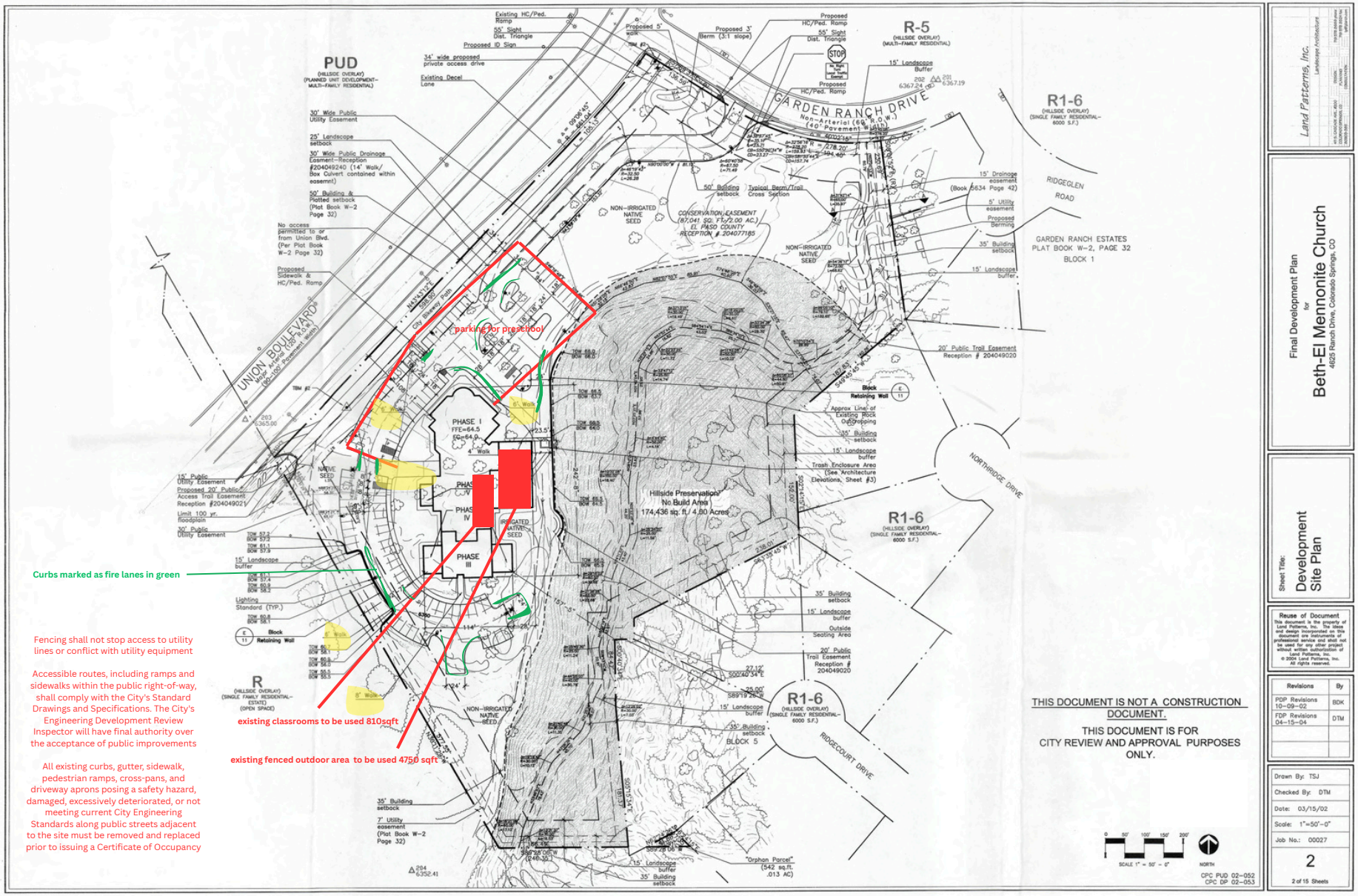
1219 Yuma Street Colorado Springs, CO 80909 Telephone: 719-636-2716

UPDATED 5-9-25

~~FDP PREPARATION: 04-15-04~~
~~CPC PUD 02-052~~
~~CPC DP 02-053~~

1 OF 15 SHEETS

PDZD-25-0020



Land Patterns, Inc.
Landscape Architecture

Final Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

Sheet Title:
Development Site Plan

Revisions	By
PDP Revisions 10–09–02	BDK
FDP Revisions 04–15–04	DTM

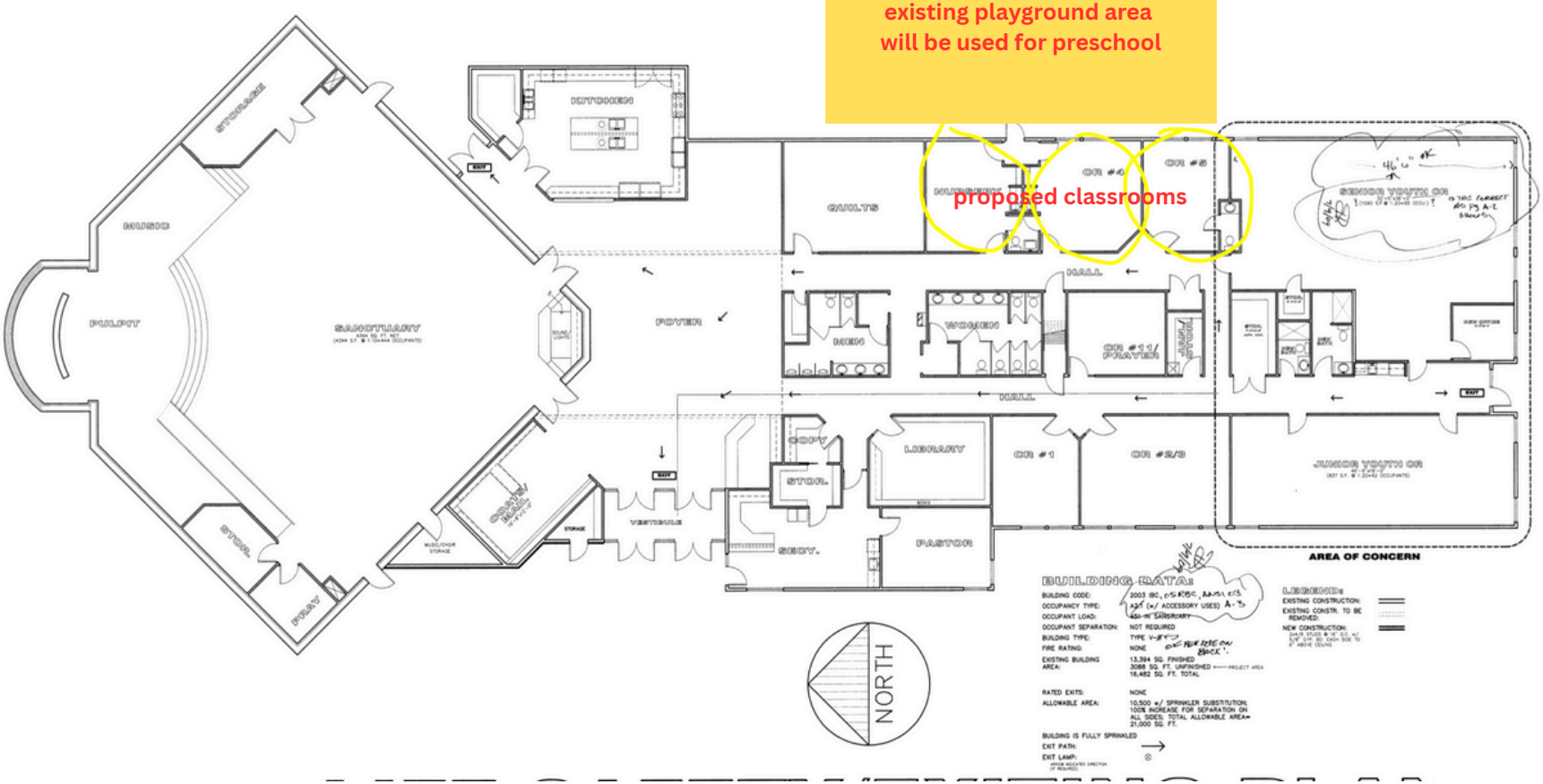
Drawn By: TSJ
Checked By: DTM
Date: 03/15/02
Scale: 1"=50'–0"
Job No.: 00027

2
2 of 15 Sheets

PDZD-25-0020

existing playground area
will be used for preschool

proposed classrooms



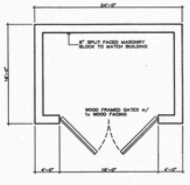
DALE DAUGHERTY
ARCHITECTURE AND PLANNING
COMMERCIAL AND RESIDENTIAL
29 EAST BIJOU SUITE 18
COLORADO SPRINGS, CO 80903
(719)-635-0109

BETH-EL MENNONITE CHURCH
4625 RANCH DRIVE COLORADO SPRINGS

JOB NO.
FILE NO.: YOUTH\LS1
DATE: 6/9/2009
DRWN. BY: DD
REVISIONS

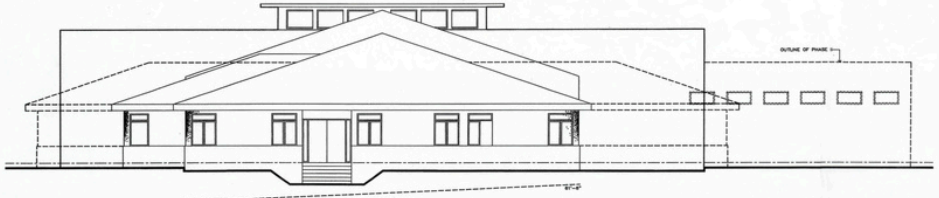
SHEET
LS1

ELEVATIONS

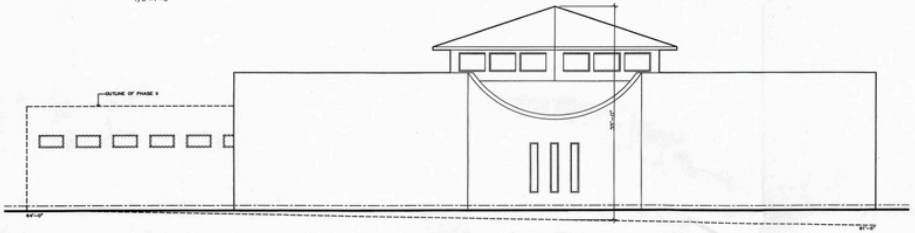


PLAN

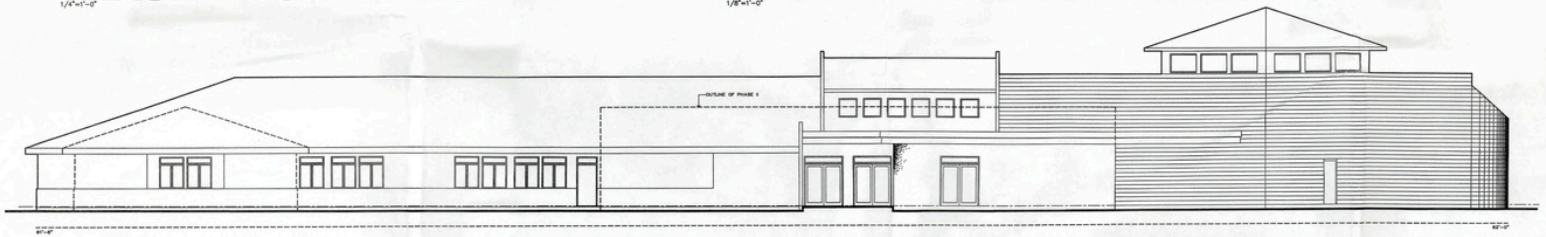
TRASH ENCLOSURE
1/4"=1'-0"



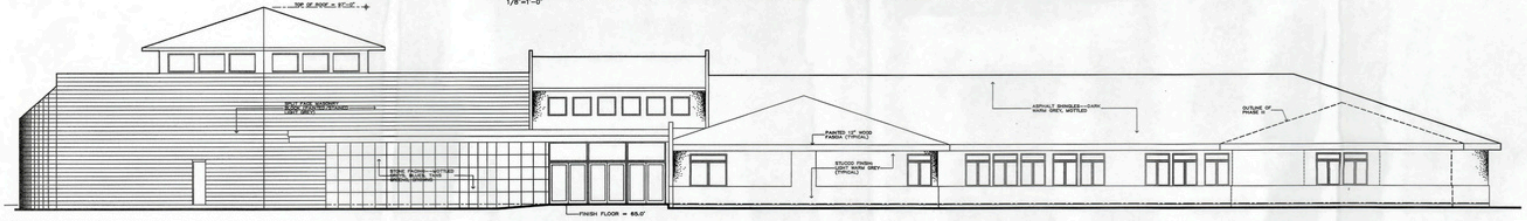
RIGHT SIDE ELEVATION
1/8"=1'-0"



LEFT SIDE ELEVATION
1/8"=1'-0"



REAR ELEVATION
1/8"=1'-0"



FRONT ELEVATION
1/8"=1'-0"

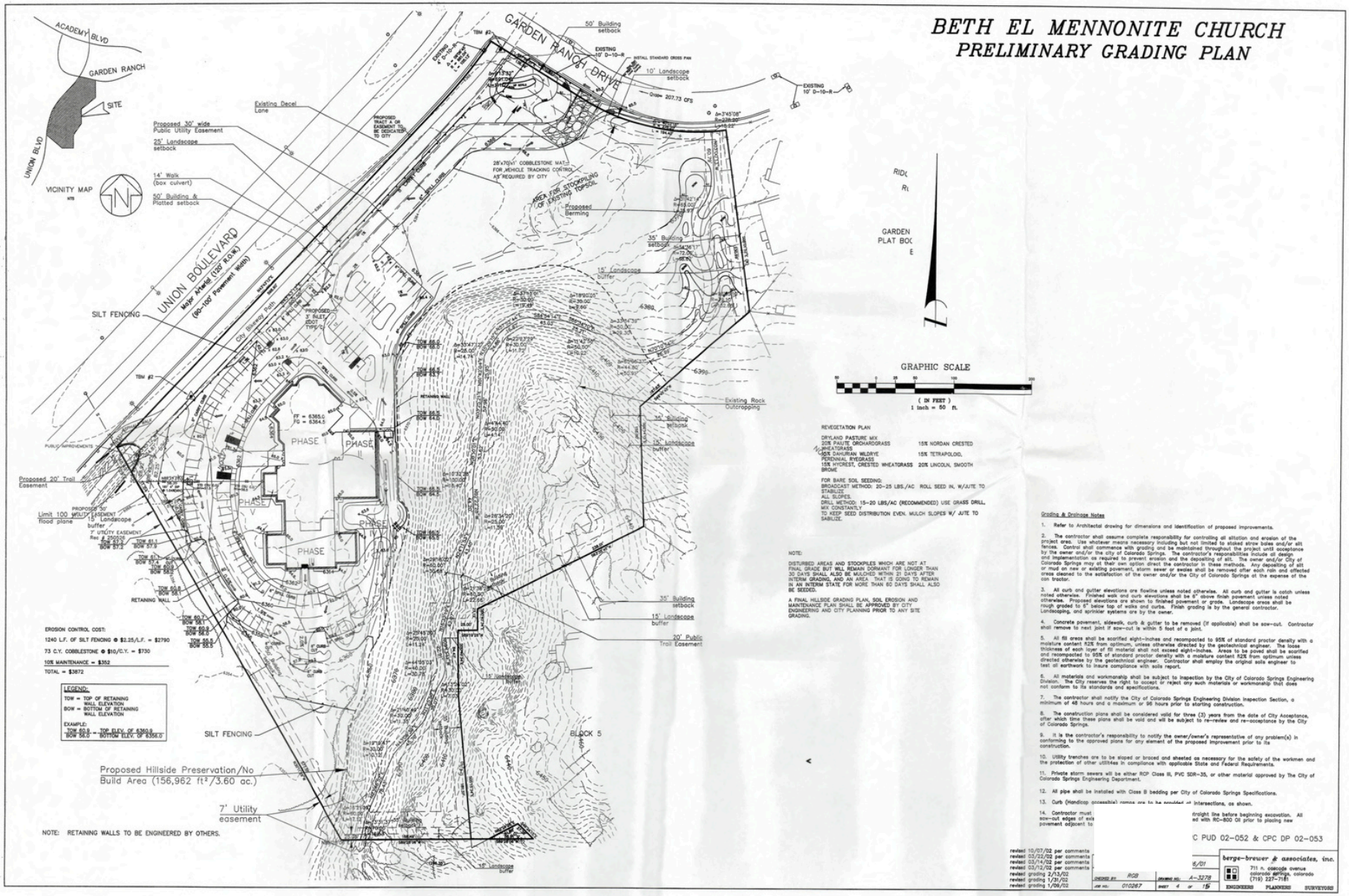
DALE DAUGHERTY
ARCHITECTURE AND PLANNING
COMMERCIAL AND RESIDENTIAL
2138 E. BIJOU ST. STE. 15
COLORADO SPRINGS, CO 80909
(719)-635-8109

BETH-EL MENNONITE CHURCH
UNION AND RANCH

JOB NO.
FILE NO.: BL\B2
DATE: 4/14/2004
DRWN. BY: DD
REVISIONS

SHEET
3
OF

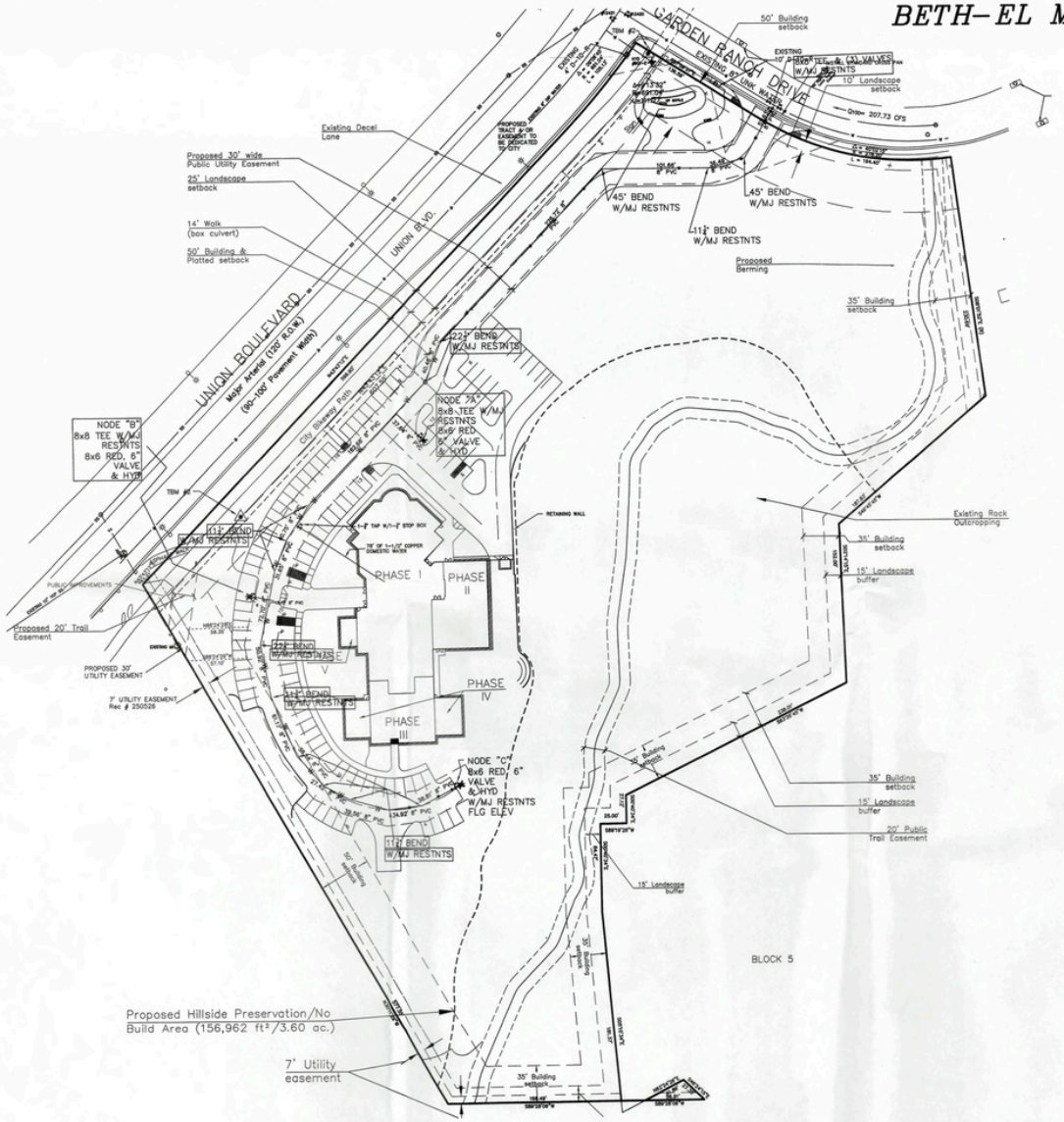
BETH EL MENNONITE CHURCH
PRELIMINARY GRADING PLAN



PDZD-25-0020

BETH–EL MENNONITE CHURCH – MASTER FACILITIES

LOT 6, BLOCK 1, GARDEN FLOWERS SUBDIVISION – RIDGECREST ADDITION



GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.

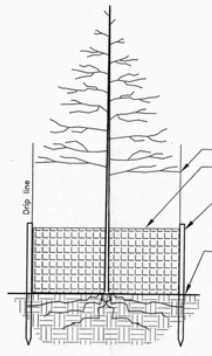
REVISED: 5/14/04 UTILITY EASEMENT(2)
REVISED: 4/23/04 MANHOLE LOCATIONS
REVISED: 10/07/02 PER COMMENTS
REVISED: 03/22/02 PER COMMENTS
REVISED: 03/14/02 PER COMMENTS
REVISED: 03/12/02 PER COMMENTS
REVISED: 01/14/02

CPC PUD 02–052 & CPC DP 02–053

DRAWN BY:	GK	DATE:	9–25–01
CHECKED BY:	RGB	DRAWING NO.:	A–3278
JOB NO.:	010267	SHEET	5 OF 15

berge–brewer & associates, inc.
711 north cascade ave.
colorado springs, colorado
(719) 227–7181
ENGINEERS PLANNERS SURVEYORS

PDZD-25-0020



NOTES:

1. Drawing/Plan is diagrammatic. Set fence to the outside edge of drip line of each plant indicated. Where not applicable, set fence as far away from tree trunk as possible, but outside of construction limits.

A/6 TREE PROTECTION

NOT TO SCALE

NOTES:

1. Viability of trees to be saved dependant on City Forester's recommendations.

TREES TO BE REMOVED

TREES TO BE SAVED

EXISTING TREE INVENTORY*

TREE ABRV.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	REMOVE/ REMAIN
elan	1	Eleagnus angustifolia	Russian Olive	1.0" dbh	To be Removed
posa	1	Populus sargentii	Plains Cottonwood	16.0" dbh	To Be Removed
posa	1	Populus sargentii	Plains Cottonwood	8.0" dbh	To Remain
posa	1	Populus sargentii	Plains Cottonwood	9.0" dbh	To Remain
posa	2	Populus sargentii	Plains Cottonwood	10.0" dbh	To Remain
posa	2	Populus sargentii	Plains Cottonwood	11.0" dbh	To Remain
posa	3	Populus sargentii	Plains Cottonwood	12.0" dbh	To Remain
posa	2	Populus sargentii	Plains Cottonwood	14.0" dbh	To Remain
posa	1	Populus sargentii	Plains Cottonwood	18.0" dbh	To Remain
posa	1	Populus sargentii	Plains Cottonwood	19.0" dbh	To Remain
posa	1	Populus sargentii	Plains Cottonwood	4.5" dbh	To be Removed
posa	1	Populus sargentii	Plains Cottonwood	7.0" dbh	To be Removed
posa	1	Populus sargentii	Plains Cottonwood	10.0" dbh	To be Removed
posa	1	Populus sargentii	Plains Cottonwood	14.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	1.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	2.5" dbh	To be Removed
ulsp	2	Ulmus spp.	Elm	5.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	5.25" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	5.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	6.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	6.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	7.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	7.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	8.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	9.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	10.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	16.0" dbh	To be Removed

* Existing Tree Inventory represents only those trees with potential for disturbance in the immediate area of construction. All other trees, outside of the construction limits, are not included in the Existing Tree Inventory and are to remain, with the exception of those identified in the Wildfire Mitigation Report.

THIS DOCUMENT IS NOT A CONSTRUCTION DOCUMENT.

THIS DOCUMENT IS FOR CITY REVIEW AND APPROVAL PURPOSES ONLY.

SCALE 1" = 50' - 0"

NORTH

CPC PUD 02-052
CPC DP 02-053

Land Patterns, Inc.
Landscape Architecture

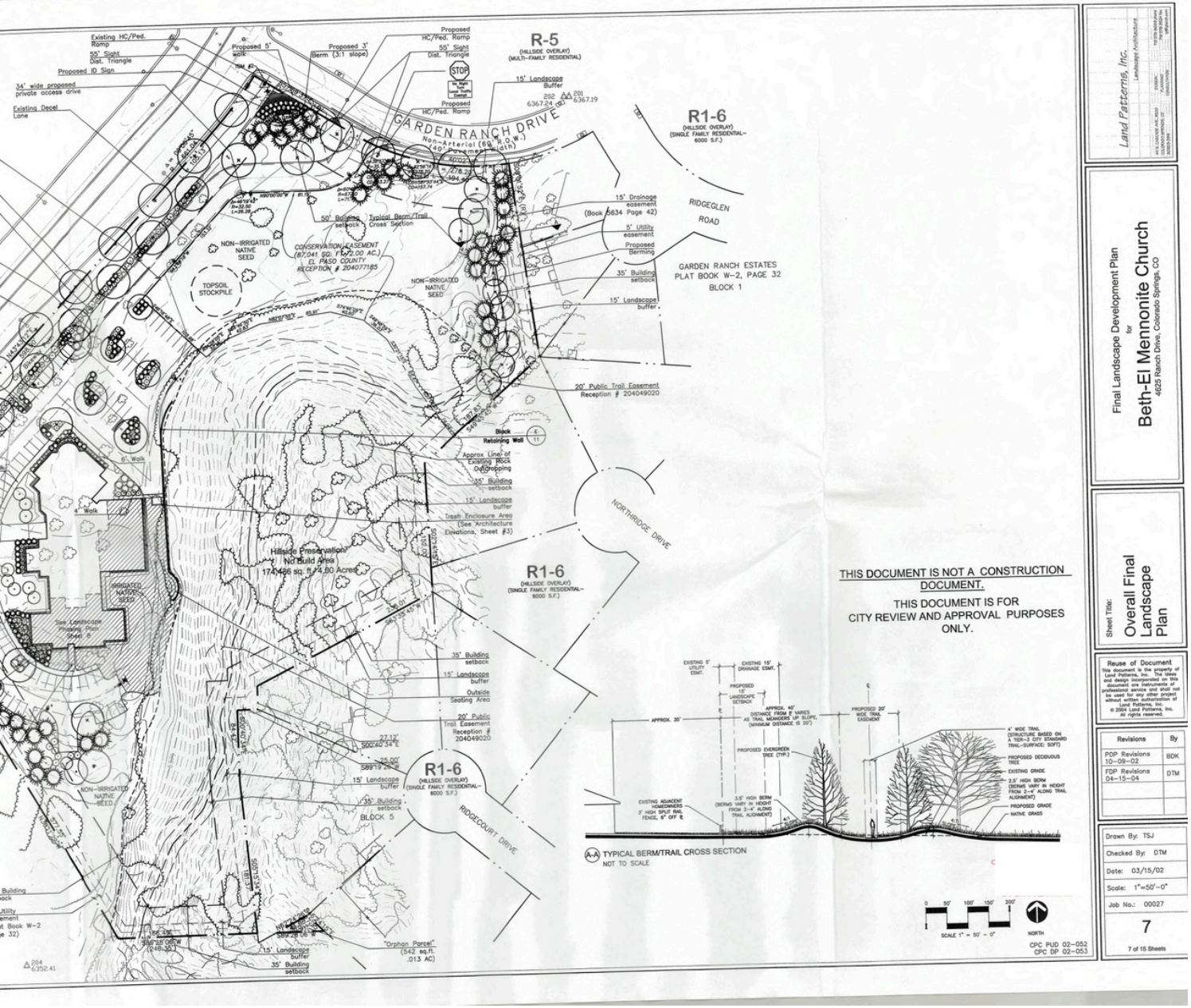
Final Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

Sheet Title:
Existing Tree Inventory and Protection Plan

Revisions	By
PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: TSJ
Checked By: DTM
Date: 03/15/02
Scale: 1"=50'-0"
Job No.: 00027

6
6 of 15 Sheets



Land Patterns, Inc.
Landscape Architecture

Final Landscape Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

Sheet Title:
Overall Final Landscape Plan

Revisions	By
PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: TSJ
Checked By: DTM
Date: 03/15/02
Scale: 1"=50'-0"
Job No.: 00027

7
7 of 15 Sheets

Apppendix E

SCHEMATIC LANDSCAPE DIAGRAM

Submittesd in conformance with Policy 311

NAME OF PROJECT:
BETH-EL MENNONITE CHURCH
DATE:
NOVERMBER 19, 2001
REVISED:
OCTOBER 10, 2002 FDP - December XX, 2003

CLIMATE ZONE
(from Figure 4 of Landscape Policy Manual) - circle one:

FOOTHILLS (FOOTHILLS & PLAINS) PLAINS

PLANT COMMUNITIES
(to be labeled by number(s) on diagram:)

1 -- Semi-arid Shrublands
2 -- Pinon-Juniper Woodlands
3 -- Prairie
4 -- Lower Elevation Reparian
5 -- Foothil Shrublands
6 -- Ponderosa Pine Forest
7 -- Upper Elevation Riparian
8 -- Douglas-Fir Forest

HYDROZONES
(supplemental water - to be labeled by letter(s) on diagram:)

V- Very Low (0 to 7 inches per year)
L - Low (7 to 15 inches per year)
M - Moderate (15 to 25 inches per year)
H - High (more than 25 inches per year)

Appendix F

SITE CATEGORY CALCULATIONS

Submitted in conformance with Policy 312.

LANDSCAPE SETBACKS (or Double Frontage Lot Streetscape)

(See Code Section/Policy 320 & 317)

STREET NAME ZONED BOUNDARY (ELEV.)	STREET CLASSIFICATION	WIDTH (FT.) REQUIRED	WIDTH (FT.) PROVIDED	LINEAR FOOTAGE	TREE / FEET REQUIRED	NUMBER OF TREES REQUIRED	NUMBER OF TREES PROVIDED
UNION BLVD.	MAJOR ARTERIAL	25'	25'	705'	1/20'	36	28

SHRUB SUBSTITUTES REQUIRED	SHRUB SUBSTITUTES PROVIDED	ORNAMENTAL GRASSES REQUIRED	ORNAMENTAL GRASSES PROVIDED	SETBACK PLANT ABBR. DENOTED ON PLAN	PERCENT GROUND PLANE VEG. REQUIRED	PERCENT GROUND PLANE PROVIDED	PERCENT BLUEGRASS TOT. S.F.	PERCENT BLUEGRASS % OF SETBACK
80	80	0	0	(US)	75%	100%		

MOTOR VEHICLE LOTS

See Code Section/Policy 321 & 317

NUMBER OF PARKING SPACES PROVIDED	SHADE TREES (1/10 SPACES) REQUIRED	SHADE TREES (1/10 SPACES) PROVIDED	VEHICLE LOT FRONTAGE(S)	LENGTH OF FRONTAGE (FT.) (EXCLUDING DRIVEWAYS)	2/3 LENGTH OF FRONTAGE (FT.)
114	8	8			
			UNION BLVD.	225'	150

MIN 3' SCREENING PLANTS REQUIRED	MIN 3' SCREENING PLANTS PROVIDED	EVERGREEN PLANTS REQUIRED (50%)	EVERGREEN PLANTS PROVIDED	LENGTH OF SCREENING WALL OR BERM PROVIDED	VEHICLE LOT PLANT ABBR. ON PLAN	PERCENT GROUND PLANE VEG. REQUIRED	PERCENT GROUND PLANE PROVIDED
					(P)		
24	28	12	14		(UV)		

INTERNAL LANDSCAPING

(See Code Section/Policy 322 & 317)

NET SITE AREA (LESS PUBLIC R.O.W.)	PERCENT MINIMUM INTERNAL AREA (%)	INTERNAL AREA (S.F.) REQUIRED	INTERNAL AREA (S.F.) PROVIDED	INTERNAL TREES (1/300 S.F.) REQUIRED	INTERNAL TREES (1/300 S.F.) PROVIDED
268,542 S.F. (SEE NOTE #1 BELOW)	5%	13,428 S.F.	336,846 S.F.	27	13

SHRUB SUBSTITUTES REQUIRED	SHRUB SUBSTITUTES PROVIDED	ORNAMENTAL GRASSES REQUIRED	ORNAMENTAL GRASSES PROVIDED	INTERNAL PLANT ABBR. DENOTED ON PLAN	PERCENT GROUND PLANE VEG. REQUIRED	PERCENT GROUND PLANE PROVIDED	PERCENT BLUEGRASS TOT. S.F.	PERCENT BLUEGRASS % OF SITE
140	158	0	8	(I)	75%	100%		

LANDSCAPE BUFFERS & SCREENS

See Code Section/Policy 323 & 317

STREET NAME OR PROPERTY LINE (ELEV.)	WIDTH (FT.) REQUIRED	WIDTH (FT.) PROVIDED	LINEAR FOOTAGE	BUFFER TREES (1/20') REQUIRED	EVERGREEN TREES REQUIRED (50%)	EVERGREEN TREES PROVIDED	
EAST PROP. LINE			(SEE NOTE #2 BELOW)				
OUTSIDE HILLSIDE OVERLAY	15'	15'	287'	15	21	8	12
INSIDE HILLSIDE OVERLAY	15'	15'	757'	(SEE NOTE #3 BELOW)			
SOUTH PROP. LINE	15'	15'	558'	28	30	14	17
GARDEN RANCH DR.	15'	15'	331'	17	17	9	10

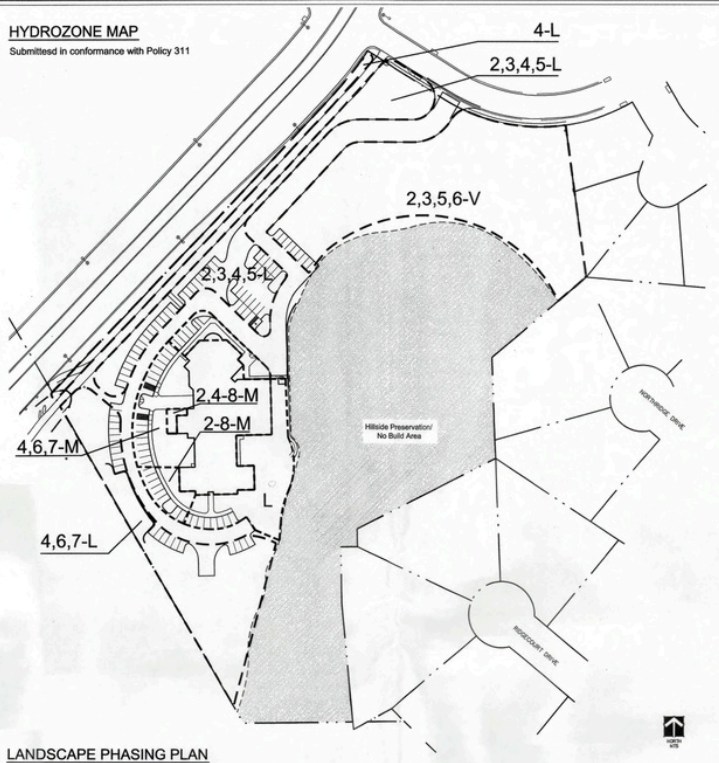
LENGTH OF 6' OPAQUE STRUCTURE REQUIRED	LENGTH OF 6' OPAQUE STRUCTURE PROVIDED	SCREENING SHRUBS REQUIRED	SCREENING SHRUBS PROVIDED	SCREEN SHRUBS ABBR. DENOTED ON PLAN	PERCENT GROUND PLANE VEG. REQUIRED	PERCENT GROUND PLANE PROVIDED
287'	SEE NOTE #4 BELOW			(EB)	75%	100%
757'				(SEE NOTE #3 BELOW)		
558'	SEE NOTE #4 BELOW			(SB)	75%	100%
331'	SEE NOTE #4 BELOW			(RB)	75%	100%

NOTES:

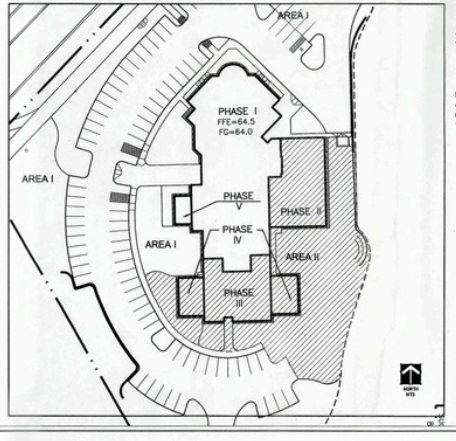
1. Site catagory calculations are based on a net square footage of 268,542. This area equals total square footage of the property (443,005 sq. ft.) minus the area designated as Hillside Preservation/No Build Area (176,463 sq. ft.).
2. East property line length identified as total length from Garden Ranch Drive to the intersecting Hillside Preservation/No Build Area boundary.
3. Existing conditions of the hillside and natural vegetation meet the buffer requirements for the East property line within the hillside preservation/no build area.
4. See Request for Administrative Relief.

HYDROZONE MAP

Submittesd in conformance with Policy 311



LANDSCAPE PHASING PLAN



AREA I:

Area I (includes all areas outside of Area II) to be installed at the completion of Phase I-Building.

AREA II:

Landscape within Area II (shaded area) to be installed at the completion of Phase V-Building. All of Area II will be seeded (see planting notes for seed mixture) at the completion of the Phase I Building.

Appendix G

LANDSCAPE PLANT SCHEDULE

Submitted in conformance with Policy 312.

LANDSCAPE PLANT SCHEDULE

Abbr.	Qty.	Botanical Name	Common Name	App. B Key	Mature Width	Planting Size	Notes
TREES							
acrure	5	Acer rubrum 'Red Sunset'	Red Sunset Maple	S	30-40'	1.5" cal.	
cesc	4	Celtis occidentalis	Western Hackberry	345TDA	40'-50'	1.5" cal.	
crcrlv	5	Crataegus crus-galli 'Inermis'	Thornless Cockspur Hawthorn	235AD	15-20'	2.0" cal.	
frpesu	16	Fraxinus pennsylvanica 'Summit'	Summit Ash	245TAD	30-40'	1.5" cal.	
juvc	6	Juniperus scopulorum 'Cologreen'	Cologreen Juniper	125678D	5'	#15	
mosp	9	Malus 'Spring Snow'	Spring Snow Crabapple	467S	15'-20'	1.0" cal.	
pini	21	Pinus nigra	Austrian Pine	25678A	20'-30'	6' ht.	
pini	14	Pinus nigra	Austrian Pine	25678A	20'-30'	8' ht.	
pipo	8	Pinus ponderosa	Ponderosa Pine	2678D	20'-30'	6' ht.	
pipo	4	Pinus ponderosa	Ponderosa Pine	2678D	20'-30'	8' ht.	
posa	9	Populus sargentii	Plains Cottonwood	47AD	50'	1.5" cal.	
pycach	3	Pyrus calleryana 'Chanticleer'	Chanticleer Pear	S	15'	1.0" cal.	
quma	10	Quercus macrocarpa	Bur Oak	4DA	40-50'	1.5" cal.	
Percent Signature Trees: (60% minimum - Policy 311.3k)			Signature Trees : 106 Total No. of Trees: 114 = 93% Signature Trees				
SHRUBS							
amal	23	Amelanchier alnifolia	Saskatoon Serviceberry	257DA	6'-12'	#5	
budana	4	Buddleja davidii nanhoana 'Petite Indigo'	Compact Lavender Butterfly Bush	45A	4'-5'	#5	
budowh	6	Buddleja davidii 'White Bouquet'	White Butterfly Bush	45A	4'-5'	#5	
coho	20	Cotoneaster horizontalis	Ground Cotoneaster	2345S	3'-6'	#5	
colu	31	Cotoneaster lucidus	Hedge Cotoneaster	2345D	6'-9'	#5	
costla	25	Cornus stolonifera 'Isanti'	Isanti Redtwig Dogwood	457S	4'-6'	#5	
juchho	7	Juniperus chinensis 'Hobert'	Hobert Juniper	DA	8'-10'	#5	
juhuhu	24	Juniperus horizontalis 'Hughes'	Hughes Juniper	2568A	5'-8'	#5	
juhopr	27	Juniperus horizontalis 'Prince of Wales'	Prince of Wales Juniper	2568A	4'-6'	#5	
juhoyo	5	Juniperus horizontalis 'Youngstown'	Andorra Youngstown Juniper	2568A	4'-6'	#5	
juscar	18	Juniperus sabina 'Arcadia'	Arcadia Juniper	568A	4'-6'	#5	
jusabu	46	Juniperus sabina 'Buffalo'	Buffalo Juniper	568A	6'-8'	#5	
juscca	8	Juniperus sabina 'Calgary Carpet'	Calgary Carpet Juniper	568A	6'-8'	#5	
jusola	12	Juniperus sabina 'Tamariscifolia'	Tammy Juniper	568A	6'-8'	#5	
prcl	28	Prunus cistena	Purple Leaf Plum	1245678AD	4'-6'	#5	
rice	12	Ribes cereum	Wax Currant	2456DA	3'-4'	#5	
rude	15	Rubus deliciosus	Boulder Raspberry	14567BAD	3'-6'	#5	
Percent Signature Shrubs: (60% minimum - Policy 311.3k)			Signature Shrubs : 303 Total No. of Shrubs: 307 =98.4% Signature Shrubs				
GRASSES							
ange	18	Andropogon gerardi	Big Blue Stem	123SD	3'-4'	#1	
sora	8	Sacchaum rovennae	Plume Grass		3'-4'	#1	
Percent Signature Grasses: (60% minimum - Policy 311.3k)			Signature Grasses : 18 Total No. of Grasses: 26 = 69% Signature Shrubs				
PER							
coin	71	Callirhoe involucrata	Poppy Mallow	123D	2-3'	4" pots	
sufaco	48	Sedum/rhodiola fortunei 'Coloratum'	Purpleleaf Wintercreeper	N/A	4-6'	#1	

THIS DOCUMENT IS NOT A CONSTRUCTION DOCUMENT.

THIS DOCUMENT IS FOR CITY REVIEW AND APPROVAL PURPOSES ONLY.

CPC PUD 02-052
CPC DP 02-053

Land Patterns, Inc.
Landscape Architecture

Final Landscape Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

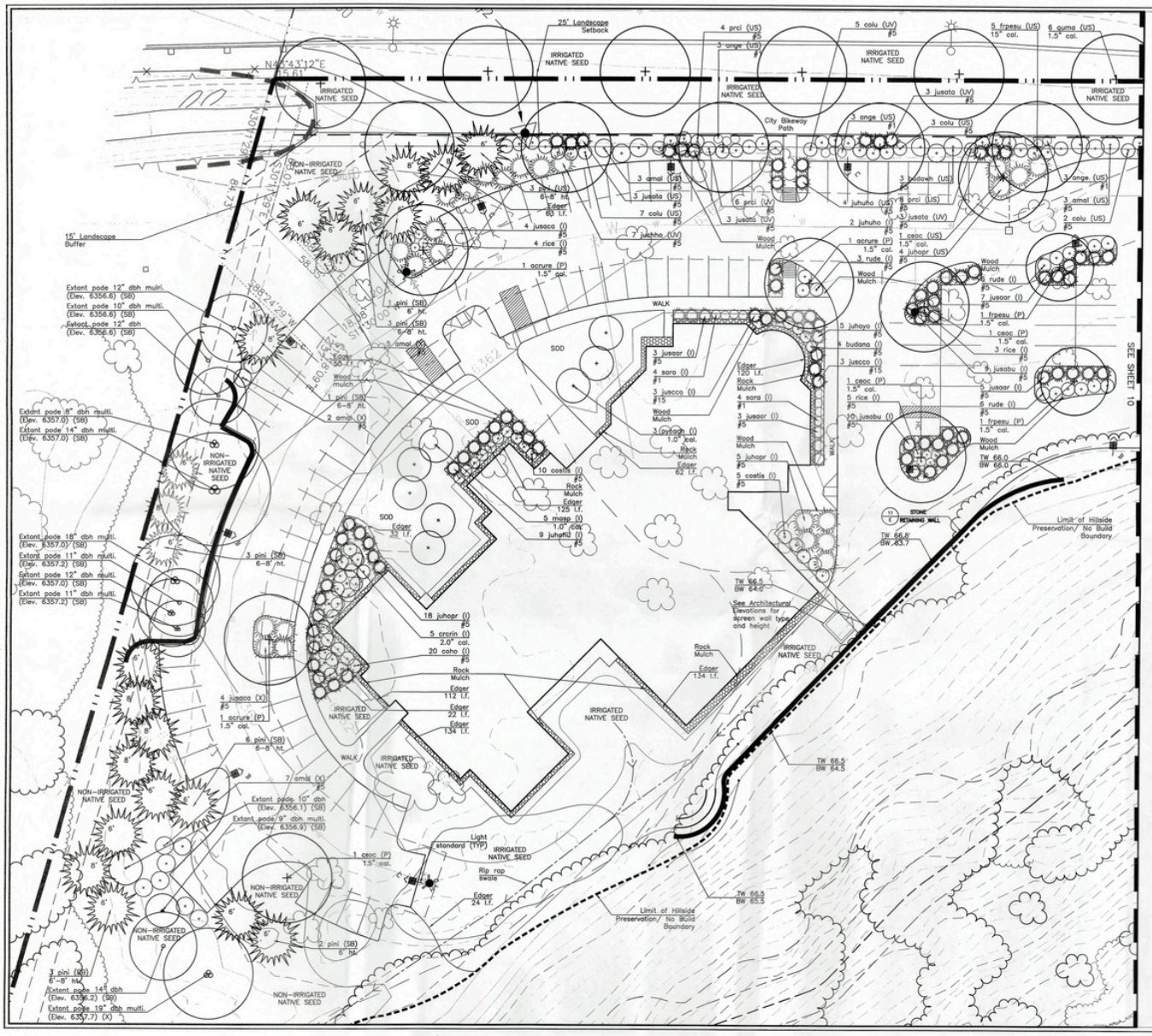
Sheet Title:
Hydrozone Map & Plant Scedule

Revisions	By
PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: TSJ
Checked By: DTM
Date: 03/15/02
Scale: 1"=50'-0"
Job No.: 00027

8
8 of 15 Sheets

PDZD-25-0020



THIS DOCUMENT IS NOT A CONSTRUCTION DOCUMENT.

THIS DOCUMENT IS FOR CITY REVIEW AND APPROVAL PURPOSES ONLY.

SCALE 1" = 20' - 0"

NORTH

CPC PUD 02-052
CPC DP 02-053

Land Patterns, Inc.
Landscape Architecture

Final Landscape Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

Sheet Title:
Final Landscape Plan

Revisions	By
PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: TSJ
Checked By: DTM
Date: 03/15/02
Scale: 1"=50'-0"
Job No.: 00027

9
9 of 15 Sheets

Land Patterns, Inc.
Landscape Architecture

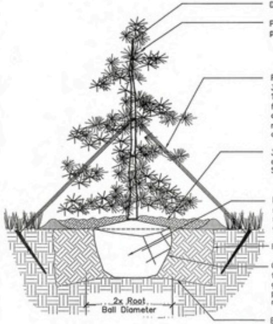
Final Landscape Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

Sheet Title: Final Landscape Plan

Revisions	By
PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: TSJ
Checked By: DTM
Date: 03/15/02
Scale: 1"=50'-0"
Job No.: 00027

10
10 of 15 Sheets

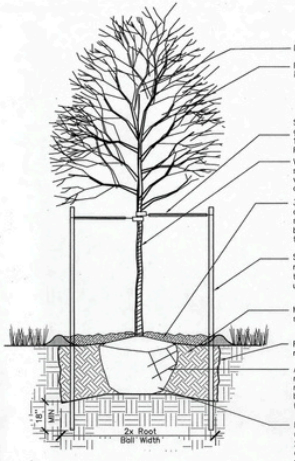


NOTES:

1. Do not fertilize for at least one growing season.
2. Keep plants moist and shaded until planted.

A / 11 — EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE



Notes:

1. Prune dead, broken or crossed branches and branches with weak or narrow crotches. Do not remove lower limbs and sprouts for at least two growing seasons.
2. Do not fertilize for at least one growing season.
3. Keep plants moist and shaded until planted.

B / 11 — DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

NOTES:

GENERAL PLANTING NOTES AND SPECIFICATIONS

1. Exact locations, elevations and configurations of utilities, structures, existing plants and natural features are the responsibility of the user and shall be field verified prior to any work, including material orders. Caution shall be exercised during all field work: surveying, locators, hand digging, pilot holes and/or other appropriate methods may be required for subsurface work. Contact local utilities locating services at least 2 business days (not including the day of the actual notice) prior to excavation work. Utility Notification Center of Colorado 12600 W. Colfax Ave., Suite B-310, Lakewood, CO 80215 (800)-922-1987
2. Soil Analysis: Soils to be amended as per the soils report:
   - -Organic Material: Add 3 cubic yards of Premium Compost III per 1,000 sq. ft.
   - -Nitrogen: Add 1 lb (N) per 1,000 sq. ft. for sod, 3 lbs. (N) per 1,000 sq. ft. for trees and shrubs
   - -Phosphorus: Add 4 lbs (P_2O_5) per 1,000 sq. ft.
   - -Potassium: Add 2 lbs (K_2O) per 1,000 sq. ft.
   - -Lime: Add 75-100 lbs lime per 1,000 sq. ft.
3. Irrigation: All trees and shrubs in planting beds shall be drip irrigated, sod and trees within sodded areas are to be irrigated by pop-up and/or spray heads. Native seed area to be irrigated by pop-up or spray head.
4. Plant list: Codes for the species (scientific name), size, and quantity required to complete the planting, are listed and indicated by symbol in the drawings. In the event discrepancies occur between information indicated in the schedule and information indicated by symbol on the drawings, the information indicated by symbol on the drawings shall govern.
5. Form: All plants shall conform to the ANSI Z60.1. and Colorado Nursery Act. Provide plant material well formed, true to species or variety, free from injuries and disfigurement, unless otherwise approved by the Landscape Architect. Trees shall be fully branched in proportion to width and height. Trees, both deciduous and evergreen, shall have relatively straight trunks and one central leader (trees shall not be "poled"), unless otherwise approved by the Landscape Architect. Shrubs shall be provided that have the height and number of primary stems as recommended by ANSI Z60.1. An acceptable plant shall be well shaped with sufficient well-spaced side branches recognized by the ANLA (American Nurserymen and Landscaper Association) as typical for the variety grown in the region.
6. Health: Provide healthy plant material. Plant material shall be free from disease, defects such as disfiguring knots, sunscald, windburn or bark abrasions, infestations or injury and have a vigorous root system. Root balls shall be free of weeds. If necessary, spray plant material at time of installation and periodically as required to exclude infestation until final acceptance.
7. Size: The minimum acceptable sizes of plants measured before pruning with branches in normal position, shall conform to measurements as specified in the plant list furnished. Height and spread dimensions refer to main body of plant and not from branch or root tip to tip. Measure trees and shrubs with branches in normal position. Measure trunk caliper 6" above ground up to and including 4" caliper size and 12" above ground for larger sizes. The sizes identified are minimum sizes; plant material smaller than specified is unacceptable. Plants larger than specified may be used, if approved, at no additional cost.
8. Pruning: All plants shall not have been pruned after selection by the Landscape Architect or Contractor at either the supplier's nursery or the Contractor's work site, except as otherwise provided herein, (See Specs).
9. Identification: All plant materials shall be identified by means of a grower's label affixed to the plant. The grower's label shall give the data necessary to indicate conformance to specifications. Use durable waterproof labels with water-resistant ink which will remain legible for at least 60 days.
10. Substitutions: No substitutions accepted, except with the written permission of the Landscape Architect or owners authorized representative.
11. Inspection and approval: The Landscape Architect reserves the right to reject at any time or place prior to final acceptance of any and all materials and plants which, in his/her opinion, fail to meet specifications. Inspections of new plants are primarily for quality, size and variety, but other requirements are not waived even though visual inspection results in approval. Plants may be inspected where growing, but inspection at the place of growth shall not preclude the right of rejection at the site. Rejected plants and other materials shall be promptly removed from the site and replaced with suitable specimens.
12. Mulch: Unless otherwise noted, all planting areas for trees, shrubs, perennials, ornamentals gasses, and ground cover shall be mulched with three inches (3") of shredded wood bark mulch, (see specs for acceptable type),and watered in after installation.
13. Landscape Architect shall be notified at least two weeks prior to client seeking occupancy permit for affidavit inspection.
14. Notification for irrigation system inspection while trench is open shall be given 2 weeks in advance of requested inspection date.
15. EDGER: All edger shall be 14 gauge 4"x10" steel edger. Color shall be GREEN.
16. SOD: All areas designated as SOD shall meet the following conditions: A Colorado grown mix having a healthy, vigorous root system that has been regularly watered, mowed, fertilized and sprayed for weeds in the sod nursery with the follwing mixture of grasses:
    - 16% Scotts Abbey
    - 16% Scotts Ascot
    - 16% Scotts Coventry
    - 17% Roberts Limousine
    - 17% Merit Kentucky Bluegrass
    - 18% Roberts Quantum Leap
17. IRRIGATED NATIVE SEED: All areas designated as IRRIGATED NATIVE SEED shall be Arkansas Valley Nature's Choice Mixture or approved equal and shall contain the following mixture of grasses:
    - 70% Ephraim Crested Wheatgrass
    - 15% Hard Fescue
    - 10% Perennial Ryegrass
    - 5% Kentucky Bluegrass
18. NON-IRRIGATED NATIVE SEED: All areas designated as NON-IRRIGATED NATIVE SEED shall be Arkansas Valley Low Grow Mix or approved equal and shall contain the following mixture of grasses:
    - 30% Ephraim Crested Wheatgrass
    - 25% Dwarf Perennial Ryegrass
    - 20% SR3200 Blue Fescue
    - 15% Reubens Canada Bluegrass
    - 10% Chewings Fescue
19. All seed to be sown at 30 lbs live pure seed per acre.

CITY OF COLORADO SPRINGS REQUIREMENTS
INSTALLATION, VERIFICATION, AND DEFERRAL

Code Section 309. (Paraphrased)

Installation
All landscaping, irrigation system and other site work shown on the approved landscape and irrigation plans shall be properly installed and stabilized against soil erosion and/or financially assured, prior to issuance of a Certificate of Occupancy or prior to issuance of a building permit in the case of a double frontage lot streetscape requirement or common area (Section 305. B.2&3 of this Part), or prior to final development plan approval for the conversion of vacant land to nonresidential use that does not involve the construction of a structure.

Required Verification
The owner or developer shall provide an inspection affidavit executed by both the qualified landscape plan designer and the qualified irrigation plan designer, which certifies that all components have been properly installed in conformance with the approved plans. In lieu of the provision of a properly executed inspection affidavit, City Planning shall inspect and verify the initial landscape and irrigation system installation subject to compliance with Section 310.B of this Part.

Deferral of Installation
In cases where all or some portion of the required landscaping, irrigation system or other site work can not be installed due to seasonal conditions that would jeopardize the health of plant materials or prohibit the installation of the irrigation system or plant materials; or due to the unavailability of plant material, or to construction activities, the owner or developer may make the following arrangements in order to secure a Certificate of Occupancy.
1. An acceptable financial assurance shall be posted with the Development Review Manager. Acceptable financial assurances shall include cash, certificates of deposit, irrevocable letters of credit, performance bonds and escrow accounts. Said assurance shall be accompanied by a description of the uncompleted landscaping, irrigation system and/or site work and an estimate of the cost required to complete the same. The assurance shall be an amount equal to the cost estimate.
2. The owner or developer shall agree in writing that he or she, or any successors or assigns, shall complete the required landscaping, irrigation system, and/or site work within one year or less from the date of issuance of the Certificate of Occupancy.
3. The financial assurance shall be released once all of the required landscaping, irrigation system, and/or site work has been installed, and verified in compliance with Section 309.C of this Part.

Policy 309.
1. Where seeding is permitted, it shall be financially assured and the assurance shall not be totally released until the seeding is considered to be established in a healthy state by City Planning.
2. A functional test of the irrigation system shall be performed by the installer and verified by the qualified designer, or be verified by City Planning in conformance with Section 3-3-31 0.B of the Landscape Code.
3. Financial assurances shall contain the basic provisions of the acceptable forms for financial assurances available from City Planning.
4. Installation Standards:
   A. In motor vehicle lot planting areas compacted by site grading, soil shall be structurally renovated (tilled), or removed and replaced, to a depth of thirty inches (30").
   B. All plants shall meet or exceed standards established by the Colorado Nursery Act, and the "American Standard of Nursery Stock". All plant shall be typical of their species, healthy, free of disease, insect pests and mechanical injuries, have adequate root systems, and otherwise be consistent with the intent of the Landscape Code and Landscape Policy Manual.
   C. Installation shall be in accordance with the Planting Details as specified on the details sheet with regard to planting hole depth, size and shape, root ball preparation, construction of water basins, appropriate staking and guying, mulching and watering.
   D. Seeded landscape areas shall have no bare areas larger than six inches by six inches (6" x 6") after germination.

MAINTENANCE ASSURANCE

Code Section 310. (Paraphrased)

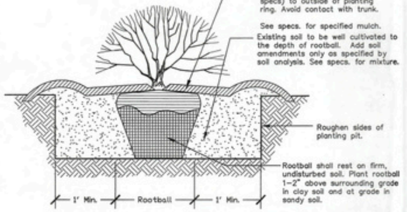
Compliance Inspection
City Planning shall perform a landscape compliance inspection two (2) years after the initial landscape installation is verified in conformance with Section 309.C of this Part.

Alternative to Inspection Affidavit
When a properly executed inspection affidavit is not provided as required by Section 309.C of this Part, the owner or developer shall post an acceptable financial assurance with the Development Review Manager for a two (2) year period that guarantees the maintenance in good condition of all required landscaping components, except irrigation system components, and the replacement or repair of said components. City Planning will then inspect and verify the initial landscape and irrigation system installation.

Type and Amount of Assurance
Acceptable financial assurances shall include cash, certificates of deposit, irrevocable letters of credit, performance bonds and escrow accounts. The amount of the assurance shall be established in the Landscape Policy Manual. Said assurance shall be reduced in conformance with the procedures established in the Landscape Policy Manual.

Policy 310.
1. The amount of the financial assurance for maintenance shall be ten percent (10%) of the cost of the required landscape installation. No financial assurance shall be required for the irrigation system.
2. The amount of the financial assurance for maintenance may be reduced by the cost of verified, required plant replacements, on a one-time basis, during the two-year assurance period.

Release of Assurance
The financial assurance shall be released once City Planning verifies that all of the required landscaping has been maintained in compliance with the requirements and standards of this Landscape Code and the Landscape Policy Manual for a period of two (2) years from the date of verification of the initial landscape installation.

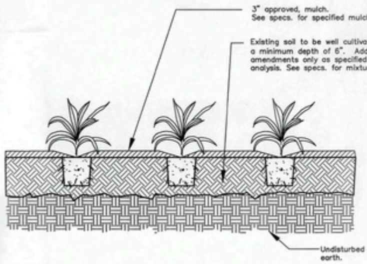


NOTES:

1. Corrective pruning (dead or damaged wood) to be immediately completed prior to planting.
2. On slopes plant rootball at grade and provide saucer rim on down hill side. Water in at planting.
3. For pot bound container only: make 4-5 vertical cuts in rootball 1/2" deep. Plant immediately.
4. For rootbind at the bottom of ball: split rootball vertically all the way through bottom to halfway to top. Spread the two halves over a mound of soil in the planting hole.
5. For burlapped plants: Remove all burlap if possible without breaking the rootball or remove a minimum of 2/3 of the burlap from the top portion. Remove all green treated burlap.
6. Do not fertilize for at least one growing season.
7. Keep plants moist and shaded until planted.

C / 11 — SHRUB PLANTING DETAIL

NOT TO SCALE

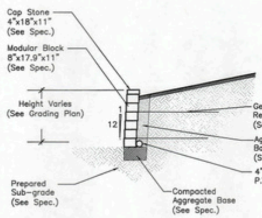


NOTES:

1. Keep plants moist and shaded until planting.
2. Plant ground covers and perennials level and at grade.
3. Refer to soil analysis report and specifications soils mix.

D / 11 — PERENNIAL PLANTING DETAIL

NOT TO SCALE



E / 11 — BLOCK RETAINING WALL DETAIL

NOT TO SCALE

THIS DOCUMENT IS NOT A CONS
DOCUMENT.

THIS DOCUMENT IS FO
CITY REVIEW AND APPROVAL PURPOSES ONLY.

CPC PUD 02-052
CPC DP 02-053

Land Patterns, Inc.
Landscape Architecture

Final Landscape Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

Sheet Title:
Landscape Details

Revisions	By
PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: TSJ

Checked By: DTM

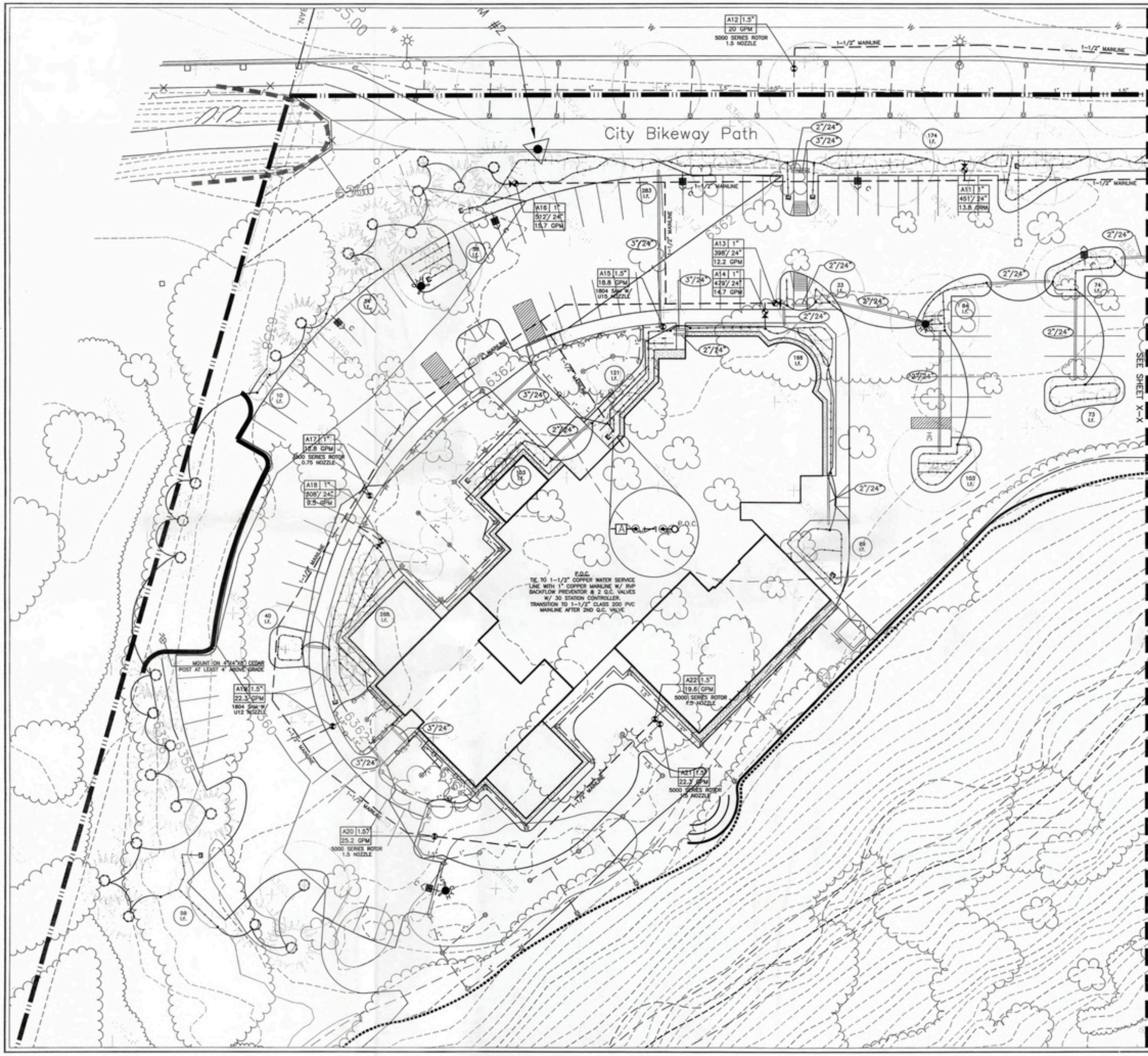
Date: 03/15/02

Scale: 1"=50'-0"

Job No.: 00027

11

PDZD-25-0020



HEAD LEGEND

SYM	MFG	MODEL	NOZZLE	PSI	GPM	RADIUS
	RAINBIRD	1804 SAM PRS	MPR 5Q	30	0.10	5' RAD.
	RAINBIRD	1804 SAM PRS	MPR 5H	30	0.20	5' RAD.
	RAINBIRD	1804 SAM PRS	U12/U15 (F)	30	2.60/3.70	12-15' RAD.
	RAINBIRD	1804 SAM PRS	U12/U15 (H)	30	1.30/1.85	12-15' RAD.
	RAINBIRD	1804 SAM PRS	U12/U15 (Q)	30	0.65/0.92	12-15' RAD.
	RAINBIRD	1804 SAM PRS	U12/U15 (T)	30	0.87/1.23	12-15' RAD.
	RAINBIRD	3500 SERIES	0.75 (F)	55	1.70	18' RAD.
	RAINBIRD	3500 SERIES	0.75 (H,Q)	55	0.43-0.85	18' RAD.
	RAINBIRD	5000 SERIES	1.5 (F)	65	3.72	29-34' RAD.
	RAINBIRD	5000 SERIES	1.5 (H,Q)	65	1.86	29-34' RAD.
	RAINBIRD	IN-LINE DRIP TUBE	LD-09-24	30	0.9 GPH/2'	DRIP
	RAINBIRD	4" DIA. TREERING	LD-09-24	30	0.9 GPH/2'	DRIP

EQUIPMENT LEGEND

SYM	MFG	MODEL	SIZE	DESCRIPTION
				POINT OF CONNECTION
	FEBCO	825 YA	1.5"	RP BACKFLOW PREVENTOR
A	RAINBIRD	ESP-32-MC	32 STATION	AUTOMATIC CONTROLLER
	RAINBIRD	XCZ-100COM	1"	AUTOMATIC DRIP VALVE
	RAINBIRD	150-PEB	1.5"	AUTOMATIC VALVE
	RAINBIRD	700 CF	1"	DRIP FLUSH CAP
	RAINBIRD	44 LRC	1"	QUICK COUPLER VALVE
	MINI-CLIK	502	N/A	RAIN SHUTOFF SENSOR

NOTES

1. USE ALL CLASS 200 BOE SOLVENT WELD PVC PIPE (1-1/2" SIZE UNLESS OTHERWISE NOTED) FOR MAINLINES.
2. USE CLASS 160 BOE SOLVENT WELD PVC PIPE (1" SIZE UNLESS OTHERWISE NOTED) FOR LATERALS.
3. SLEEVING AT ALL ROADWAY CROSSINGS HAVE BEEN NOTED WITH SIZE AND DEPTH REQUIRED. SLEEVE ALL WALKS OR DRIVEWAYS WITH CL200 PVC PIPE SIZED TWICE (2X) THE PIPE DIAMETER CARRIED. WIRE CROSSINGS SHALL BE IN SEPARATE 2" CL200 PVC SLEEVE PARALLEL TO MAINLINE SLEEVE.
4. INSTALL #14PE IRRIGATION WIRING BETWEEN ALL ELECTRIC SOLENOID VALVES AND CONTROLLER. USE KING BROTHERS CONNECTORS FOR ALL UNDERGROUND WIRE CONNECTIONS.
5. INSTALL ALL HEADS ON SWING PIPE RISER ASSEMBLIES AS SHOWN ON DETAIL SHEET.
6. INSTALL ALL VALVES IN AMETEK #10-170 BOXES WITH EXTENSIONS AS REQUIRED.
7. INSTALL 75K-3/4" MATCO MANUAL DRAIN VALVES AT ALL LOW POINTS ALONG MAINLINE (NOTE ON AS-BUILT). MINIMUM OF ONE PER 300' OF MAINLINE REQUIRED.
8. THIS DESIGN IS BASED ON OWNER PROVIDING 1-1/2" METER & WATER SUPPLY WITH A MINIMUM OF 80 PSI STATIC PRESSURE AND ASSUMES A MAXIMUM FLOW OF 50 GPM THROUGH ANY VALVE(S) PER MANUFACTURERS SPECIFICATIONS.
9. REFER TO IRRIGATION DETAIL SHEETS FOR FURTHER DETAILS, NOTES, AND VALVE SCHEDULE.

CONTROLLER STATION — A3 — VALVE SIZE 1.5" — 25.9 GPM — ESTIMATED GPM

SLEEVE SIZE — 6"/24" — DEPTH
SLEEVE ALL ROADS, WALKS, WALLS, DRIVES AND SIDEWALKS

CONTROLLER STATION — A3 — VALVE SIZE 1.5" — L.F. OF DRIP TUBING 456' — DRIP EMITTER SPACING 24" — 25.9 GPM — ESTIMATED GPM

TRANSITION POINT BETWEEN DIFFERENT LATERAL TYPES
LD-09-24 DRIP TUBING (TYP.) ON SURFACE BELOW MULCH & FABRIC
1" PVC WITH 3" BURY DEPTH BELOW GROUND MINIMUM (TYP.)

DRIP LATERAL SIZING

Note: LOCATION OF ALL SLEEVING AND MAINLINE IS DIAGRAMMATIC ONLY. ROUTE ALL EQUIPMENT THROUGH LANDSCAPED AREAS AND SLEEVE UNDER ALL HARDSCAPE AS REQUIRED TO CONNECT LANDSCAPED AREAS.

CALL BEFORE YOU DIG... 1-800-922-1987
48 HOURS BEFORE YOU DIG, CALL UTILITY NOTIFICATION CENTER OF COLORADO FOR LOCATING AND MARKING GAS, ELECTRIC, WATER AND WASTEWATER

THIS DOCUMENT IS NOT A CONSTRUCTION DOCUMENT.

THIS DOCUMENT IS FOR CITY REVIEW AND APPROVAL PURPOSES ONLY

SCALE 1" = 20' - 0" (0, 10', 20', 30', 40')
NORTH

CPC PUD 02-052
CPC DP 02-053

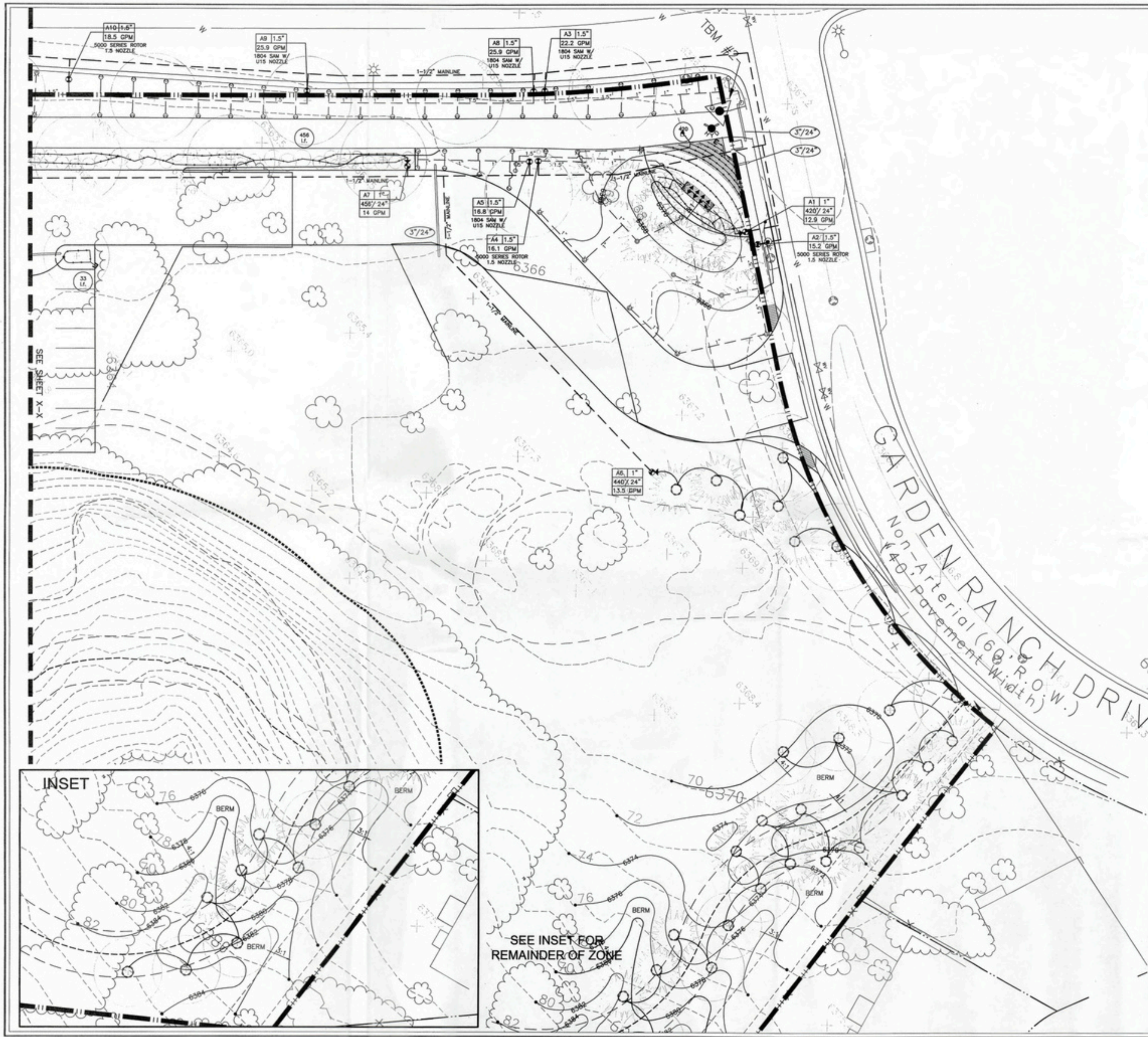
Land Patterns, Inc.
Landscape Architecture

FINAL LANDSCAPE & IRRIGATION DEVELOPMENT PLAN for
BETH-EL MENNONITE CHURCH
4625 RANCH DRIVE
COLORADO SPRINGS, CO

Sheet Title:
Irrigation Plan

PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: BDK
Checked By: JRH
Date: 03/15/02
Scale: 1"=20'-0"
Job No.: 00027



HEAD LEGEND

SYM	MFG	MODEL	NOZZLE	PSI	GPM	RADIUS
	RAINBIRD	1804 SAM PRS	MPR 5Q	30	0.10	5' RAD.
▼	RAINBIRD	1804 SAM PRS	MPR 5H	30	0.20	5' RAD.
⊕	RAINBIRD	1804 SAM PRS	U12/U15 (F)	30	2.60/3.70	12–15' RAD.
	RAINBIRD	1804 SAM PRS	U12/U15 (H)	30	1.30/1.85	12–15' RAD.
	RAINBIRD	1804 SAM PRS	U12/U15 (Q)	30	0.65/0.92	12–15' RAD.
	RAINBIRD	1804 SAM PRS	U12/U15 (T)	30	0.87/1.23	12–15' RAD.
	RAINBIRD	3500 SERIES	0.75 (F)	55	1.70	18' RAD.
	RAINBIRD	3500 SERIES	0.75 (H,Q)	55	0.43–0.85	18' RAD.
	RAINBIRD	5000 SERIES	1.5 (F)	65	3.72	29–34' RAD.
	RAINBIRD	5000 SERIES	1.5 (H,Q)	65	1.86	29–34' RAD.
	RAINBIRD	IN-LINE DRIP TUBE	LD-09-24	30	0.9 GPH/2'	DRIP
○	RAINBIRD	4' DIA. TREERING	LD-09-24	30	0.9 GPH/2'	DRIP

EQUIPMENT LEGEND

SYM	MFG	MODEL	SIZE	DESCRIPTION
○				POINT OF CONNECTION
	FEBCO	825 YA	1.5"	RP BACKFLOW PREVENTOR
	RAINBIRD	ESP-32-MC	32 STATION	AUTOMATIC CONTROLLER
	RAINBIRD	XCZ-100COM	1"	AUTOMATIC DRIP VALVE
	RAINBIRD	150-PEB	1.5"	AUTOMATIC VALVE
	RAINBIRD	700 CF	1"	DRIP FLUSH CAP
	RAINBIRD	44 LRC	1"	QUICK COUPLER VALVE
	MINI-CLIK	502	N/A	RAIN SHUTOFF SENSOR

NOTES

1. USE ALL CLASS 200 BOE SOLVENT WELD PVC PIPE (1-1/2" SIZE UNLESS OTHERWISE NOTED) FOR MAINLINES.
2. USE CLASS 160 BOE SOLVENT WELD PVC PIPE (1" SIZE UNLESS OTHERWISE NOTED) FOR LATERALS.
3. SLEEVING AT ALL ROADWAY CROSSINGS HAVE BEEN NOTED WITH SIZE AND DEPTH REQUIRED. SLEEVE ALL WALKS OR DRIVEWAYS WITH CL200 PVC PIPE SIZED TWICE (2X) THE PIPE DIAMETER CARRIED. WIRE CROSSINGS SHALL BE IN SEPARATE 2" CL200 PVC SLEEVE PARALLEL TO MAINLINE SLEEVE.
4. INSTALL #14PE IRRIGATION WIRING BETWEEN ALL ELECTRIC SOLENOID VALVES AND CONTROLLER. USE KING BROTHERS CONNECTORS FOR ALL UNDERGROUND WIRE CONNECTIONS.
5. INSTALL ALL HEADS ON SWING PIPE RISER ASSEMBLIES AS SHOWN ON DETAIL SHEET.
6. INSTALL ALL VALVES IN AMETEK #10-170 BOXES WITH EXTENSIONS AS REQUIRED.
7. INSTALL 75K-3/4" MATCO MANUAL DRAIN VALVES AT ALL LOW POINTS ALONG MAINLINE (NOTE ON AS-BUILT). MINIMUM OF ONE PER 300' OF MAINLINE REQUIRED.
8. THIS DESIGN IS BASED ON OWNER PROVIDING 1-1/2" METER & WATER SUPPLY WITH A MINIMUM OF 80 PSI STATIC PRESSURE AND ASSUMES A MAXIMUM FLOW OF 50 GPM THROUGH ANY VALVE(S) PER MANUFACTURERS SPECIFICATIONS.
9. REFER TO IRRIGATION DETAIL SHEETS FOR FURTHER DETAILS, NOTES, AND VALVE SCHEDULE.

CONTROLLER STATION — VALVE SIZE
A3 1.5"
25.9 GPM
ESTIMATED GPM

SLEEVE SIZE — DEPTH
6"/24"
SLEEVE ALL ROADS, WALKS, WALLS, DRIVES AND SIDEWALKS

CONTROLLER STATION — VALVE SIZE
L.F. OF DRIP TUBING — DRIP EMITTER SPACING
A3 1.5"
458'/24"
25.9 GPM
ESTIMATED GPM

TRANSITION POINT BETWEEN DIFFERENT LATERAL TYPES
LD-09-24 DRIP TUBING (TYP.) ON SURFACE BELOW MULCH & FABRIC
1" PVC WITH 3" BURY DEPTH BELOW GROUND MINIMUM (TYP.)

DRIP LATERAL SIZING

Note: LOCATION OF ALL SLEEVING AND MAINLINE IS DIAGRAMMATIC ONLY. ROUTE ALL EQUIPMENT THROUGH LANDSCAPED AREAS AND SLEEVE UNDER ALL HARDSCAPE AS REQUIRED TO CONNECT LANDSCAPED AREAS.

CALL BEFORE YOU DIG... 1-800-922-1987
48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS FOR LOCATING AND MARKING GAS, ELECTRIC, WATER AND WASTEWATER

THIS DOCUMENT IS NOT A CONSTRUCTION DOCUMENT.

THIS DOCUMENT IS FOR CITY REVIEW AND APPROVAL PURPOSES ONLY.

SCALE 1" = 20' - 0" NORTH

CPC PUD 02-052
CPC DP 02-053

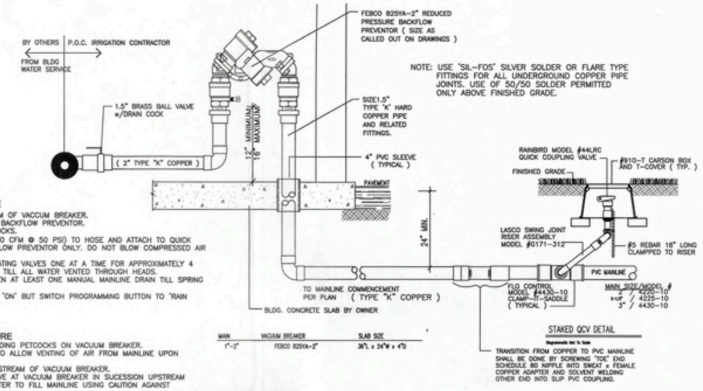
Land Patterns, Inc.
Landscape Architecture

FINAL LANDSCAPE & IRRIGATION DEVELOPMENT PLAN
for
BETH-EL MENNONITE CHURCH
4625 RANCH DRIVE
COLORADO SPRINGS, CO

Sheet Title:
Irrigation Plan

PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: BDK
Checked By: JRH
Date: 03/15/02
Scale: 1"=20'-0"
Job No.: 00027



MAIN	VACUUM BREAKER	SLAB SIZE
1"-2"	FEBCO 825YA-2"	36"L x 24"W x 4"D

WINTERIZATION PROCEDURE

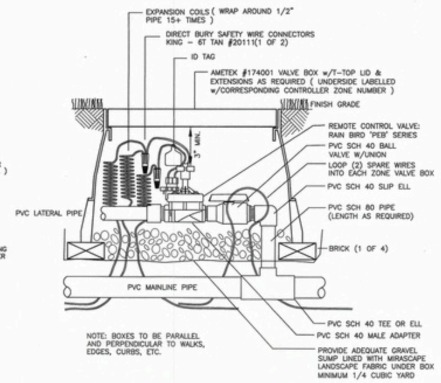
1. SHUTOFF BALL VALVE UPSTREAM OF VACCUM BREAKER.
2. CLOSE BOTH BALL VALVES ON BACKFLOW PREVENTOR.
3. OPEN VACUUM BREAKER PETCOCKS.
4. ATTACH AIR COMPRESSOR (250 CFM @ 50 PSI) TO HOSE AND ATTACH TO QUICK COUPLER DOWNSTREAM OF BACKFLOW PREVENTOR ONLY. DO NOT BLOW COMPRESSED AIR THROUGH BACKFLOW PREVENTOR.
5. CHARGE MAINLINE WHILE OPERATING VALVES ONE AT A TIME FOR APPROXIMATELY 4 MINUTES EACH ZONE AND REPEAT TILL ALL WATER VENTED THROUGH HEADS.
6. DETACH COMPRESSOR AND OPEN AT LEAST ONE MANUAL MAINLINE DRAIN TILL SPRING STARTUP.
7. LEAVE POWER TO CONTROLLER 'ON' BUT SWITCH PROGRAMMING BUTTON TO 'RAIN SHUTDOWN'.

SPRING START-UP PROCEDURE

1. CLOSE MAINLINE DRAINS INCLUDING PETCOCKS ON VACUUM BREAKER.
2. INSERT QUICK COUPLER KEY TO ALLOW VENTING OF AIR FROM MAINLINE UPON FILL PROCESS.
3. SLOWLY OPEN BALL VALVE UPSTREAM OF VACUUM BREAKER.
4. SLOWLY OPEN EACH BALL VALVE AT VACUUM BREAKER IN SUCESSION UPSTREAM THEN DOWNSTREAM ALLOWING WATER TO FILL MAINLINE USING CAUTION AGAINST SURGING SYSTEM.
5. OPERATE EACH ZONE VALVE. CHECK FOR ANY ADJUSTMENTS OR REPAIRS NECESSARY.
6. PROGRAM CONTROLLER FOR SPRING OPERATION TIME SETTINGS.

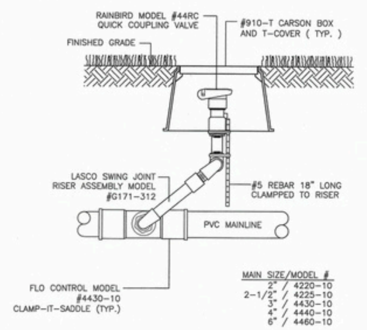
A/13 'RP' BACKFLOW PREVENTOR DETAIL

NOT TO SCALE



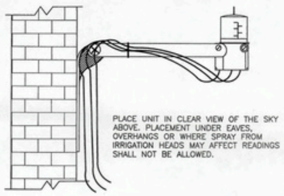
E/13 SOLENOID VALVE DETAIL

NOT TO SCALE



H/13 STAKED QCV DETAIL

NOT TO SCALE



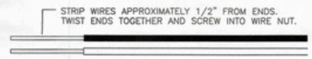
C/13 HUNTER MINI-CLIK II RAIN SENSOR

NOT TO SCALE

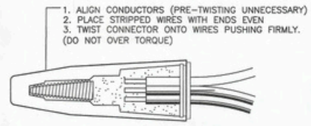
DIRECT BURY/30V SINGLE CONDUCTOR TYPE

FOR ALL UNDERGROUND CONNECTIONS LAWN IRRIGATION SYSTEMS

NOTE: FOR DIRECT BURIAL SPLICES WITH WIRE SIZES No. 14, No. 12 AND No. 10. MAXIMUM OF THREE WIRES PER CONNECTOR.



STEP 1

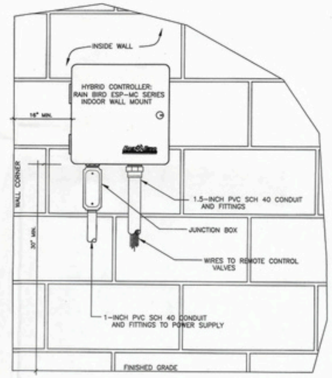


STEP 2

IMPORTANT: TURN OFF POWER BEFORE INSTALLING OR REMOVING CONNECTOR.

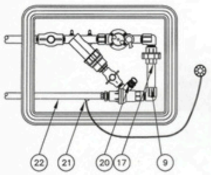
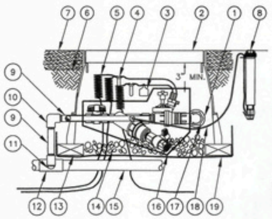
F/13 WIRE CONNECTION DETAIL

NOT TO SCALE



I/13 ESP-32MC OUTDOOR CONTROLLER

NOT TO SCALE

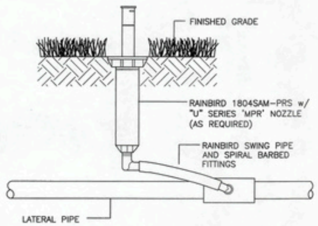



1. PVC SCH 80 NIPPLE (CLOSE)
2. VALVE BOX WITH COVER: AMETEK 10-190 JUMBO SERIES
3. ID TAG: RAIN BIRD SERIES ID TAG
4. WATER PROOF CONNECTION RAIN BIRD SPLICE-1 (1 OF 2)
5. 30-INCH LINEAR LENGTH OF WIRE, COILED
6. FINISH GRADE
7. TOP OF MULCH
8. MICRO SPRAY POP-UP: RAIN BIRD XP-600X WITH SHUTOFF NOZZLE PAINT ORANGE FOR ZONE INDICATOR
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. PVC SCH 40 ELL
11. PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
12. PVC SCH 40 TEE OR ELL
13. BRICK (1 OF 4)
14. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
15. PVC MAINLINE
16. CONTROL ZONE KIT: RAIN BIRD MODEL XCZ-100COM
17. PVC SCH 80 UNION FOR SERVICING ASSEMBLY
18. RAINBIRD DT-025 DISTRIBUTION TUBING
19. LANDSCAPE FABRIC WRAP
20. 3/4" BRASS MPTxHOSE TREAD ADAPTER
21. 1/4" SELF-PIERCING BARB CONNECTOR: RAIN BIRD SPB-025
22. 1/2" POLYETHYLENE TUBING: RAIN BIRD XERI-TUBE 700

INSTALLER TO PROVIDE A MINIMUM 1/2"x4" HOSE LENGTH WITH CONNECTOR ATTACHED TO FLUSH ADAPTER AND COILED INSIDE VALVE BOX TO ALLOW FOR FLUSHING TO ABOVE GROUND DISCHARGE AS REQUIRED.

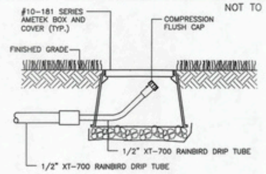
B/13 DRIP VALVE ASSEMBLY IN VALVE BOX

NOT TO SCALE



D/13 SPRAY SPRINKLER W/ SWING PIPE DETAIL

NOT TO SCALE



G/13 DRIP FLUSHING END CAP DETAIL

NOT TO SCALE

CALL BEFORE YOU DIG... 1-800-922-1987

48 HOURS BEFORE YOU DIG, CALL UTILITY NOTIFICATION CENTER FOR LOCATING AND MARKING GAS, ELECTRIC, WATER AND WASTEWATER

THIS DOCUMENT IS NOT A CONSTRUCTION DOCUMENT.

THIS DOCUMENT IS FOR CITY REVIEW AND APPROV[AL] PURPOSES ONLY.

CPC PUD 02-052
CPC DP 02-053

Land Patterns, Inc.
Landscape Architecture

FINAL LANDSCAPE & IRRIGATION DEVELOPMENT PLAN for

BETH-EL MENNONITE CHURCH

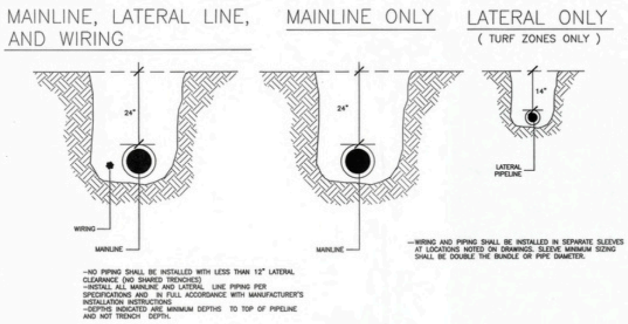
4625 RANCH DRIVE
COLORADO SPRINGS, CO

Sheet Title: Irrigation Details

Revisions	By
PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

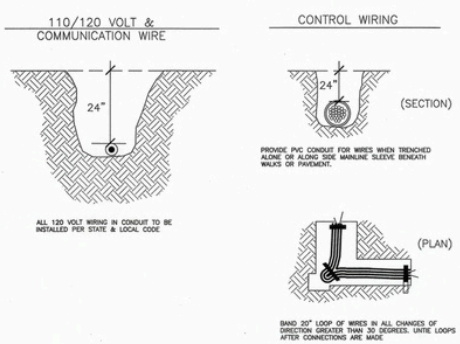
Drawn By: BDK
Checked By: JRH
Date: 03/15/02
Scale: 1"=20'-0"
Job No.: 00027

14



A IR-4 PVC PIPE TRENCHING DETAIL

NOT TO SCALE



B IR-4 WIRE TRENCHING DETAIL

NOT TO SCALE

GENERAL NOTES:

A– PLANS ARE DIAGRAMMATIC; PRECISE PLACEMENT OF EQUIPMENT MAY NOT BE POSSIBLE AS INDICATED. CONSULT PROJECT MANAGER PRIOR TO MAKING RANDOM FIELD CHANGES WHICH MAY ALTER THE INTENT OF THE DESIGN.

B– SCOPE OF WORK TO BE PROVIDED AND INSTALLED BY IRRIGATION SYSTEM CONTRACTOR TO INCLUDE BUT MAY NOT BE LIMITED TO:

1– PROVISION AND INSTALLATION OF ALL EQUIPMENT REQUIRED PER THE DRAWINGS, EQUIPMENT SCHEDULE, AND SPECIFICATIONS, INCLUDING ALL MISCELLANEOUS INCIDENTAL EQUIPMENT, WHETHER INDICATED OR NOT BUT WHICH MAY BE REQUIRED TO RESULT IN A COMPLETE AND OPERABLE IRRIGATION SYSTEM (FROM P.O.C.).

2– COORDINATION AND INSTALLATION OF ALL SUBSURFACE SLEEVES AS INDICATED ON THE DRAWINGS.

3– FLAGGING OF ALL SPRINKLER HEAD AND CONTROL VALVE LOCATIONS, AND MARKING OF ALL MAINLINE AND LATERAL PIPELINE LOCATIONS FOR INSPECTION AND APPROVAL BY PROJECT MANAGER PRIOR TO TRENCHING AND EXCAVATING.

4– TESTING FOR STATIC WATER PRESSURE AND POINT OF CONNECTION AND DETERMINING ADEQUACY FOR USE PRIOR TO COMMENCING WORK DOWNSTREAM OF POINT OF CONNECTION. INADEQUATE PRESSURE SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER AND DEFICIENCIES SHALL BE CORRECTED PRIOR TO COMMENCEMENT OF WORK DOWNSTREAM OF POINT OF CONNECTION. FAILURE TO TEST AND VERIFY ADEQUACY OF STATIC PRESSURE AND DETERMINING FEASIBILITY OF OPERATION AS INTENDED BY DESIGN PRIOR TO COMMENCEMENT OF WORK DOWNSTREAM OF BACKFLOW PREVENTERS SHALL NOT PRECLUDE IRRIGATION INSTALLER'S RESPONSIBILITY TO PROVIDE OPTIMUM COVERAGE OF LANDSCAPED AREAS AS INTENDED BY DESIGN.

5– PROVISION AND INSTALLATION OF ALL CONTROLLERS, CABINETS, PEDESTAL MOUNTINGS, CONCRETE PADS, AND ANY CONTROLLER–RELATED EQUIPMENT AS MAY BE REQUIRED PER THE DRAWINGS AND SPECIFICATIONS. INSTALLER IS RESPONSIBLE FOR MAKING ALL LOW VOLTAGE WIRING CONNECTIONS FROM REMOTE CONTROL VALVES TO ALL CONTROLLERS AND FOR CORRECT SEQUENCING OF ALL VALVE OPERATION AS INDICATED IN THE CONTROL VALVE ZONE SCHEDULE.

6– ACTIVATION OF ALL IRRIGATION SYSTEMS AND ADJUSTMENT OF ALL FLOW CONTROLS AND NOZZLES FOR OPTIMUM PERFORMANCE AND COVERAGE AS INTENDED BY DESIGN WITH MINIMAL OVERSPRAY ONTO PAVEMENTS. INSTALLER IS RESPONSIBLE FOR ALL ADJUSTMENT TO NOZZLES, RISERS, FLOW CONTROLS, ETC., PRIOR TO REQUEST FOR INSPECTION BY THE PROJECT MANAGER. ALL ZONES SHALL HAVE BEEN PROGRAMMED AND PERMITTED TO OPERATE AUTOMATICALLY VIA CONTROLLERS THROUGH COMPLETE CYCLES FOR A PERIOD OF NOT LESS THAN 24 HOURS PRIOR TO INSPECTION FOR OPERATION BY PROJECT MANAGER.

7– DEMONSTRATION OF OPERATION OF SYSTEM IN AN AUTOMATIC MODE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. THE PROJECT MANAGER SHALL BE GIVEN NOT LESS THAN 24 HOURS NOTICE THAT AN INSPECTION FOR OPERATION IS REQUESTED. REQUESTS FOR INSPECTIONS SHALL BE ON A "PER TAP/CONTROLLER" BASIS. ACCEPTANCE FOR SUBSTANTIAL COMPLETION MAY BE GIVEN BY THE OWNER ON A "PER TAP/CONTROLLER" BASIS, HOWEVER FINAL ACCEPTANCE FOR WORK AND COMMENCEMENT OF WARRANTIES SHALL BE GIVEN UPON COMPLETION, INSPECTION, AND ACCEPTANCE OF ALL WORK REQUIRED PER THE DRAWINGS, SPECIFICATIONS, AND CONTRACT DOCUMENTS.

8– COMPLETE CLEANUP OF ALL DIRT, UNUSED MATERIALS, AND OTHER DEBRIS SHALL BE PERFORMED BY THE INSTALLER PRIOR OWNER'S INSPECTION FOR FINAL ACCEPTANCE. PAVEMENTS WITHIN THE WORK AREAS SHALL BE THOROUGHLY SWEPT AND POWER WASHED WITH WATER AS MAY BE NECESSARY TO REMOVE DIRT AND DEBRIS. ALL ROAD PATCHES SHALL BE COMPLETE, FLAGS REMOVED, AND FINE TUNING ADJUSTMENTS MADE PRIOR TO INSPECTION FOR FINAL ACCEPTANCE.

9– AS–BUILT REPRODUCIBLE RECORD DRAWINGS, WRITTEN WARRANTIES, SEASONAL MAINTENANCE INSTRUCTIONS, AND SPARE EQUIPMENT SHALL BE PROVIDED BY THE INSTALLER AT INSPECTION FOR FINAL ACCEPTANCE. SUBMITTALS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS. FAILURE TO MAKE ALL PROJECT CLOSEOUT SUBMITTALS AT THE REQUIRED TIME IN THE REQUIRED FORMAT MAY RESULT IN DELAY OF FINAL ACCEPTANCE AND RELEASE OF APPLICABLE RETAINAGES BY THE OWNER.

C– IRRIGATION INSTALLER SHALL BE RESPONSIBLE FOR PROVIDING A 30 DAY ON–SITE MAINTENANCE PROGRAM, TO INCLUDE BUT NOT NECESSARILY LIMITED TO FINE TUNING OF NOZZLES, FLOW CONTROLS, AND OTHER EQUIPMENT INSTALLED UNDER THE CONTRACT TO MAINTAIN OPTIMUM OPERATION OF ALL SYSTEMS AT ALL TIMES. CONTROLLER PROGRAMMING SHALL BE COORDINATED WITH THE OWNER TO ESTABLISH AND PROMOTE GROWTH OF PLANTINGS MADE UNDER THE CONTRACT, AND TO SUSTAIN OPTIMUM PLANT APPEARANCE AT ALL TIMES AS SEASONALLY APPROPRIATE.

D– IRRIGATION INSTALLER SHALL BE RESPONSIBLE FOR PERFORMANCE OF SEASONAL MAINTENANCE TO INCLUDE BUT NOT NECESSARILY LIMITED TO DEACTIVATION AND ACTIVATION OF ALL IRRIGATION SYSTEMS TO PREVENT FREEZE DAMAGE TO ALL EQUIPMENT. INSTALLER SHALL BE RESPONSIBLE FOR COORDINATION AND PERFORMANCE OF ALL SEASONAL MAINTENANCE PROCEDURES REQUIRED TO DEACTIVATE SYSTEMS ON OR BY OCTOBER 1ST OF THE FIRST YEAR FOLLOWING DATE OF FINAL ACCEPTANCE, AND ACTIVATION OF IRRIGATION SYSTEMS SHALL BE PERFORMED ON OR BY APRIL 1ST OF THE YEAR FOLLOWING DEACTIVATION. IN THE EVENT THE INSPECTION FOR FINAL ACCEPTANCE OCCURS AFTER OCTOBER 1ST, REQUIRED SEASONAL MAINTENANCE SCHEDULE SHALL BE EXTENDED TO OCCUR THE YEAR FOLLOWING FINAL ACCEPTANCE OF ALL WORK.

E– A 1 YEAR CONDITIONAL WARRANTY SHALL BE EXTENDED BY THE INSTALLER TO COVER ALL MATERIAL AND WORKMANSHIP PROVIDED UNDER THE CONTRACT. DURING THE 1 YEAR WARRANTY PERIOD, ANY INSTALLATION WHICH BECOMES INOPERABLE, OR WHICH DOES NOT OPERATE AS ORIGINALLY INTENDED (I.E. CONDITION AS OBSERVED AND ACCEPTED AT INSPECTION FOR FINAL ACCEPTANCE,) THE INSTALLER SHALL REPAIR AND/OR REPLACE ANY WORK WHICH CAN BE ATTRIBUTED TO DEFICIENT OPERATION AT NO EXTRA COST TO THE OWNER. DEFICIENCIES MAY INCLUDE BUT ARE NOT LIMITED TO LEAKS, SETTLEMENT OF TRENCHES GREATER THAN ONE INCH, FREEZE DAMAGE, AND EQUIPMENT DEFECTS. VANDALISM, IMPROPER USE AND MAINTENANCE OF SYSTEMS BY OWNER RESULTING IN DEFICIENCIES SHALL NOT BE THE RESPONSIBILITY OF THE INSTALLER, AND REPAIR/REPLACEMENT MAY BE MADE AT EXTRA COST TO THE OWNER AS AGREED.

F– ALL INSTALLATIONS SHALL BE MADE IN STRICT ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, DOCUMENTS, AND STATE & LOCAL CODES AND ORDINANCES HAVING JURISDICTION OVER THE WORK. IN THE EVENT OF CONFLICT BETWEEN REQUIREMENTS, THE MOST STRINGENT REQUIREMENT WILL PREVAIL IN ANY CASE.

G– QUANTITIES WHICH MAY BE STATED OR IMPLIED IN SCHEDULES, GENERAL NOTES, ETC., ARE PROVIDED FOR REFERENCE ONLY. IN THE EVENT OF CONFLICT, THAT QUANTITY WHICH IS REPRESENTED GRAPHICALLY PER THE DRAWINGS SHALL PREVAIL IN ANY CASE.

H– ALL IRRIGATION WORK SHALL BE COORDINATED WITH LANDSCAPE AND SITEWORK. DO NOT WILLFULLY MAKE ANY INSTALLATION WHICH MAY INTERFERE WITH IRRIGATION SYSTEM OPERATION AND COVERAGE AS INTENDED BY DESIGN. NOTIFY THE PROJECT MANAGER OF SUCH CONFLICTS AND RESOLVE CONFLICTS PRIOR TO PROCEEDING WITH WORK.

I– ALTERNATE EQUIPMENT FROM THAT INDICATED ON THE DRAWINGS AND SPECIFICATIONS, WHICH WHEN INSTALLED WILL RESULT IN EQUAL PERFORMANCE, IMPROVED PERFORMANCE, AND/OR CONSIDERABLE COST SAVINGS TO THE OWNER WITH EQUAL OR IMPROVED PERFORMANCE TO THAT INDICATED MAY BE CONSIDERED BY OWNER. ALL PROPOSED ALTERNATE EQUIPMENT MUST BE PROPOSED TO AND APPROVED BY THE OWNER PRIOR TO SUBMITTAL OF BID PROPOSAL. ONLY THOSE ALTERNATE MANUFACTURER'S AND EQUIPMENT LISTED IN THE SPECIFICATIONS WILL BE CONSIDERED. PROVISION/INSTALLATION OF ALTERNATE EQUIPMENT WITHOUT PRIOR APPROVAL BY THE OWNER MAY RESULT IN DELAY AND/OR REJECTION OF FINAL ACCEPTANCE OF ALL WORK.

J– UPON ENTERING INTO AN AGREEMENT TO PROVIDE LABOR AND MATERIAL TO COMPLETE ALL WORK REQUIRED UNDER THIS SECTION, THE INSTALLER HEREBY GUARANTEES TO THE OWNER THAT WORK WILL BE EXECUTED TO THE BEST OF THE INSTALLER'S ABILITY. THE INSTALLER WILL NOT QUALIFY ANY TERM, CONDITION, OR REQUIREMENT STATED HEREIN AT ANY TIME DURING OR AFTER COMPLETION OF AGREEMENT TO PROVIDE WORK UNDER THIS SECTION. THE INSTALLER MAY HAVE CERTAIN RIGHTS PERTAINING TO THIS GUARANTEE AS MAY DESCRIBED IN THE GENERAL CONDITIONS OF THE AGREEMENT BETWEEN THE OWNER AND CONTRACTOR.

CALL BEFORE YOU DIG... 1-800-922-1987

48 HOURS BEFORE YOU DIG, CALL UTILITY NOTIFICATION CENTER FOR LOCATING AND MARKING GAS, ELECTRIC, WATER AND WASTEWATER

THIS DOCUMENT IS NOT A CONSTRUCTION DOCUMENT.

THIS DOCUMENT IS FOR CITY REVIEW AND APPROVAL PURPOSES ONLY.

HEAD SCHEDULE

SYM	QTY	MFG	MODEL	NOZZLE	PSI	GPM	COVERAGE
	4	RAINBIRD	1804 SAM PRS	MPR 5Q	30	0.10	5' RAD.
	8	RAINBIRD	1804 SAM PRS	MPR 5H	30	0.20	5' RAD.
	1	RAINBIRD	1804 SAM PRS	U12 (F)	30	2.60	12–15' RAD.
	9	RAINBIRD	1804 SAM PRS	U12 (H)	30	1.30	12–15' RAD.
	7	RAINBIRD	1804 SAM PRS	U12 (Q)	30	0.65	12–15' RAD.
	1	RAINBIRD	1804 SAM PRS	U12 (T)	30	0.87	12–15' RAD.
	2	RAINBIRD	1804 SAM PRS	U15 (F)	30	3.70	12–15' RAD.
	50	RAINBIRD	1804 SAM PRS	U15 (H)	30	1.85	12–15' RAD.
	7	RAINBIRD	1804 SAM PRS	U15 (Q)	30	0.92	12–15' RAD.
	1	RAINBIRD	1804 SAM PRS	U15 (T)	30	1.23	12–15' RAD.
	2	RAINBIRD	3500 SERIES	0.75 (F)	55	1.70	18' RAD.
	13	RAINBIRD	3500 SERIES	0.75 (H,Q)	55	0.43–0.85	18' RAD.
	11	RAINBIRD	5000 SERIES	1.5 (F)	65	3.72	29–34' RAD.
	29	RAINBIRD	5000 SERIES	1.5 (H,Q)	65	1.86	29–34' RAD.
	2,673 L.F.	RAINBIRD	IN–LINE DRIP TUBE	LD–09–24	30	0.9 GPH/2'	DRIP
	53	RAINBIRD	4" DIA. TREERING	LD–09–24	30	0.9 GPH/2'	DRIP

EQUIPMENT SCHEDULE

SYM	QTY	MFG	MODEL	SIZE	DESCRIPTION
	1	FEBCO	825 YA	1.5"	RP BACKFLOW PREVENTOR
	1	RAINBIRD	ESP–32–MC	32 STATION	AUTOMATIC CONTROLLER
	7	RAINBIRD	XCZ–100COM	1"	AUTOMATIC DRIP VALVE
	15	RAINBIRD	150–PEB	1.5"	AUTOMATIC VALVE
	10	RAINBIRD	700 CF	1"	DRIP FLUSH CAP
	3	RAINBIRD	44 LRC	1"	QUICK COUPLER VALVE
	1	MINI–CLIK	502	N/A	RAIN SHUTOFF SENSOR

VALVE SCHEDULE-CONTROLLER 'A'

EXISTING 30 STA.-GALYAN'S

VALVE #	EST. GPM	SIZE	MINS/APP	HYDROZONE ZONE TYPE
A1	12.9 GPM	1"	15	'L'– LANDSCAPE DRIPLINE, SHRUB BEDS
A2	15.2 GPM	1.5"	30	'M'– POP–UP ROTOR HEADS, SODDED FESCUE TURF
A3	22.2 GPM	1.5"	10	'M'– POP–UP SPRAY HEADS, SODDED FESCUE TURF
A4	16.1 GPM	1.5"	30	'M'– POP–UP ROTOR HEADS, SODDED FESCUE TURF
A5	16.8 GPM	1.5"	10	'M'– POP–UP SPRAY HEADS, SODDED FESCUE TURF
A6	13.5 GPM	1"	15	'L'– LANDSCAPE DRIPLINE, SHRUB BEDS
A7	14.0 GPM	1"	15	'L'– LANDSCAPE DRIPLINE, SHRUB BEDS
A8	25.9 GPM	1.5"	10	'M'– POP–UP SPRAY HEADS, SODDED FESCUE TURF
A9	25.9 GPM	1.5"	10	'M'– POP–UP SPRAY HEADS, SODDED FESCUE TURF
A10	14.4 GPM	1.5"	30	'M'– POP–UP ROTOR HEADS, SODDED FESCUE TURF
A11	13.8 GPM	1"	15	'L'– LANDSCAPE DRIPLINE, SHRUB BEDS
A12	15.0 GPM	1.5"	30	'M'– POP–UP ROTOR HEADS, SODDED FESCUE TURF
A13	12.2 GPM	1"	15	'L'– LANDSCAPE DRIPLINE, SHRUB BEDS
A14	14.7 GPM	1"	15	'L'– LANDSCAPE DRIPLINE, SHRUB BEDS
A15	18.8 GPM	1.5"	12	'H'– POP–UP SPRAY HEADS, SODDED TURF
A16	15.7 GPM	1"	15	'L'– LANDSCAPE DRIPLINE, SHRUB BEDS
A17	12.8 GPM	1.5"	40	'H'– POP–UP ROTOR HEADS, SODDED TURF
A18	9.5 GPM	1"	15	'L'– LANDSCAPE DRIPLINE, SHRUB BEDS
A19	22.3 GPM	1.5"	10	'H'– POP–UP SPRAY HEADS, SODDED TURF
A20	25.2 GPM	1.5"	15	'L'– POP–UP ROTOR HEADS, NATIVE SEED AREAS
A21	22.3 GPM	1.5"	15	'L'– POP–UP ROTOR HEADS, NATIVE SEED AREAS
A22	19.6 GPM	1.5"	15	'L'– POP–UP ROTOR HEADS, NATIVE SEED AREAS
A23–A32	SPARE			

TOTAL OPERATION TIME FOR CYCLE 'A' CONTROLLER= 4.6 HOURS PLUS DRIP AT P.O.C.

BASED ON APPLICATION RATES OF 1.5" PER WEEK (4 DAYS PER WEEK CYCLE) FOR BLUEGRASS SOD AREAS.

BASED ON APPLICATION RATES OF 1.0" PER WEEK (4 DAYS PER WEEK CYCLE) FOR FESCUE SOD AREAS.

BASED ON APPLICATION RATES OF 0.75" PER WEEK (3 DAYS PER WEEK CYCLE) FOR NATIVE SEED AREAS.

BASED ON APPLICATION RATES OF 1.0" PER WEEK (4 DAYS PER WEEK CYCLE) FOR SHRUB AREAS.

RECOMMEND SPLITTING APPLICATION TIMES INTO TWO REPEAT CYCLES.

DESIGN BASED ON MAXIMUM OPERATION OF TWO STATIONS PER TAP MAXIMUM FLOW OF 44.4 GPM @ 80 PSI STATIC PRESSURE.

WORST CASE PSI LOSS

ZONE A12 @15.0 GPM

PIPE/DEVICE	DIST.	EST. LOSS	EST. PSI LOSS	TOTALS
1.5" CL200 MAINLINE	1173 L.F.	0.46/100'	5.40 PSI	–5.40 PSI
825YA BACKFLOW PREVENTOR	---	---	12.0 PSI	–12.0 PSI
PEB 150 VALVE	---	---	1.80 PSI	–1.80 PSI
LATERAL	VARIES	5% OF STATIC	4.00 PSI	–4.00 PSI
SWING JOINT	---	---	3.00 PSI	–3.00 PSI
1.5" METER	---	---	1.40 PSI	–1.40 PSI
ELEVATION GAIN/LOSS	0	---	0.00 PSI/FT GAIN	0.00 PSI
5004 SERIES W/ 1.5 NOZZLE	---	---	45.00 PSI	–45.00 PSI
TOTAL CALCULATED STATIC PSI REQUIRED				72.60 PSI
STATIC PSI AVAILABLE AT P.O.C.				80.00 PSI
RESIDUAL PSI AVAILBLE				7.40 PSI

CPC PUD 02–052
CPC DP 02–053

Land Patterns, Inc.
Landscape Architecture

FINAL LANDSCAPE & IRRIGATION DEVELOPMENT PLAN
for
BETH-EL MENNONITE CHURCH
4625 RANCH DRIVE
COLORADO SPRINGS, CO

Sheet Title: Irrigation Details

Revisions	By
PDP Revisions 10–09–02	BDK
FDP Revisions 04–15–04	DTM

Drawn By: BDK
Checked By: JRH
Date: 03/15/02
Scale: 1"=20'–0"
Job No.: 00027