

**Wolverton & Associates**  
 Consulting Engineers • Land Surveyors  
 4000 South 177th Avenue • Suite 100 • Edina, MN 55425  
 Phone: (763) 477-4444 • Fax: (763) 477-4425  
 www.wolvertonassoc.com



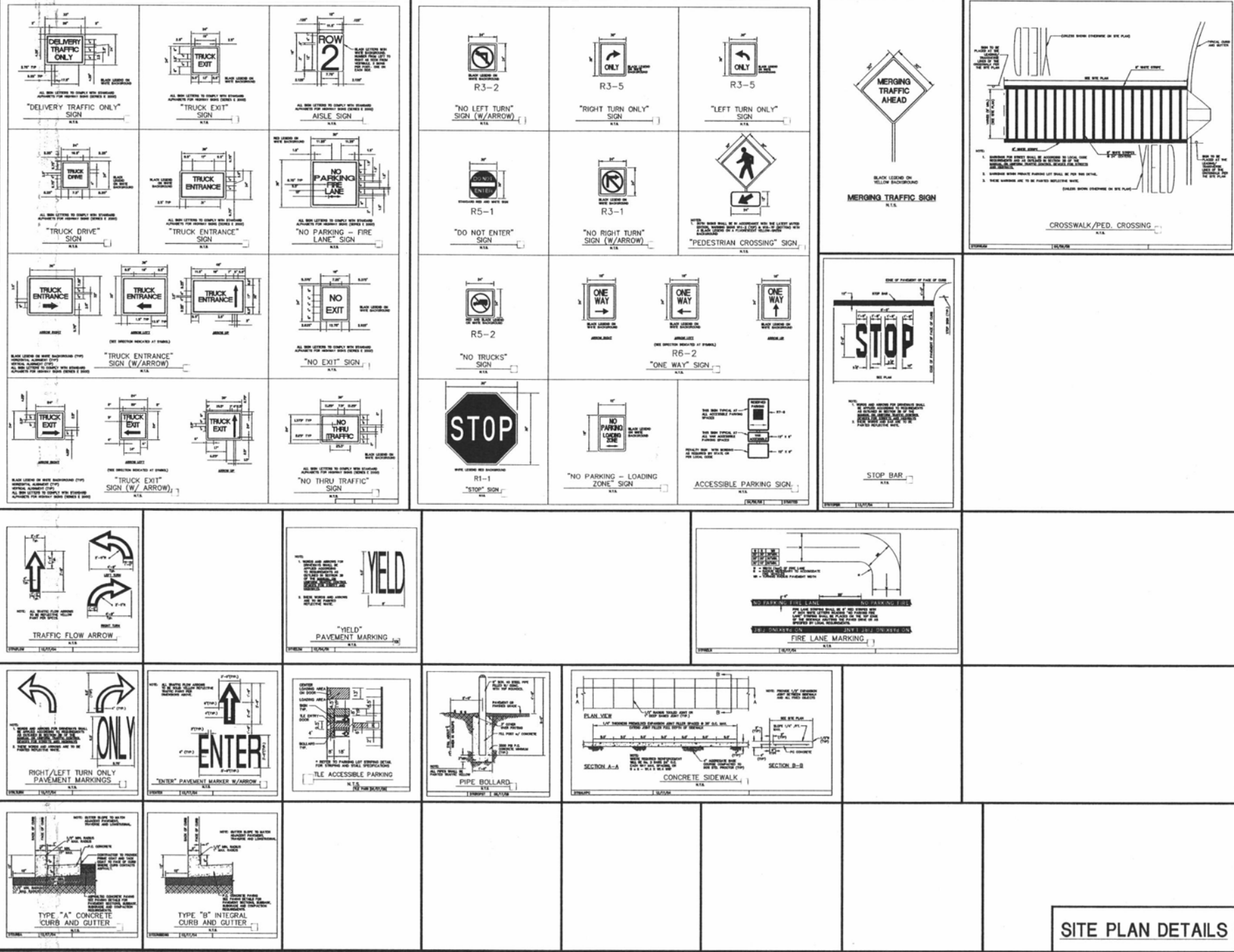
NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

PROPOSED BLACK HILLS CENTER  
 Walmark # 3872-03  
 RAPID CITY, PENNINGTON COUNTY, SD.  
 BY: THF, STONERIDGE DEVELOPMENT, LLC  
 ST. LOUIS, MO

REVISIONS	BY

DRAWN BY: DMN/CRP  
 CHECKED BY: KJW  
 DATE: 12/09/2010  
 SCALE: NO SCALE  
 JOB NO.: 08-140  
 SHEET NUMBER: D-1A  
 OF SHEETS: 2

**SITE PLAN DETAILS**



**W**olverton & Associates  
 Consulting Engineers & Land Surveyors  
 1014 North 77th Street, Suite 200  
 Lincoln, NE 68516  
 Phone: (402) 441-7000  
 Fax: (402) 441-7001  
 www.wolverton88.com



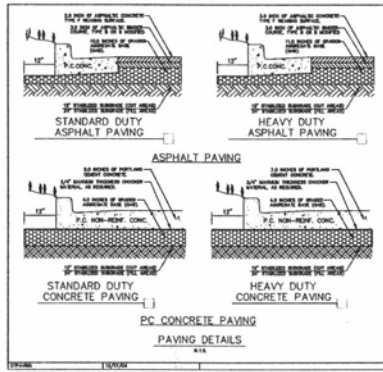
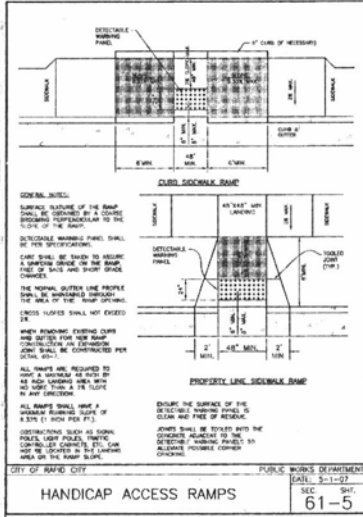
PROPOSED BLACK HILLS CENTER  
 Walmart # 3872-03  
 RAPID CITY, PENNINGTON COUNTY, S.D.  
 BY: THF, STONERIDGE DEVELOPMENT, LLC  
 ST. LOUIS, MO

NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

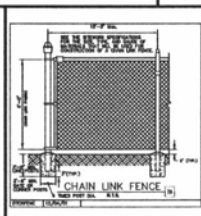
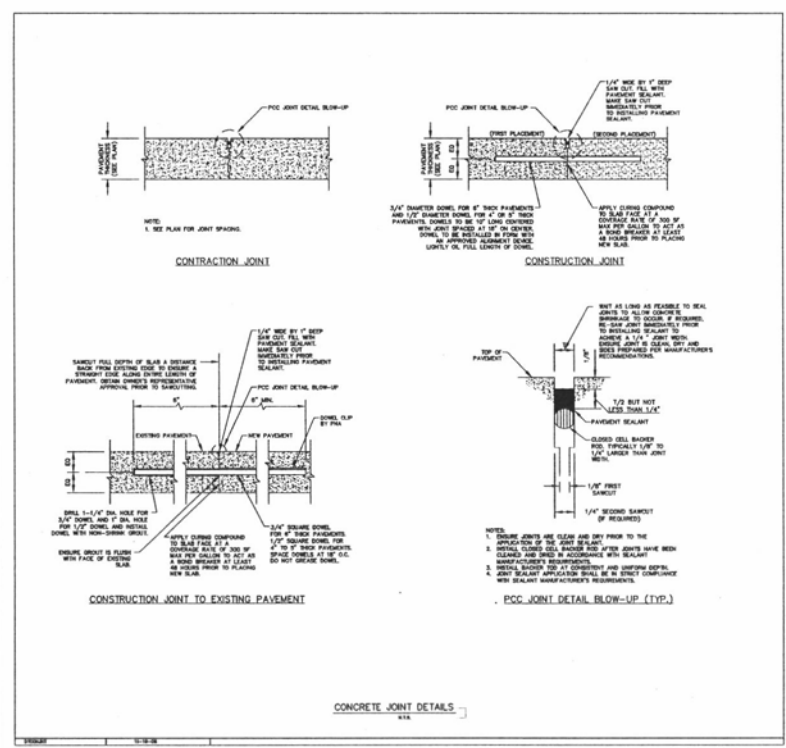
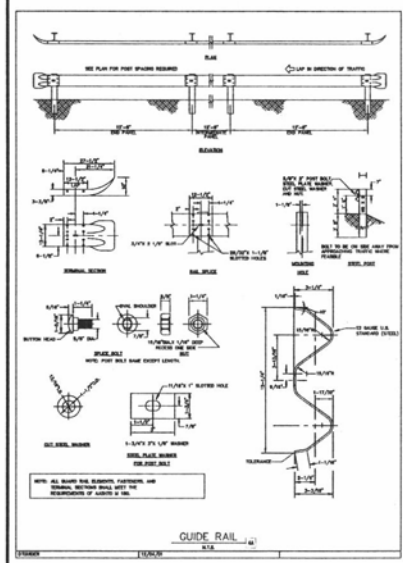
REVISIONS	BY

DRAWN BY: DMV/CRP  
 CHECKED BY: K/JW  
 DATE: 12/09/2010  
 SCALE: NO SCALE  
 JOB NO: 08-140  
 SHEET NUMBER

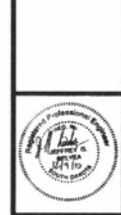
SITE PLAN DETAILS



- GENERAL NOTES:**
- FOR PREPARATION OF FINISHED SURFACE, FULL PLACE WHERE TA BEARDS OF CONCRETE SHALL BE PLACED AT THE JOINTS TO BE KEPT OPEN TO BE BACKFILLED WITH THE MATERIAL'S MAXIMUM STANDARD PROCTOR DRY WEIGHT (ASTM D 1556) FILL. FILL SHALL BE COMPACTED TO A MINIMUM OF 90% OF THE MATERIAL'S MAXIMUM STANDARD PROCTOR DRY WEIGHT.
  - AFTER PROPOUSING WITH A LEANED SHOULDER AND RAMP, ROCK AND REINFORCING DEEP REINFORCING STRUCTURES, THE ENTIRE SURFACE SHALL BE FINISHED TO A FINISH COURSE SHALL BE PER STANDARD PROCTOR DRY WEIGHT (ASTM D 1556).
  - GRAVEL BASE COURSE AGGREGATES SHOULD CONFORM TO THE REQUIREMENTS OF SECTION 802.05, TABLE 1 OF THE SOUTH DAKOTA DOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE" CONSTRUCTION SPECIFICATIONS FOR ROAD AND BRIDGE. 2008 EDITION. COMpressive Strength of 3000 psi at 28 DAYS AND 4" MAXIMUM BLENDED WITH 2" DIAL HOLES.
  - ASPHALT SURFACE COURSE MIXTURE SHOULD BE IN ACCORDANCE WITH CLASS 5 MIXTURES IN SECTION 802.05, AND TABLE 1 OF THE SOUTH DAKOTA DOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE" CONSTRUCTION SPECIFICATIONS FOR ROAD AND BRIDGE. 2008 EDITION. COMpressive Strength of 3000 psi at 28 DAYS AND 4" MAXIMUM BLENDED WITH 2" DIAL HOLES.
  - PAVEMENT DESIGN IS BASED ON A CBR VALUE OF 1.3.
- CONCRETE PAVEMENT GENERAL NOTES:**
- ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE. 2008 EDITION, SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION, STATE OF SOUTH DAKOTA, CONSTRUCTION OF ROADS AND BRIDGE, 2008 EDITION.
  - PORTLAND CEMENT CONCRETE SHOULD HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI WITH A MODULUS OF RUPTURE OF 500 PSI OR MORE.
  - 3" MAXIMUM JOINTS SHOULD BE SPACED AT 10' O.C. MAXIMUM EACH WAY. JOINTS SHOULD EXTEND TO A DEPTH OF 1/2" INTO THE SUBGRADE. JOINTS SHOULD BE USED WHERE PAVEMENT ADJUSTS DRAINAGE STRUCTURES AND BRIDGES.
  - CONSTRUCTION JOINTS SHALL BE UNDERLAIN BY A NON-MOVING JOINT SEPARATOR 1/2" TO PREVENT UNIFORM SPREADING OF SOL FINES THROUGH THE JOINTS.
  - PAVEMENT DESIGN IS BASED ON A CBR VALUE OF 1.3.



**Wolvierton & Associates**  
Consulting Engineers & Land Surveyors  
1010 W. 14th St., Suite 200  
Sioux Falls, SD 57105  
PH: 605.338.2800  
FAX: 605.338.3000  
WWW.WOLVIERTON-ASSOC.COM



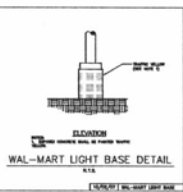
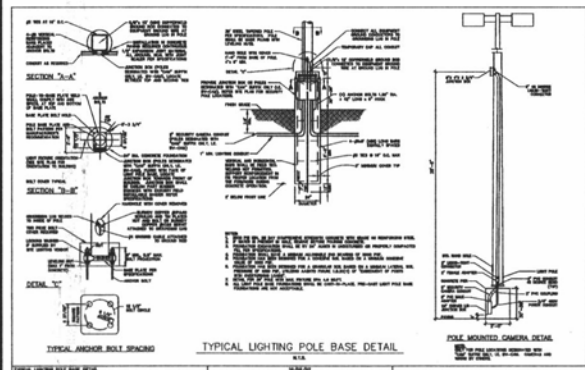
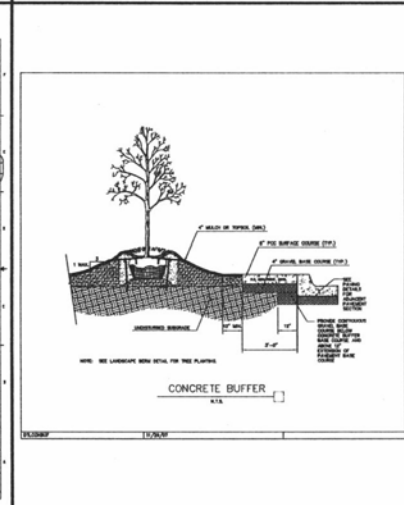
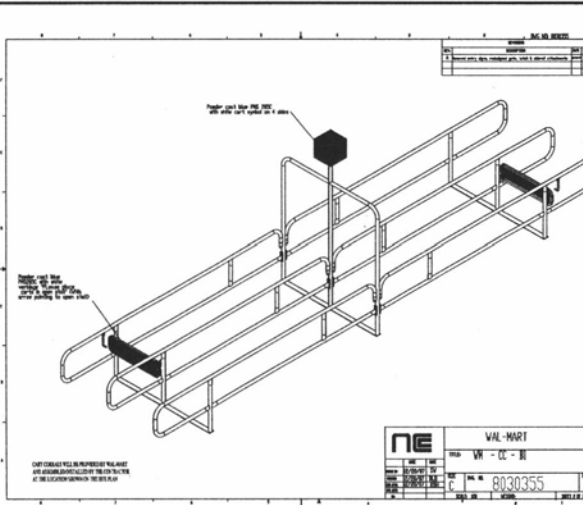
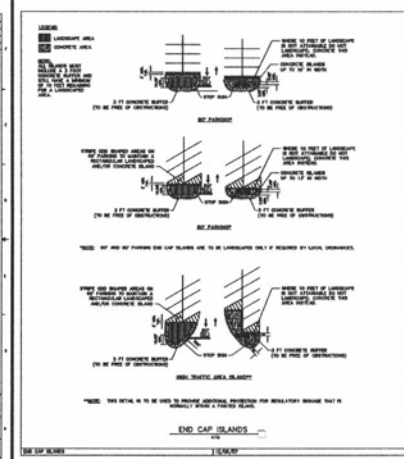
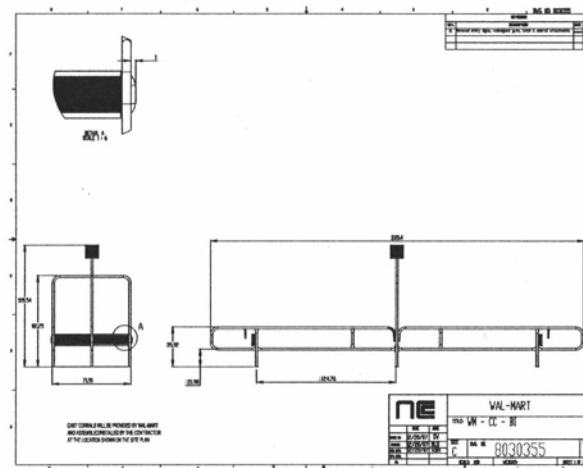
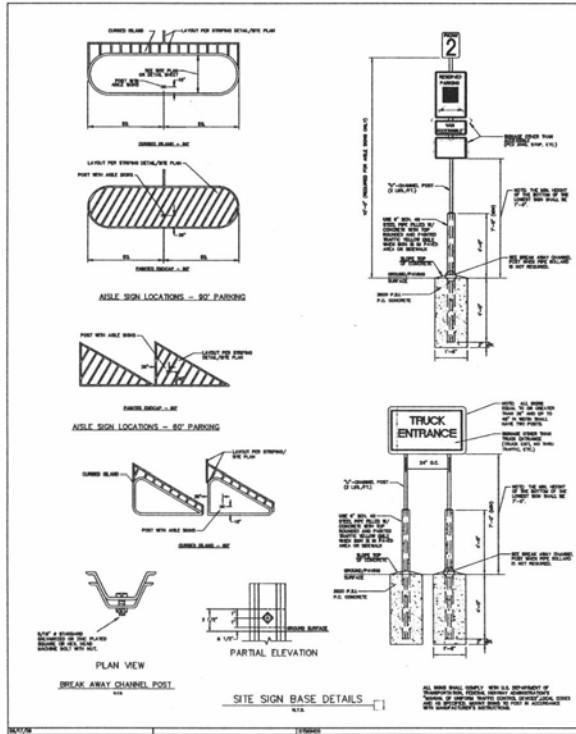
NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

PROPOSED BLACK HILLS CENTER  
Walmart # 3872-03  
RAPID CITY, PENNINGTON COUNTY, S.D.  
BY: THF, STONERIDGE DEVELOPMENT, LLC  
ST. LOUIS, MO

REVISIONS	BY

DRAWN BY: DMN/CRP  
CHECKED BY: KJW  
DATE: 12/09/2010  
SCALE: NO SCALE  
JOB NO: 08-10  
SHEET NO: 10  
**D-1C**  
OF 10 SHEETS

**SITE PLAN DETAILS**



**SITE PLAN DETAILS**

NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

REVISIONS	BY

DRAWN BY DMN/CRP  
 CHECKED BY KJW  
 DATE 12/08/2010  
 SCALE NO SCALE  
 JOB NO. 08-140  
 SHEET NUMBER

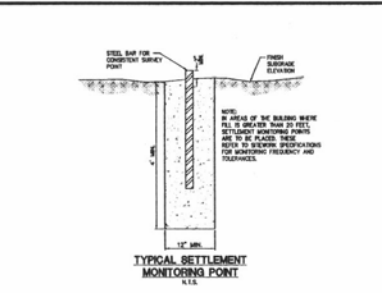
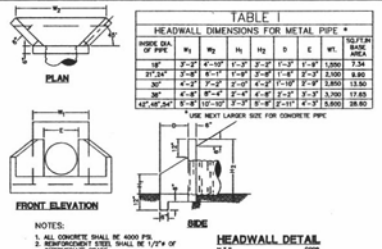
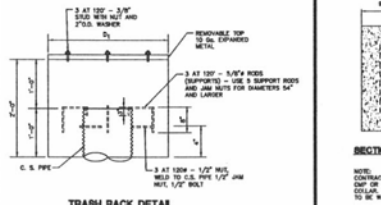
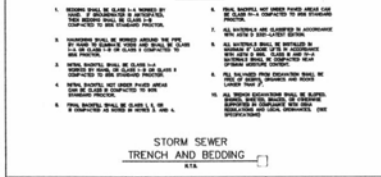
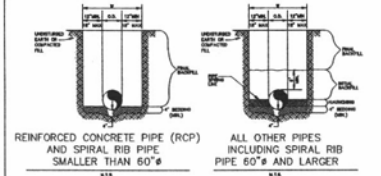
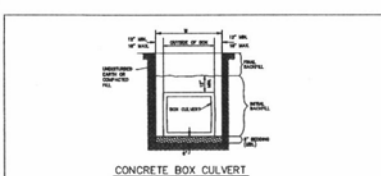
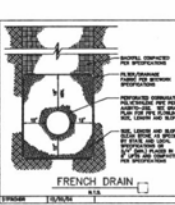
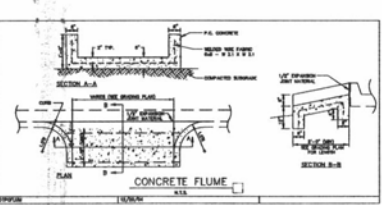
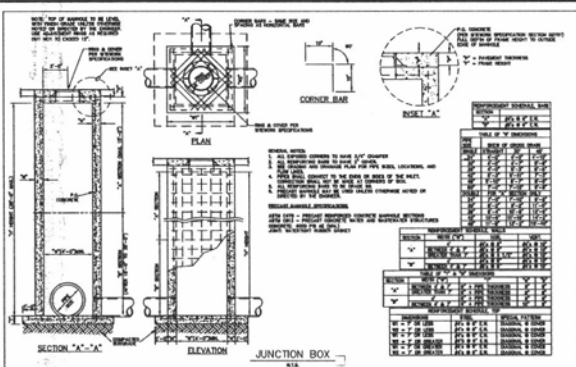
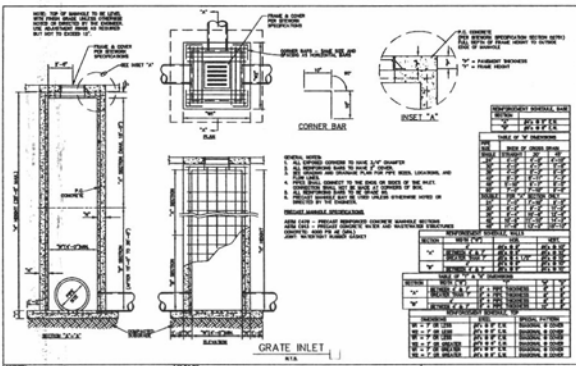
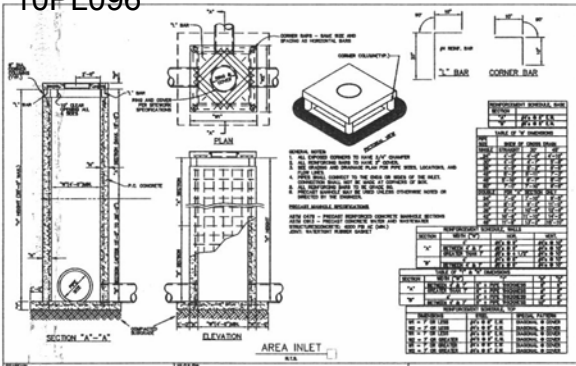
**D-1D**  
 OF SHEETS

PROPOSED BLACK HILLS CENTER  
 Walmart # 3872-03  
 RAPID CITY, PENNINGTON COUNTY, S.D.  
 BY: THF, STONERIDGE DEVELOPMENT, LLC  
 ST. LOUIS, MO



**Wolverton & Associates**  
 Consulting Engineers & Land Surveyors  
 1000 N. University Ave., Suite 200  
 Rapid City, SD 57701  
 Phone: 605.342.2222  
 Fax: 605.342.2222  
 www.wolverton88800.com





GRADING AND DRAINAGE DETAILS

W  
**Wolverton & Associates**  
 Consulting Engineers + Land Surveyors  
 4912 S. Quaker Avenue - Suite 100 - Omaha, Nebraska 68107  
 Phone: 402.491.4000  
 Fax: 402.491.4001  
 www.wolverton.com

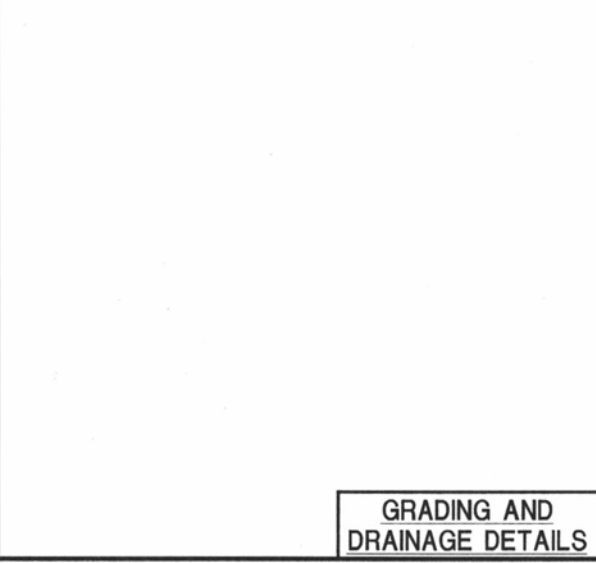
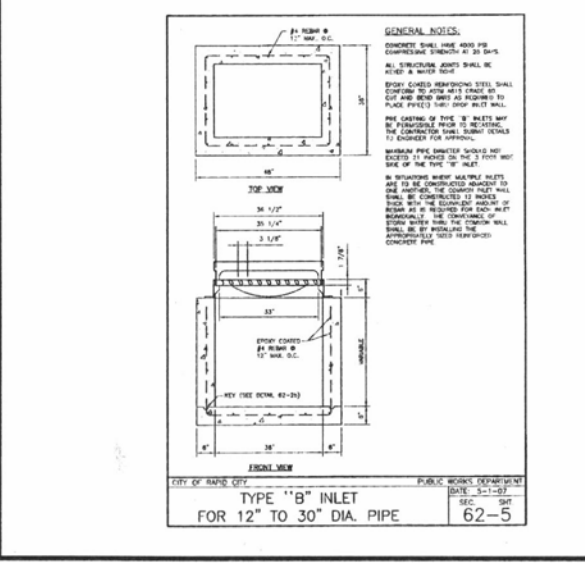
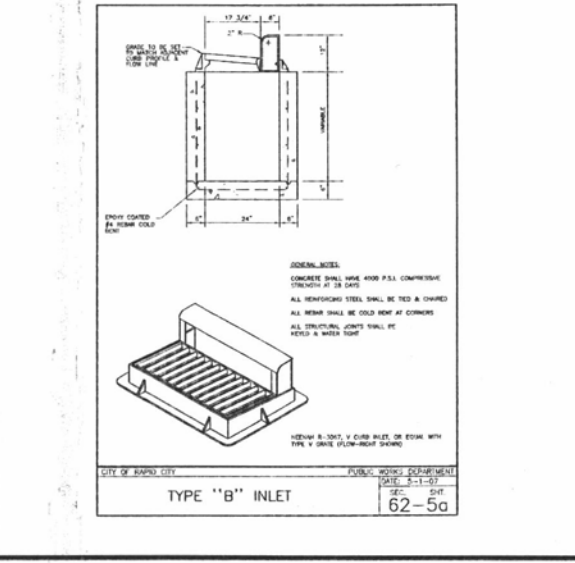
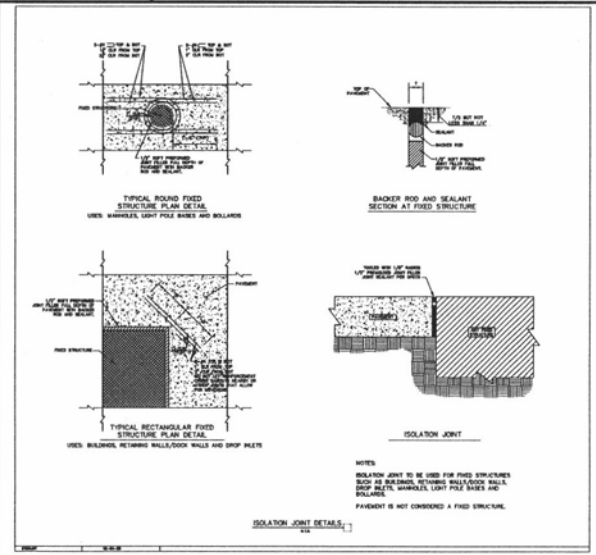
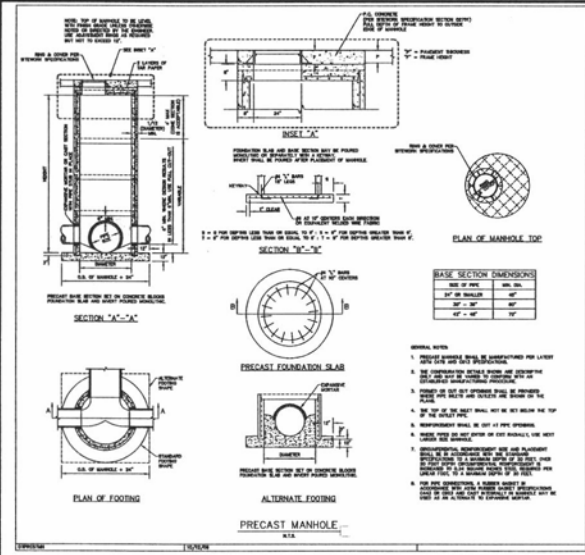
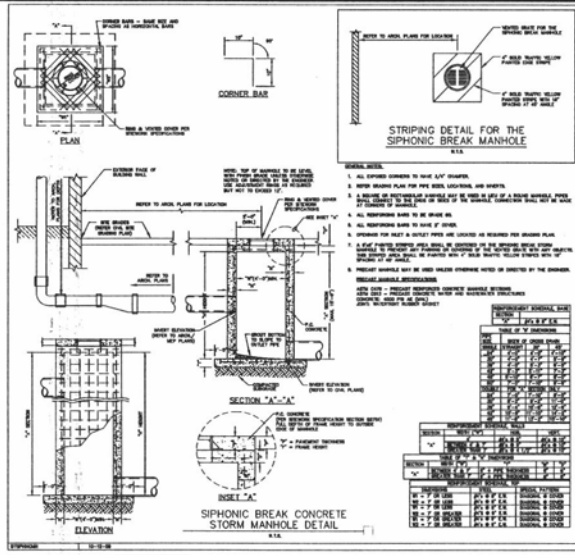


NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

PROPOSED BLACK HILLS CENTER  
 Walmarts # 3872-03  
 RAPID CITY, PENNINGTON COUNTY, S.D.  
 BY: THE STONERIDGE DEVELOPMENT, LLC  
 ST. LOUIS, MO

REVISIONS	BY

DRAWN BY DMN/CRP  
 CHECKED BY K/JW  
 DATE 12/08/2010  
 SCALE NO SCALE  
 JOB NO. 08-140  
 SHEET NUMBER D-2A  
 OF SHEETS



**GRADING AND DRAINAGE DETAILS**

NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

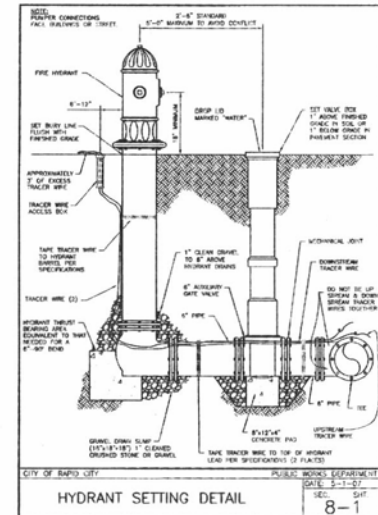
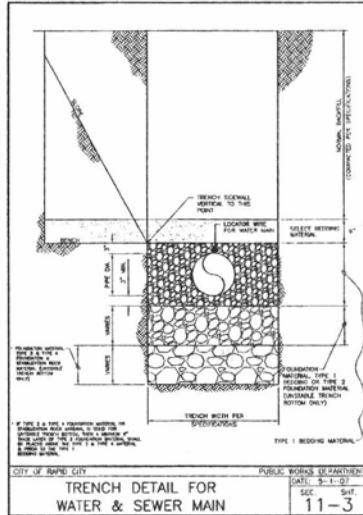
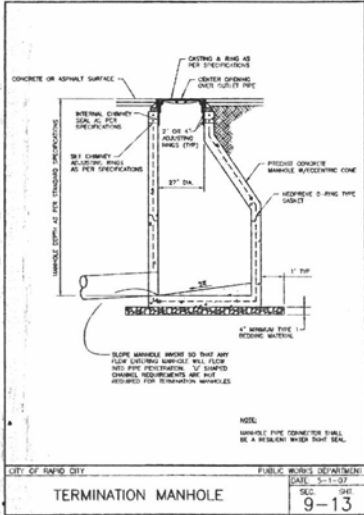
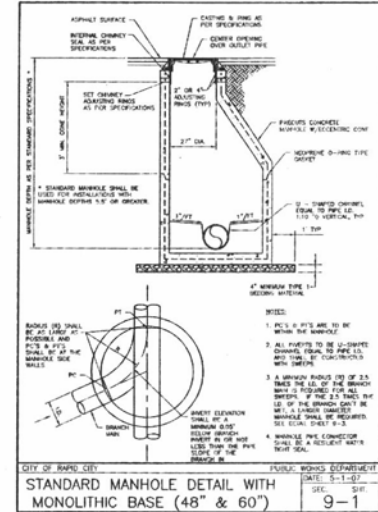
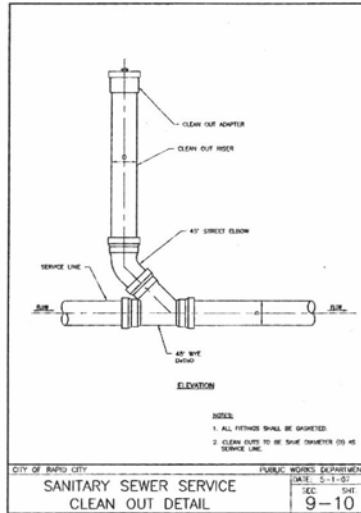
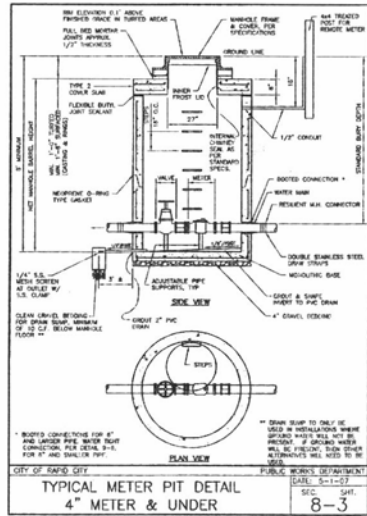
PROPOSED BLACK HILLS CENTER  
Walmart # 3872-03  
RAPID CITY, PENNINGTON COUNTY, S.D.  
BY: THE STONERIDGE DEVELOPMENT, LLC  
ST. LOUIS, MO

REVISIONS	BY

DRAWN BY: DMN/CRP  
CHECKED BY: K/JW  
DATE: 12/09/2010  
SCALE: NO SCALE  
JOB NO: 09-140  
SHEET NUMBER: D-2B  
DATE: 08-14-07

**Wolverton & Associates**  
Land Surveyors  
Professional Engineers  
1414 East 14th Street  
Rapid City, SD 57701  
Phone: 605-372-4222  
Fax: 605-372-4222  
www.wolvertonassociates.com





**Wolverton & Associates**  
 Consulting Engineers & Land Surveyors  
 618 Superior Street, Suite 100, Omaha, Nebraska 68102  
 Phone: 402/342-1200  
 Fax: 402/342-1205  
 www.wolvertonassociates.com

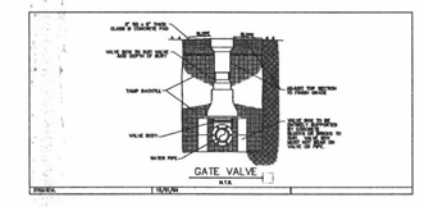
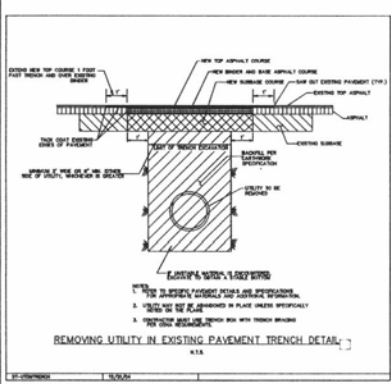
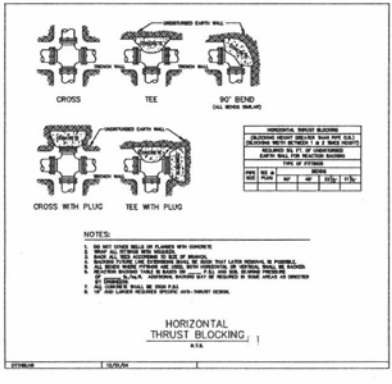
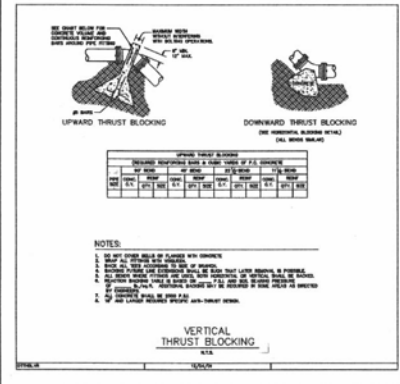
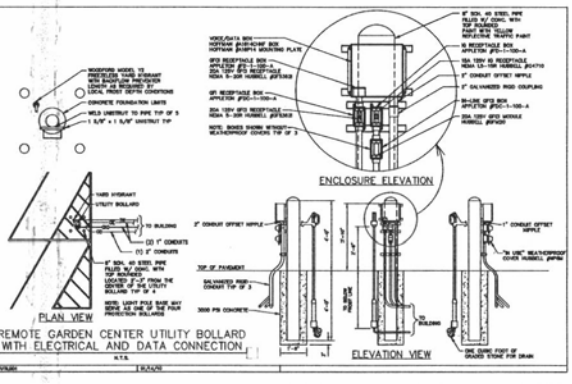
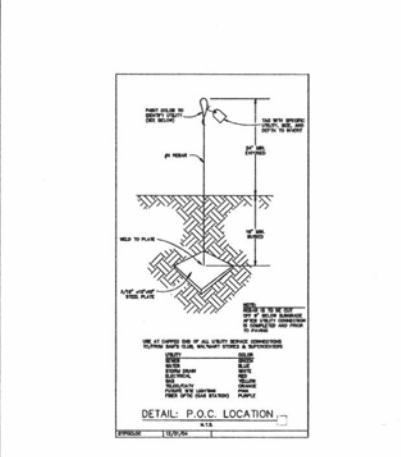
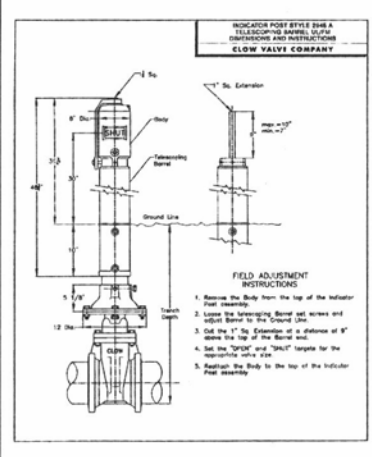
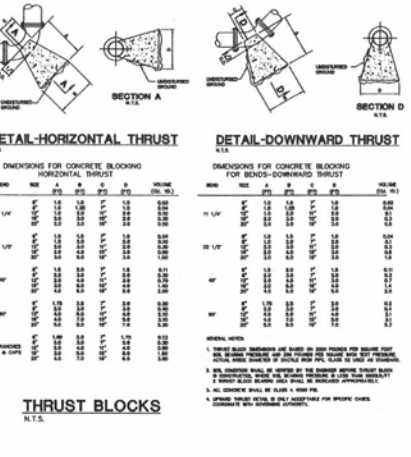
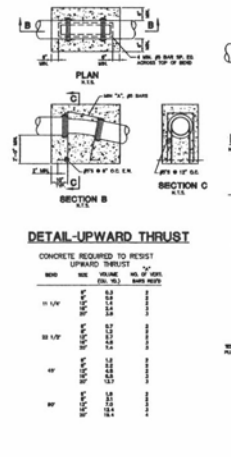
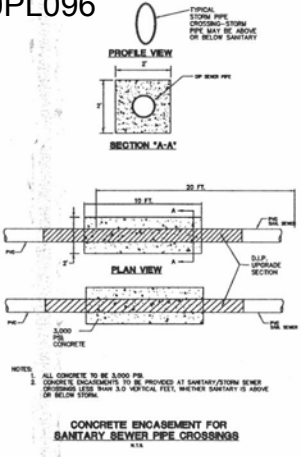


NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

PROPOSED BLACK HILLS CENTER  
 Walnut St. # 3872-03  
 RAPID CITY, PENNINGTON COUNTY, S.D.  
 BY: THF, STONERIDGE DEVELOPMENT, LLC  
 ST. LOUIS, MO

REVISIONS	BY

**UTILITY PLAN DETAILS**



**NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY**

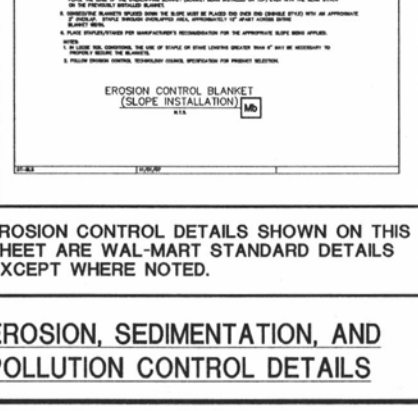
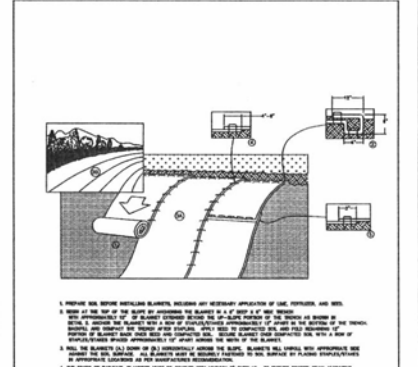
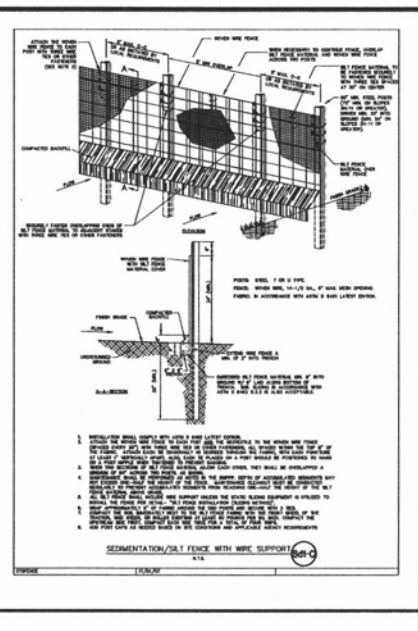
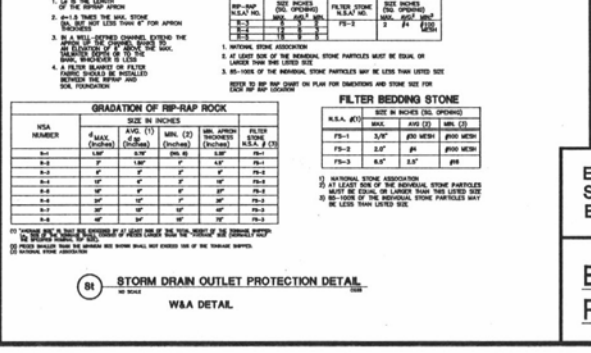
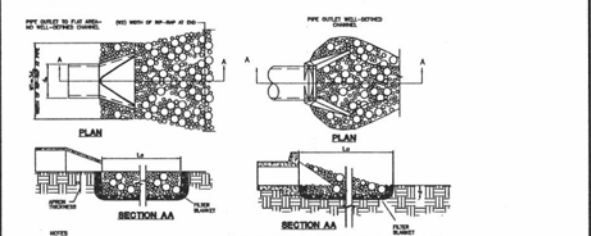
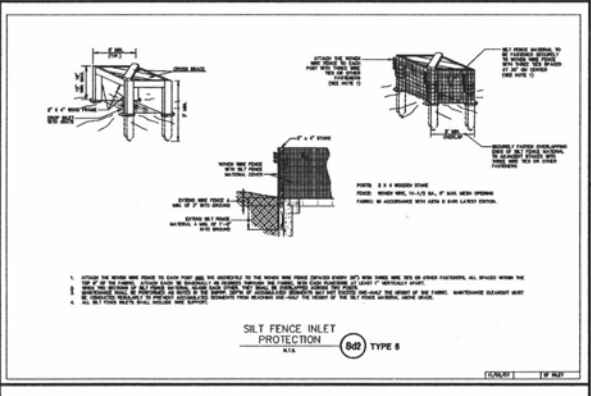
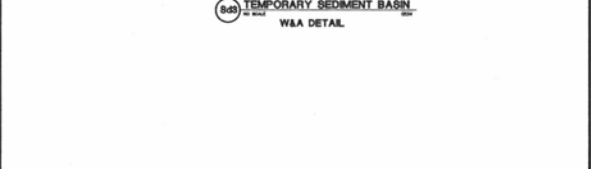
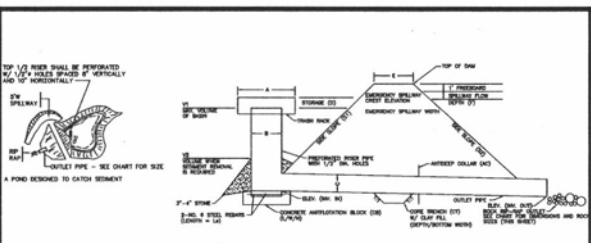
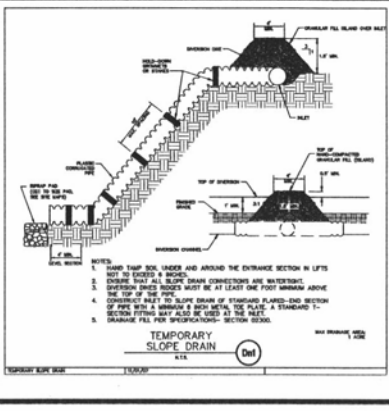
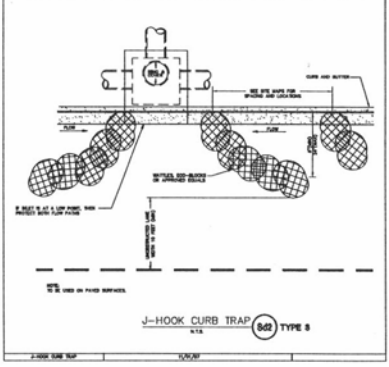
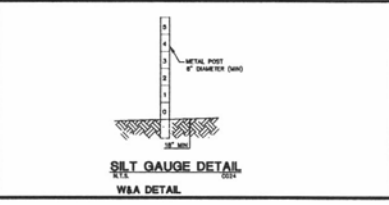
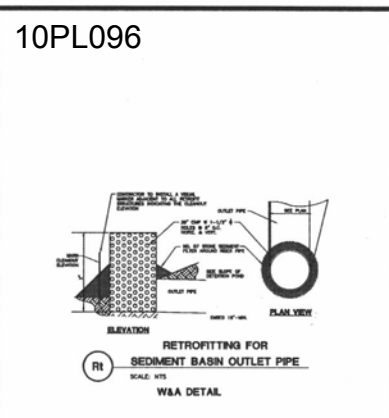
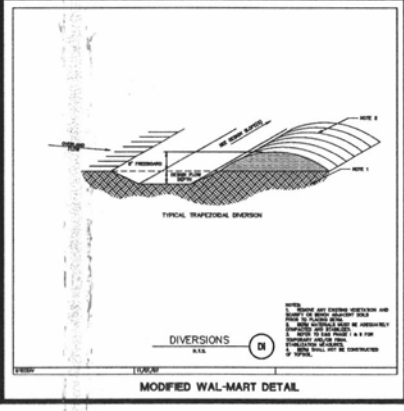
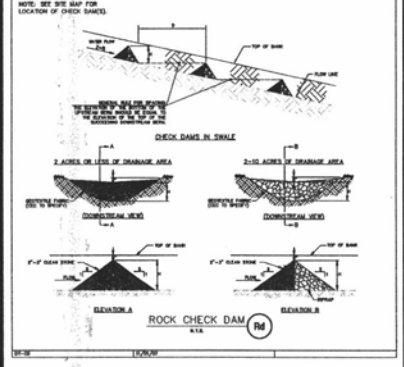
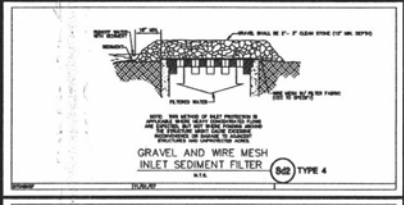
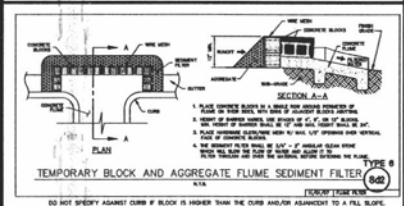
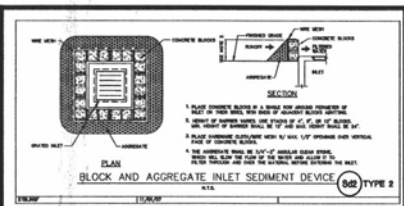
WOLVERTON & ASSOCIATES  
 4112 Highway 100, Suite 100, Dunwoody, Georgia 30088  
 Phone: (770) 404-8888 Fax: (770) 404-8889  
 www.wolverton.com

PROPOSED BLACK HILLS CENTER  
 Walmart # 3872-03  
 RAPID CITY, PENNINGTON COUNTY, S.D.  
 BY: THE STONERIDGE DEVELOPMENT, LLC  
 ST. LOUIS, MO

REVISIONS	BY

DRAWN BY: DMU/CRP  
 CHECKED BY: K.J.W.  
 DATE: 12/09/2010  
 SCALE: NO SCALE  
 JOB NO: 05-140  
 SHEET NUMBER: D-3B  
 OF SHEETS: 08-140 (8 OF 30)

**UTILITY PLAN DETAILS**



NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

PROPOSED BLACK HILLS CENTER  
Walmart # 9872-03  
RAPID CITY, PENNINGTON COUNTY, S.D.  
BY: THF, STONERIDGE DEVELOPMENT, LLC  
ST. LOUIS, MO

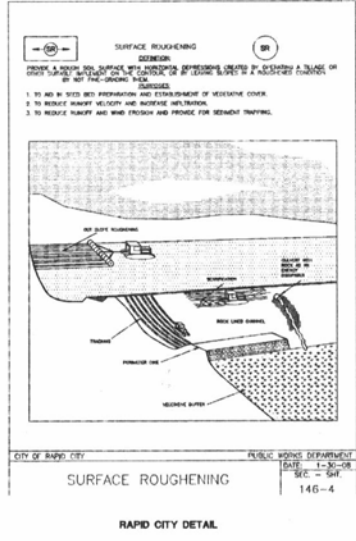
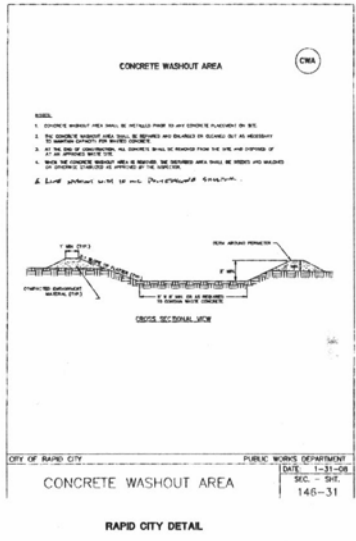
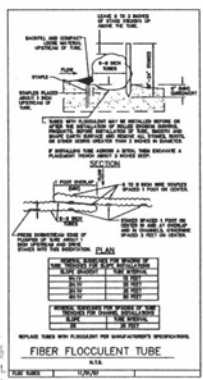
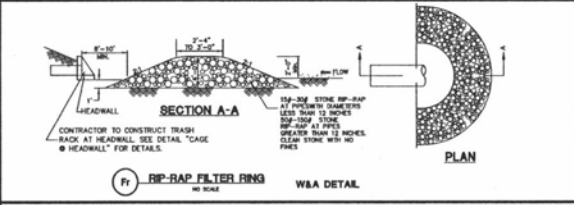
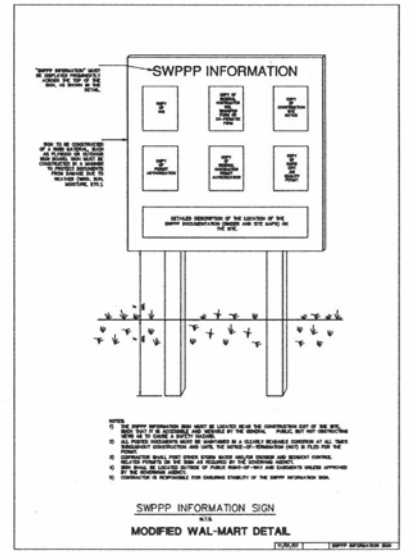
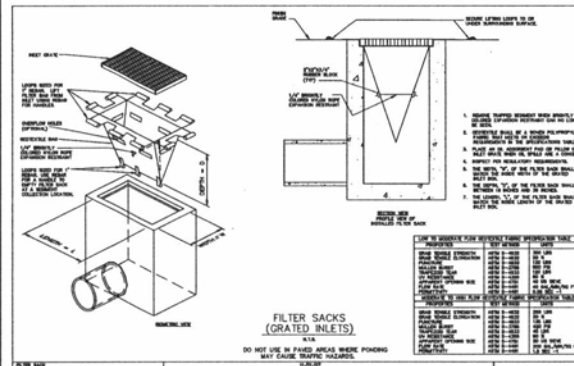
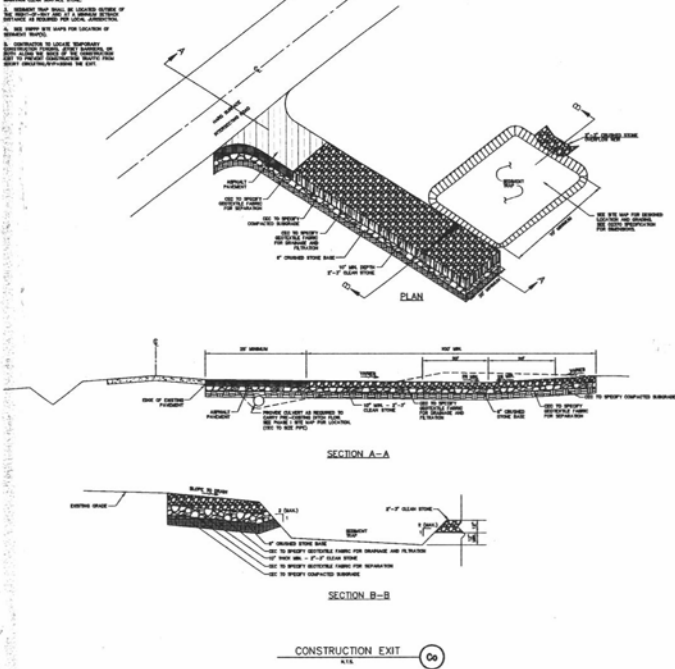
REVISIONS	BY

DRAWN BY: DMV/CRP  
CHECKED BY: K/JW  
DATE: 12/09/2010  
SCALE: NO SCALE  
JOB NO: 08-140  
SHEET NUMBER: 08-140  
D-4A  
OF 08/27

**EROSION, SEDIMENTATION, AND POLLUTION CONTROL DETAILS**

EROSION CONTROL DETAILS SHOWN ON THIS SHEET ARE WAL-MART STANDARD DETAILS EXCEPT WHERE NOTED.

- NOTES:
1. PROVIDE SLOPED SHOULDER ON EXISTING SHOULDER TO THE SIDE NEAREST TO ROADWAY.
  2. FLOOR FINISH SHALL BE CONCRETE SLAB ON GRADE WITH 1/2" SAND FINISH TO MATCH EXISTING SIDEWALK.
  3. SLOPED SHOULDER SHALL BE LOCATED BEYOND THE EXISTING CURB LINE TO PROVIDE A MINIMUM 4' CLEARANCE FROM THE EXISTING CURB LINE.
  4. SEE NOTES ON SHEET 10PL095 FOR CONSTRUCTION OF SLOPED SHOULDER.
  5. SLOPED SHOULDER SHALL BE CONCRETE SLAB ON GRADE WITH 1/2" SAND FINISH TO MATCH EXISTING SIDEWALK.
  6. SLOPED SHOULDER SHALL BE CONCRETE SLAB ON GRADE WITH 1/2" SAND FINISH TO MATCH EXISTING SIDEWALK.



EROSION CONTROL DETAILS SHOWN ON THIS SHEET ARE WAL-MART STANDARD DETAILS EXCEPT WHERE NOTED.

**EROSION, SEDIMENTATION, AND POLLUTION CONTROL DETAILS**

**Wolvertson & Associates**  
 Consulting Engineers & Land Surveyors  
 6145 North Lindbergh Avenue, Suite 200  
 St. Louis, MO 63113  
 Phone: (314) 437-4000  
 Fax: (314) 437-4001  
 www.wolvertson-engineers.com



PROPOSED BLACK HILLS CENTER  
 Wal-Mart # 3872-03  
 RAPID CITY, PENNINGTON COUNTY, S.D.  
 BY: THF, STONERIDGE DEVELOPMENT, LLC  
 ST. LOUIS, MO

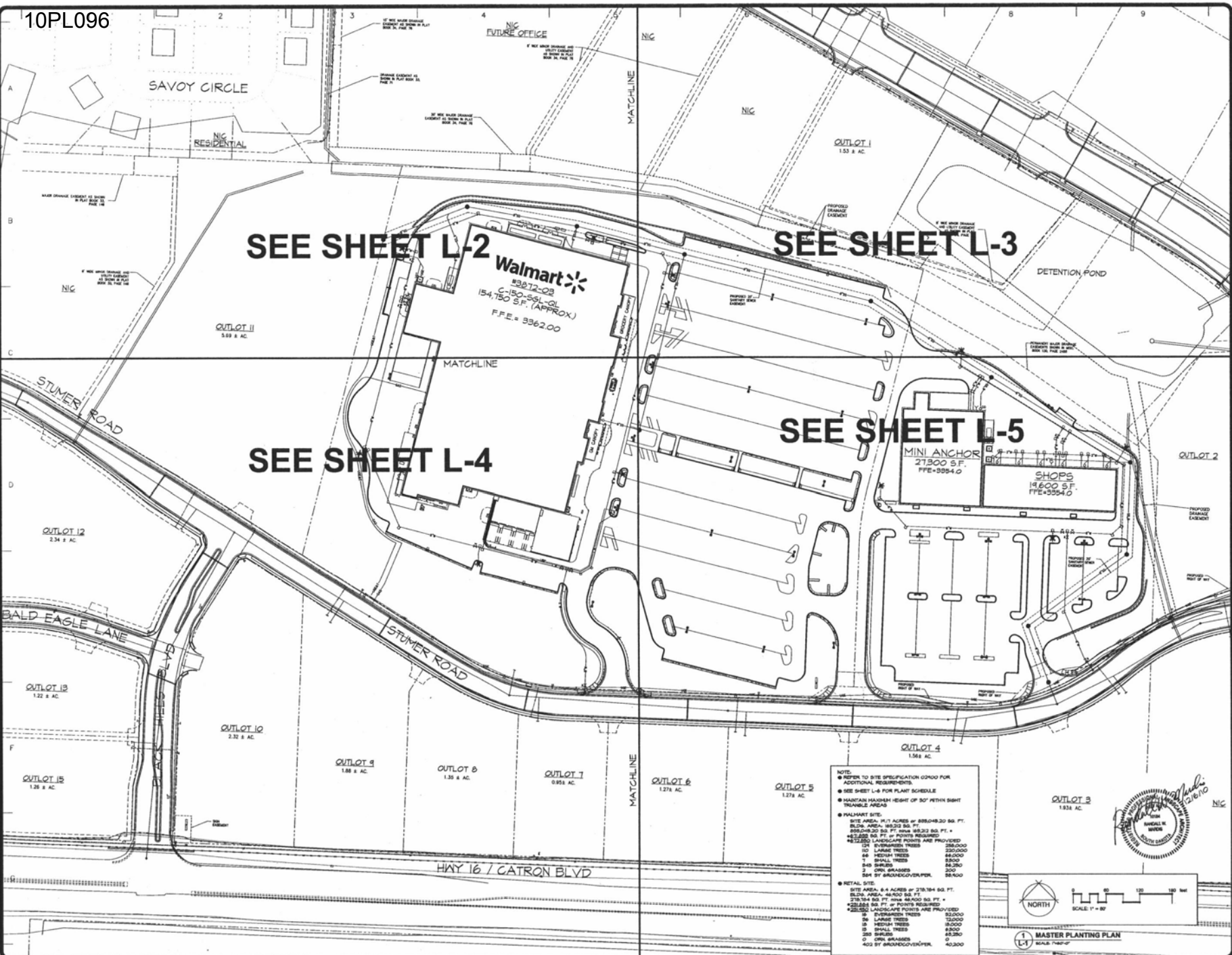
REVISIONS	BY

NOT FOR CONSTRUCTION / PERMIT REVIEW ONLY

DRAWN BY: DMW/CRP  
 CHECKED BY: KJW  
 DATE: 12/09/2010  
 SCALE: NO SCALE  
 JOB NO: 08-140  
 SHEET NUMBER: D-4B  
 OF SHEETS



REVISIONS	BY
4/20/10	RFH
5/28/10	RFH
12/16/10	RFH



SEE SHEET L-2

SEE SHEET L-3

SEE SHEET L-4

SEE SHEET L-5

**Walmart**  
 #3872-03  
 C-190-551-01  
 154,750 S.F. (APPROX.)  
 F.F.E. = 9362.00

**MINI ANCHOR**  
 21,300 S.F.  
 F.F.E. 9354.0

**SHOPS**  
 19,600 S.F.  
 F.F.E. 4354.0

**NOTES:**

- REFER TO SITE SPECIFICATION 02000 FOR ADDITIONAL REQUIREMENTS.
- SEE SHEET L-6 FOR PLANT SCHEDULE
- MAINTAIN MAXIMUM HEIGHT OF 50' PER EIGHT TRIMMABLE TREES
- MAINTAIN SITE.

**WALMART SITE:**

SITE AREA: 6.4 ACRES @ 388,049.30 SQ. FT.  
 BLDG. AREA: 158,232 SQ. FT.  
 278,184 SQ. FT. @ 182.23 SQ. FT. = 1,527,000 SQ. FT. @ POINTS REQUIRED  
 42,550 SQ. FT. @ POINTS REQUIRED

PROVIDED LANDSCAPE POINTS ARE PROVIDED:

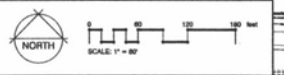
12" EVERGREEN TREES	28,000
10" LARGE TREES	230,000
8" MEDIUM TREES	48,000
6" SMALL TREES	88,000
545 SHRUBS	88,300
2500 PERENNIALS	88,300
504 5' BRONZE GYNERIUM	88,100

**MINI ANCHOR SITE:**

SITE AREA: 6.4 ACRES @ 278,184 SQ. FT.  
 BLDG. AREA: 46,400 SQ. FT.  
 278,184 SQ. FT. @ 182.23 SQ. FT. = 1,527,000 SQ. FT. @ POINTS REQUIRED  
 42,550 SQ. FT. @ POINTS REQUIRED

PROVIDED LANDSCAPE POINTS ARE PROVIDED:

12" EVERGREEN TREES	28,000
10" LARGE TREES	230,000
8" MEDIUM TREES	48,000
6" SMALL TREES	88,000
250 SHRUBS	48,300
1200 PERENNIALS	48,300
400 5' BRONZE GYNERIUM	48,200



MASTER PLANTING PLAN  
 SCALE: 1/8" = 1'-0"

PRELIMINARY PLANTING PLAN FOR THE PROPOSED  
**Black Hills Center**  
 WAL-MART #3872-03  
 RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA

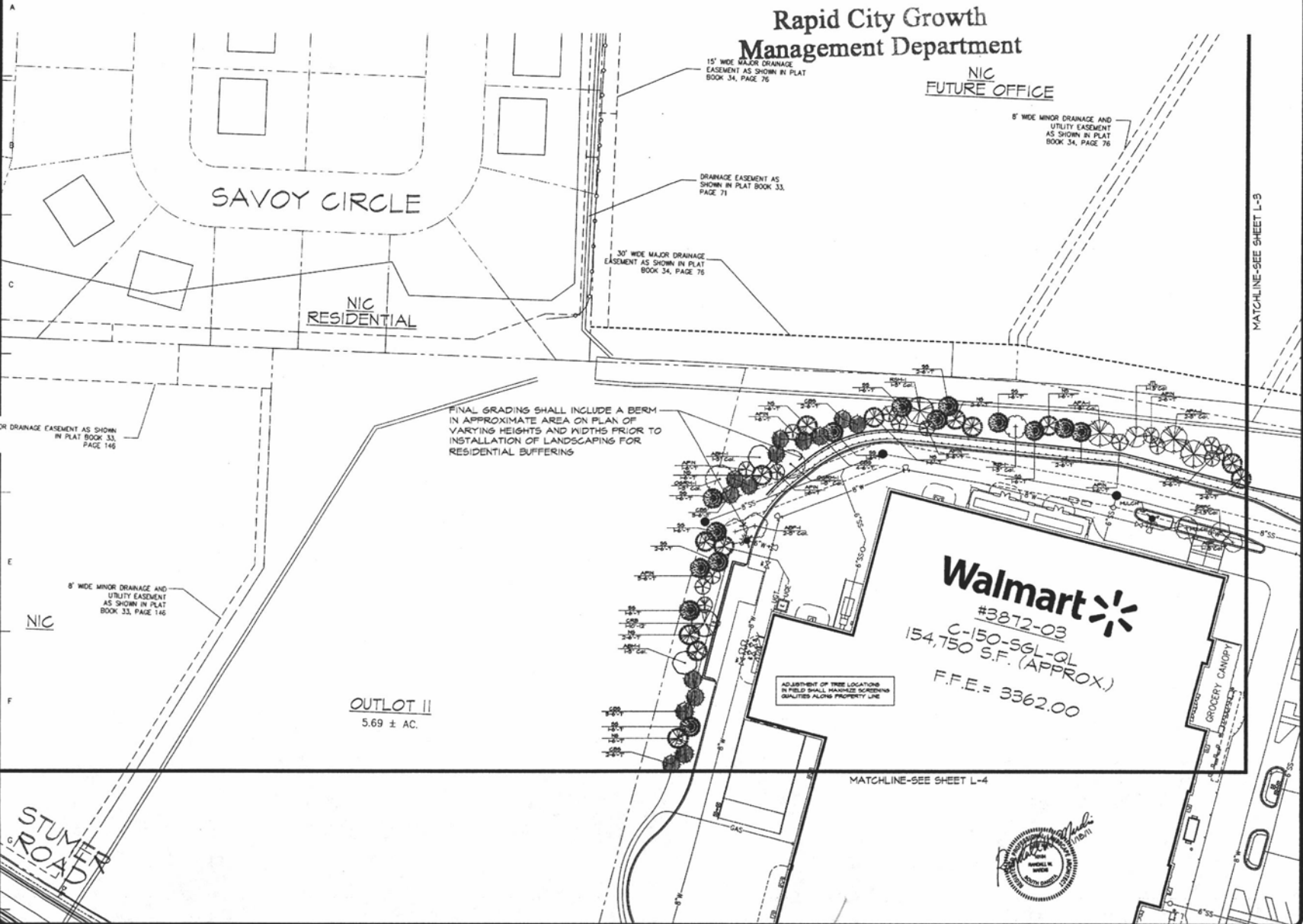
DRAWN BY: RFH  
 CHECKED BY: RFH  
 DATE: 4/20/10  
 SHEET  
**L-1**  
 OF EIGHT SHEETS



JAN 19 2011

Rapid City Growth Management Department

NIC FUTURE OFFICE



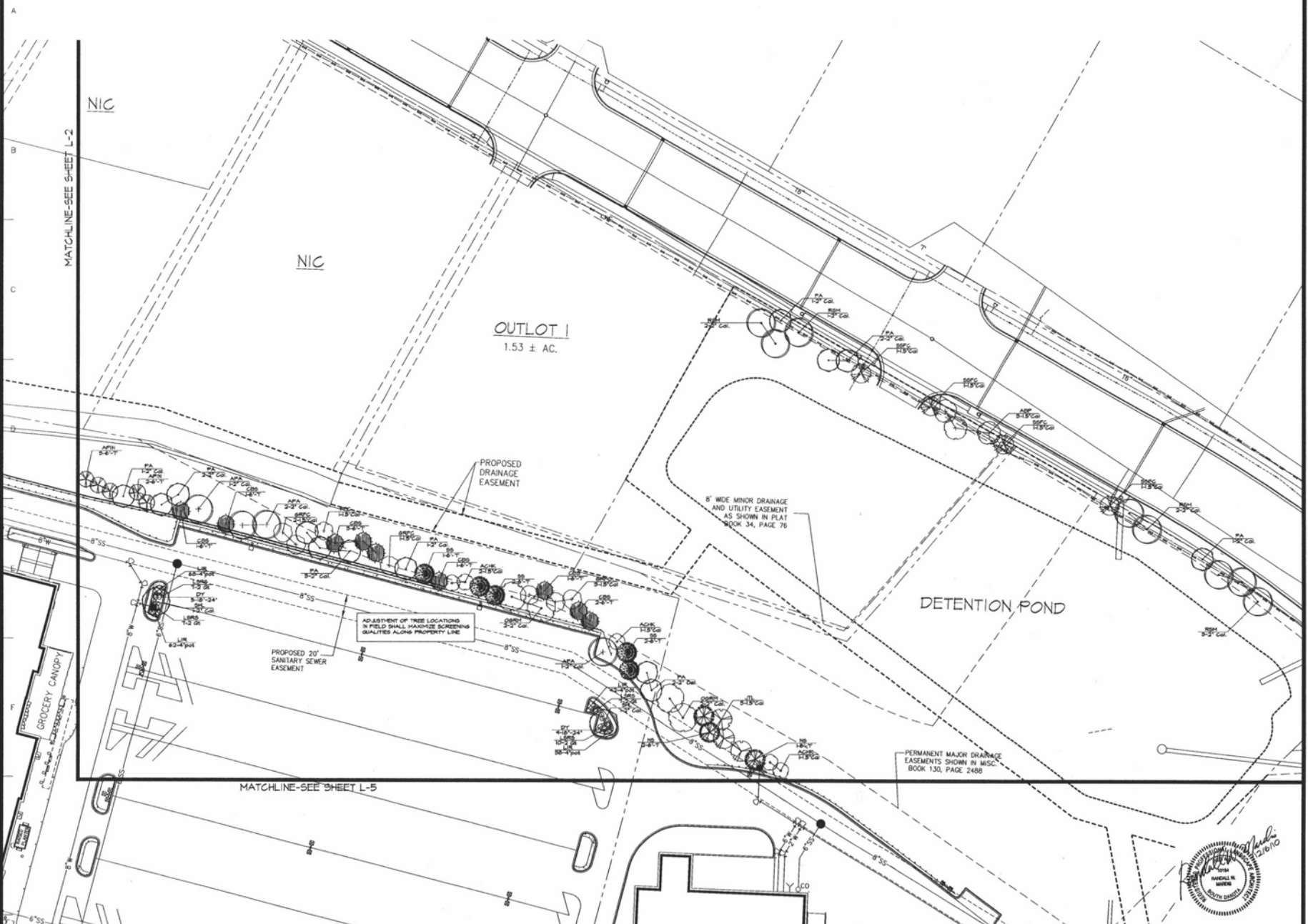
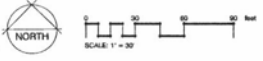
REVISIONS	BY
4/20/10	RPB
5/26/10	RPB
12/16/10	RPB
1/28/11	RPB

**landscape TECHNOLOGIES**  
 11. Columbia, Missouri 65212-2800  
 P.O. Box 2800  
 800.875.6274 Fax: 816.271.2800  
 8000 S. DAWSON AVE. SUITE 400

PRELIMINARY PLANTING PLAN FOR THE PROPOSED  
**Black Hills Center**  
 WAL-MART #3872-03  
 RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA

DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 DATE: 1/19/11  
 SCALE: 1"=30'-0"  
 2008-10-16  
 SHEET  
**L-2**  
 OF 2 SHEETS





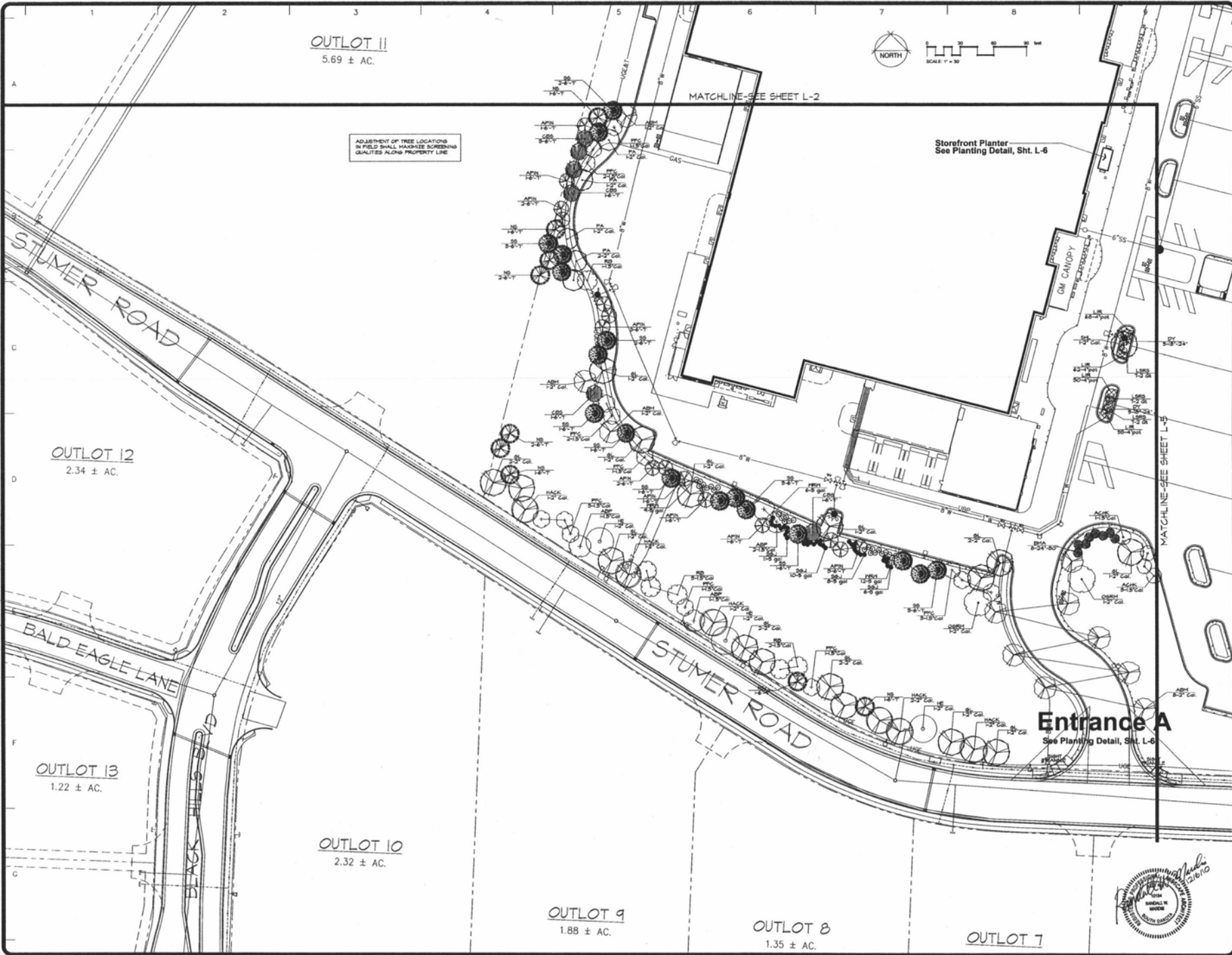
REVISIONS	BY
4/20/10	RWH
5/28/10	RWH
12/8/10	RWH



PRELIMINARY PLANNING PLAN FOR THE PROPOSED  
**Black Hills Center**  
 WAL-MART #3872-03  
 RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA

DRAWN & CHECKED  
 DATE 5/10/10  
 SCALE 1"=20'-0"  
 JOB NO. 1000-04  
 SHEET  
**L-3**  
 OF EIGHT SHEETS





REVISIONS	BY
4/25/10	RWH
5/26/10	RWH
12/8/10	RWH

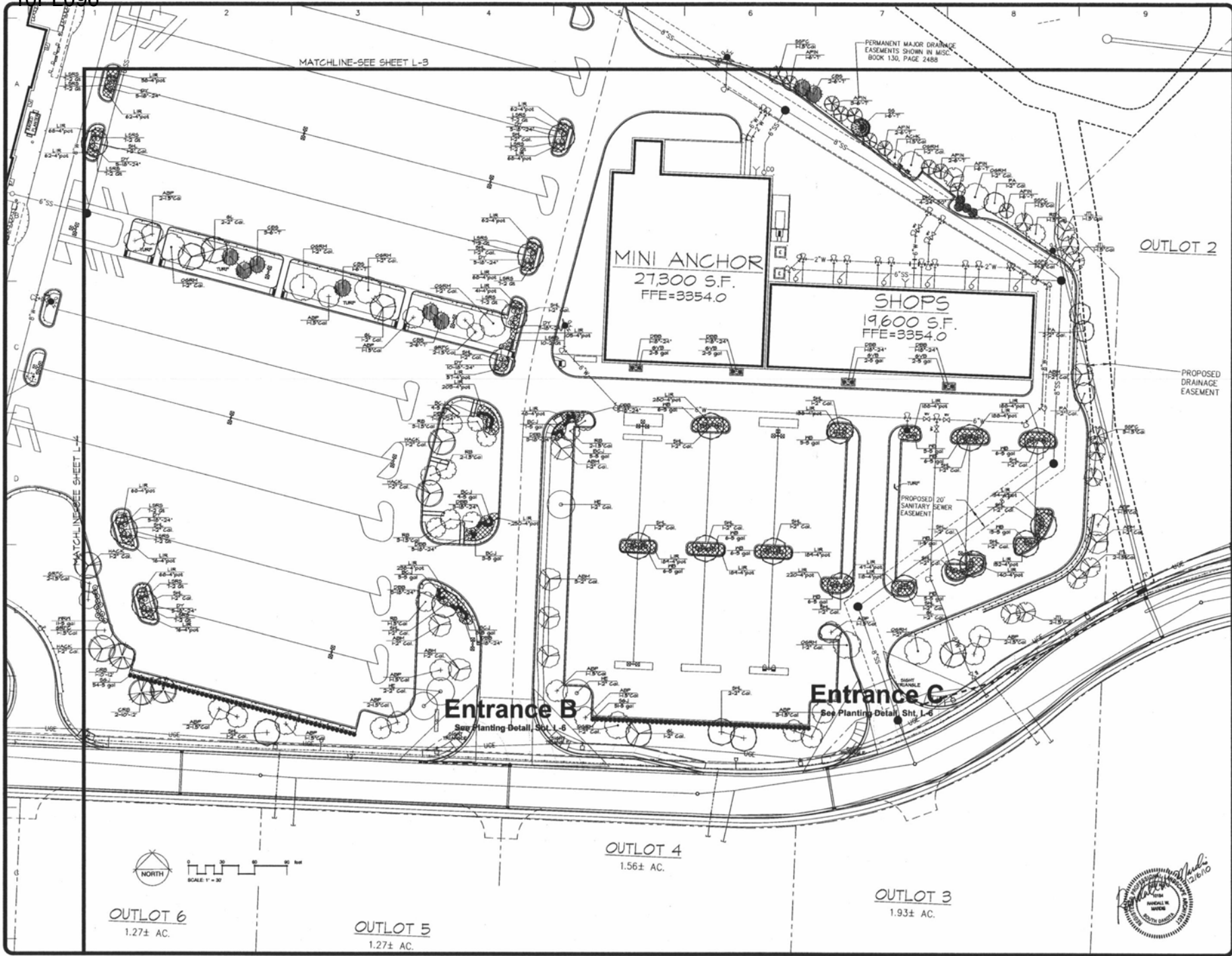
*landscape*  
**TECHNOLOGIES**

1000 S. GARDNER, RAPID CITY, SD 57701  
P: 605.342.2265  
F: 605.342.2266  
WWW.LANDSCAPETECHNOLOGIES.COM

PRELIMINARY PLANTING PLAN FOR THE PROPOSED  
**Black Hills Center**  
WAL-MART #3872-03  
RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA

DESIGNED BY	RWH
CHECKED BY	RWH
DATE	12/16/10
SCALE	1/8" = 1'-0"
JOB NO.	2010-108
SHEET	L-4





REVISIONS	BY
4/20/10	KW/1
5/26/10	KW/1
12/8/10	KW/1

**landscape**  
**TECHNOLOGIES**

1700 13th Street, Suite 200  
Rapid City, SD 57701  
Phone: (605) 342-2800  
Fax: (605) 342-2805  
www.landscape-technologies.com

PRELIMINARY PLANTING PLAN FOR THE PROPOSED  
**Black Hills Center**  
WAL-MART #3872-03  
RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA

DRAWN BY: *[Signature]*  
CHECKED BY: *[Signature]*  
DATE: 2/16/10  
SCALE: 1/32" = 1'-0"  
JOB NO: 2009-04  
SHEET  
**L-5**  
OF 54/57 SHEETS



LANDSCAPE GUIDELINE SPECS:

- GENERAL:**
- 1) All natural vegetation shall be maintained where it does not interfere with construction or the permanent plan of operation. Every effort possible shall be made to protect existing structures.
  - 2) All excavation from drainage ditches to prevent existing structures at all times protect all materials and structures against any to public.
  - 3) All work shall be performed by professional landscaper or contractor who either shall related work being performed by other contractors under to professional drawings for further coordination of work to be done.
  - 4) All underground facilities, structures and utilities must be considered prior to any excavation. The contractor shall be responsible for the location of all utilities and structures prior to excavation. If the contractor is not sure of the location of any utilities or structures, it shall be the contractor's responsibility to locate them prior to excavation.
  - 5) All plant material shall be planted in the same relationship to the grade as was given in nursery conditions. All planting beds shall be established to a depth minimum and graded smooth immediately before planting of plants. Plant groundcover to within 12" of trunk of trees or shrubs planted within the area.
  - 6) It shall be the landscape contractor's responsibility to:
    - A) Verify all dimensions and proposed features shown on the drawings prior to commencement of work.
    - B) Report all discrepancies found with regard to existing conditions or proposed design to the Landscape Architect immediately for a decision.
    - C) Obtain the location of all proposed plant material and obtain the approval of the owner's representative or Landscape Architect prior to installation.
  - 7) Items shown on the drawings that are not indicated on the material list shall be the contractor's responsibility to locate and specify the quantity and conditions prior to installation. No substitutions of types or size of plant material will be accepted without written approval from the landscape architect.
  - 8) Provide single-stem trees unless otherwise noted in plant schedule.
  - 9) All plant material shall comply with the recommendations of ANSI Z601 "American Standards for Nursery Stock".
  - 10) It shall be the contractor's responsibility to provide for inspection of the plant material by the Landscape Architect prior to acceptance. Plants not conforming exactly to the plant list will not be accepted and shall be replaced at the landscape contractor's expense.
  - 11) All bids are to have all prices listed. The Owner has the option to delete any portion of the contract prior to signing the contract or accepting work. The contractor will not be compensated for any work not performed.
  - 12) All plant material to be transplanted shall be transplanted according to guidelines set by ANSI standards. Transplanted material will not be guaranteed by the landscape contractor.

- MULCH:**
- 1) All mulch to be shredded oak bark mulch at 4" depth (after compaction) unless otherwise noted. Mulch shall be clean and free of all foreign materials, including rocks, wood, decorative materials, etc.
  - 2) Edge all beds with black vinyl edge where any turf meets planting beds. Provide alternate price for temporary edging in lieu of vinyl edge.

- TOPSOIL:**
- 1) Topsoil mix for all proposed landscape plantings shall be five (5) parts rich brown forested organic topsoil to one (1) part Canadian sphagnum peat moss as per planting schedule. Ratio shall be based on a depth of 6" mixed with grade smooth.
  - 2) Provide a soil analysis, as requested, made by an independent soil-testing agency within the 60 days of contract award. Fertilizer, water, and other materials, pH and nutrient content.
  - 3) Any foreign material used shall be free of rocks, stumps, weeds, brush, stones (larger than 7/8"), glass or any other extraneous or toxic material.

- LANDSCAPE CONTRACTOR TO VERIFY PRE-EXISTING UTILITIES TO ALL PLANTING BEDS UPON COMPLETION OF PLANTING OPERATIONS AND BEFORE APPLICATION OF SHREDDED BARK MULCH.**

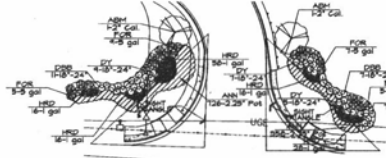
- MISC. MATERIAL:**
- 1) Provide stakes and deadman of sound, non hardwood, free of knots and defects.
  - 2) Tree wrap tape shall be 4" minimum, designed to prevent borers, damage and other freezing. Additionally, only fly-tying material shall be used.

- MAINTENANCE:**
- 1) Landscape Contractor shall provide a separate proposal to maintain all plants, shrubs, groundcover, perennials and annuals for a period of 12 months after acceptance.
  - 2) Contractor shall ensure that any computers and trained personnel shall provide such services and that such services be provided in a timely manner.

- ADDITIONAL XERISCAPE NOTES:**
- 1) All landscaped areas are to receive a minimum of 4" topsoil. See 2400 Specification.
  - 2) All plant material shall be healthy, vigorous and free of pests and diseases.
  - 3) All plant material shall be container grown or balled and wrapped as indicated in the plant schedule.
  - 4) All trees shall have a straight trunk and full head and meet all requirements for the approval of the Landscape Architect before being installed.
  - 5) All trees shall be spaced and staked as shown in the planting details.
  - 6) All planting areas shall be completely mulched as specified in the plant schedule.
  - 7) Prior to construction, the contractor shall be responsible for locating all underground utilities and shall avoid damage to all utilities during the course of the work. Location of existing buried utilities shown on the plans are based upon best available information and are to be considered approximate. It shall be the responsibility of the contractor to:
    - A) Verify the locations of utility lines adjacent to the work area.
    - B) Report any of the utility lines during construction and B) report any and all damage to utilities, structures, site improvements, etc. that occur as a result of the construction.
    - C) Obtain the location of all proposed plant material and obtain the approval of the owner's representative or Landscape Architect prior to installation.
  - 8) The contractor shall be responsible for delivery schedule and protection between delivery and planting per specifications to maintain healthy plant conditions.
  - 9) Any plant material which is damaged, diseased, dead or rejected prior to substantial completion shall be promptly removed from the site and replaced with material of the same species, quantity and size and meeting all plant list specifications.
  - 10) The contractor shall completely guarantee all plant material for a period of 12 months after the normal planting season.
  - 11) After being dug at the nursery source, all trees in leaf shall be acclimated for one (1) month under a mist system prior to installation.
  - 12) Standards set forth in "American Standard for Nursery Stock" represent minimum specifications only and shall constitute minimum quality requirements for plant material.
  - 13) Plants shown on the plans and details, planting beds are to be harvested in a sustainable manner to a minimum depth of four (4) inches.
  - 14) The contractor shall be responsible for the location of all utilities and structures prior to excavation.
  - 15) All plant material quantities shown are approximate. Contractor shall be responsible for complete coverage of all planting beds at each work stop.
  - 16) The plan is to be implemented cooperatively with SWPPP plan as needed to minimize the effectiveness of the SWPPP plan for the site. The contractor is encouraged to complete temporary or permanent seeding or sodding if erodes for soil stabilization in areas not compiled after grading.
  - 17) The plan does not present any temporary installation required as part of the SWPPP plan.

- TURF:**
- 1) Place 1/2" x 1/4" mesh strip of steel wire net adjacent to ground surfaces including sidewalks, curbs, walls, drainage structures and exterior pavements as shown on the drawings. Controlling surface water running downhill or side slope on bare soil.
  - 2) All soil shall be set at an uniform thickness of 1/2" to create a uniform irregular planes or lawn pieces will be accepted.
  - 3) All soil shall be placed a minimum of 24 hours after harvesting.
  - 4) Recondition existing lawn areas damaged by Contractor's operations including equipment and storage and implement all vehicles.
  - 5) All disturbed lawn areas to be seeded or sodded with Turf-Type Grass. Lawn areas shall be immediately reseeded for a period of 90 days from date of final acceptance. Sod a grass more than one square foot per any 50 square feet shall be replaced.

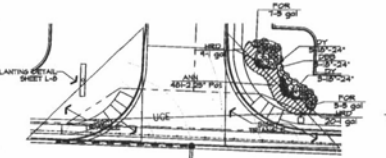
- WARRANTY:**
- 1) All plant material (excluding ground cover, perennials and annuals) are to be warranted for a period of 12 months after installation at 100% of the related price.
  - 2) Any plant material found to be defective shall be removed and replaced within 90 days of notification or in growth season determined to be best for that plant.
  - 3) Only one replacement per tree or shrub shall be required at the end of the warranty period, unless loss is due to failure for any other reasons.
  - 4) Lawn establishment period will be in effect once the lawn has been mowed three times. Plant establishment period shall commence on the date of acceptance and 100% completion.



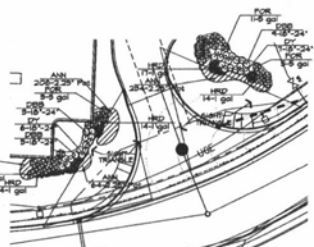
Entrance A  
Scale: 1"=8' 0"



Wai Mart  
Storefront Planter  
Scale: 1"=8' 0"



Entrance B  
Scale: 1"=8' 0"



Entrance C  
Scale: 1"=8' 0"

PLANT SCHEDULE:

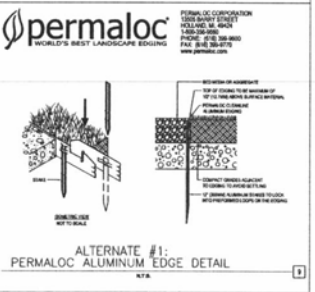
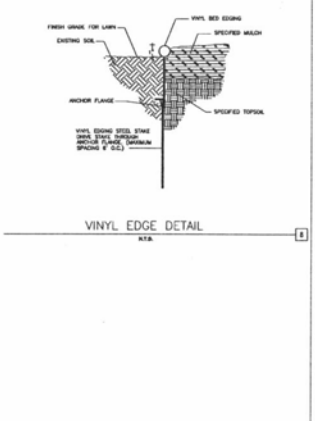
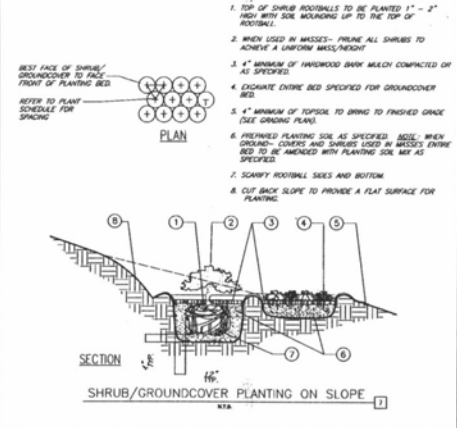
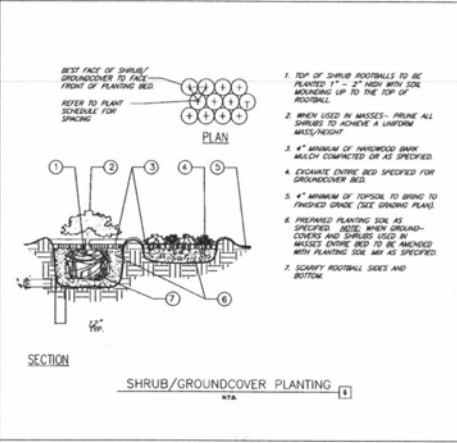
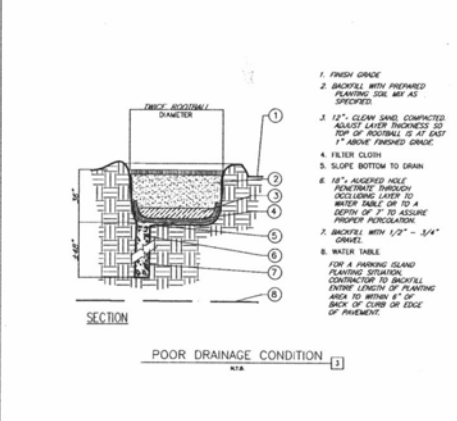
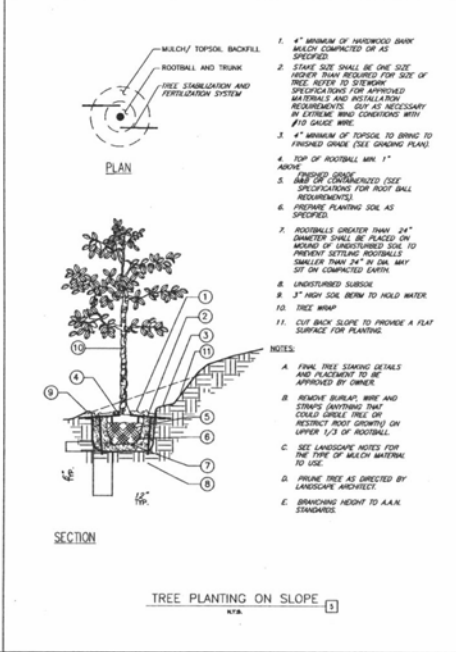
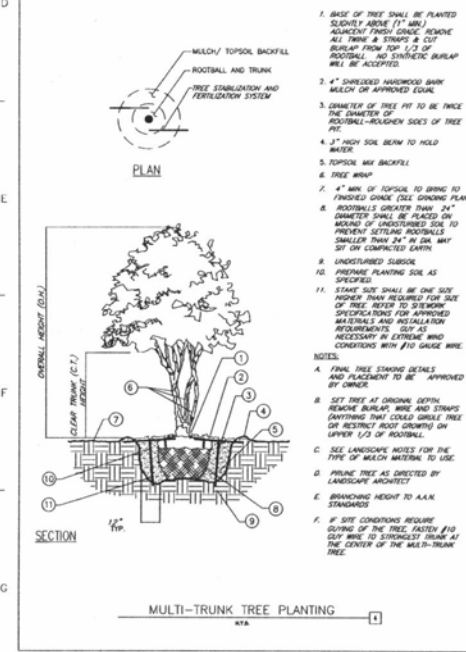
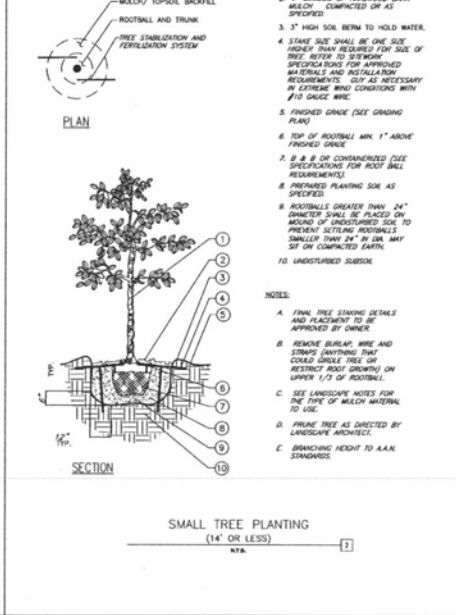
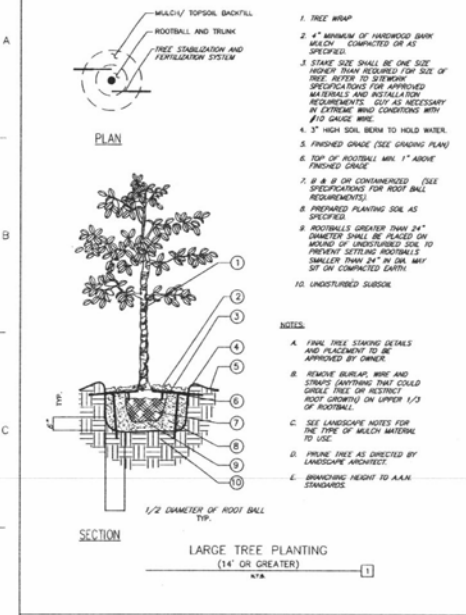
TREES	Quantity	Botanical/Common	Size
OGRM	7	Acer rubrum 'October Glory' / 'October Glory' Maple	2" Cal.
ABM	6	Acer x freemanii 'Jeffersred' / Autumn Blaze Maple	2" Cal.
PA	4	Fraxinus pennsylvanica 'Patmore' / 'Patmore' Ash	2" Cal.
SHL	15	Gleditsia tricanthos 'Skyline' / 'Skyline' Locust	2" Cal.
GL	2	Tilia cordata 'Greenspire' / Greenspire Littleleaf Linden	2" Cal.
HE	2	Ulmus 'Homestead' / Homestead Elm	2" Cal.
EVERGREEN TREES	Quantity	Botanical/Common	Size
NS	3	Picea abies / Norway Spruce	6'-7'
SS	1	Picea omorika / Serbian Spruce	6'-7'
CBS	2	Picea pungens 'Glauca' / Colorado Blue Spruce	6'-7'
APIN	10	Pinus nigra / Austrian Pine	6'-7'
FLOWERING TREES	Quantity	Botanical/Common	Size
RB	3	Cercis canadensis / Redbud	1.5" Cal
SSFC	6	Malus 'Spring Snow' / Spring Snow Flowering Crab	1.5" Cal
ACHK	3	Prunus maackii / Amur Chokecherry	1.5" Cal
ABP	9	Pyrus calleryana 'Autumn Blaze' / Autumn Blaze Pear	1.5" Cal
ITL	9	Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	1.5" Cal
SHRUBS	Quantity	Botanical/Common	Size
WB	81	Buxus microphylla 'Wintergreen' / Wintergreen Boxwood	5 gal
GVB	8	Buxus 'Green Velvet' / Green Velvet Boxwood	5 gal
DBB	34	Euonymus alatus 'Compactus' / Compact Burning Bush	18"-24"
FOR	42	Forsythia intermedia 'Northern Gold' / Northern Gold Forsythia	5 gal
SGJ	51	Juniperus chinensis 'Sea Green' / Sea Green Juniper	5 gal
BCJ	12	Juniperus horizontalis 'Blue Chip' / Blue Chip Juniper	5 gal
DYU	21	Taxus media 'Densiformis' / Dense Yew	18"-24"
BMA	4	Viburnum dentatum 'Blue Muffin' / Blue Muffin Arrowwood	24"-30"
ANNUALS/PERENNIALS	Quantity	Botanical/Common	Size
HRD	264	Hemerocallis hybrid 'Happy Returns' / Happy Returns Daylily	1 gal
GROUND COVERS	Quantity	Botanical/Common	Size
LIR	2290	Liriope spicata / Creeping Liriope	4" pot @ 12" oc
ANN	1068	Min. of Five Varieties / Mixed Annuals	2.25" Pot @ 12" oc

REVISIONS	BY
4/20/10	RWH
5/28/10	RWH
12/6/10	RWH

**landscape**  
**TECHNOLOGIES**  
 87 Johnson Creek Drive  
 BOONVILLE, MISSOURI 64608  
 Phone: 816-882-0200  
 Fax: 816-882-0200  
 E-Mail: info@landscape-tech.com

**PRELIMINARY PLANTING PLAN FOR THE PROPOSED**  
**Black Hills Center**  
**WAL-MART #3872-03**  
**RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA**

DRAWN: K. HANSEN  
 CHECKED: RWH, J.B.  
 DATE: 5/10/10  
 SCALE: 1"=8'-0"  
 JOB NO.: 100-10-00  
 SHEET: **L-6**  
 OF 54-T SHEETS



REVISIONS	BY
4/20/10	RW1
5/28/10	RW1
12/8/10	RW1

**landscape TECHNOLOGIES**

41 Johnson Creek Drive, Suite 100  
 Wauwatosa, WI 53226  
 Phone: (414) 781-8800  
 Fax: (414) 781-8877  
 www.landscape-technologies.com

**permaloc**  
 WORLD'S BEST LANDSCAPE EDGING

PERMALOC CORPORATION  
 1500 DOWNEY AVENUE  
 WILMINGTON, DE 19804  
 PHONE: (302) 581-8800  
 FAX: (302) 581-8877  
 www.permaloc.com

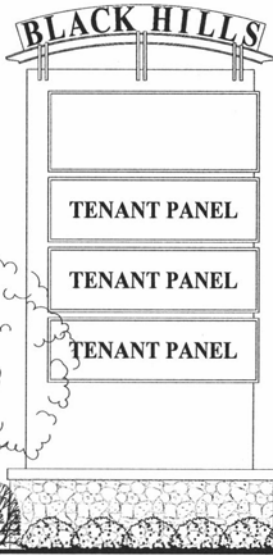
**PRELIMINARY PLANTING PLAN FOR THE PROPOSED Black Hills Center**  
**WAL-MART #3872-03**  
 RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA

DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 DATE: 12/8/10  
 JOB NO: 2008-08  
 SHEET: L-7  
 OF 1087 SHEETS

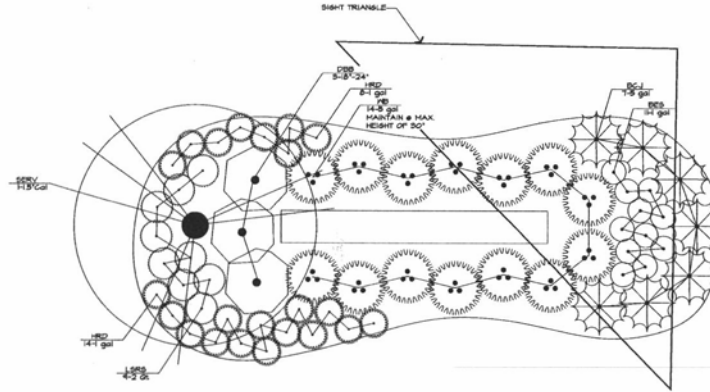




10PL096

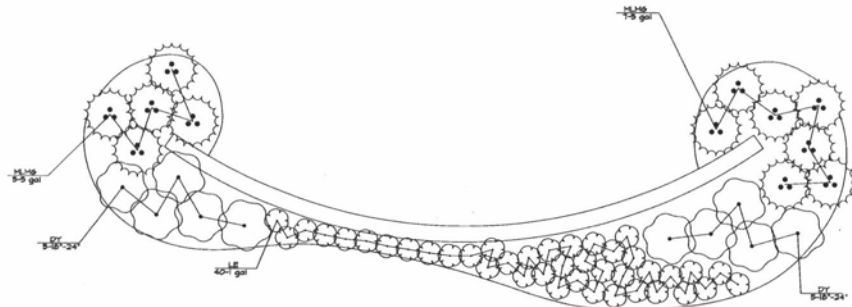


NOTE:  
TOTAL PROPOSED SIGN AREA: 247.5 S.F.



Planting Plan @ Pylon Sign

Scale: 1"=10'-0"



Planting Plan @ Entrance Monuments (2 Total)

Scale: 1"=10'-0"



REVISIONS	BY

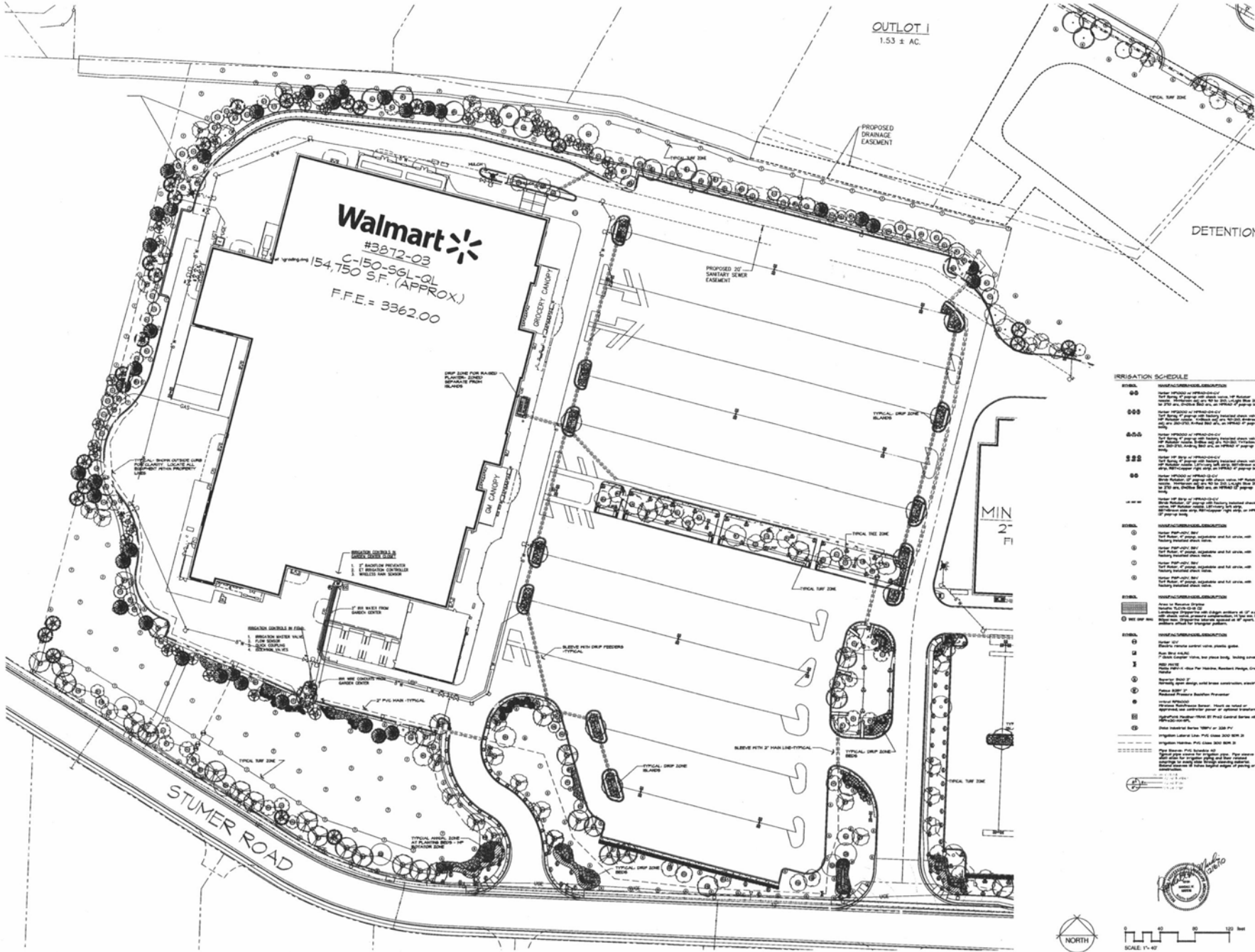
**landscape**  
**TECHNOLOGIES**  
 87 Jacobs Creek, Dr. • Phone: 605-428-2900  
 1405 E. 12th St. • Fax: 605-428-2900  
 Rapid City, SD 57701 • www.landscape-technologies.com

PRELIMINARY PLANTING PLAN FOR THE PROPOSED  
**Black Hills Center**  
 WAL-MART #3872-03  
 RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA

DRAWN  
 R. HARDS  
 CHECKED  
 R. WOOD  
 DATE  
 2/20/10  
 SCALE  
 1"=10'-0"  
 TIME TO  
 2010-04

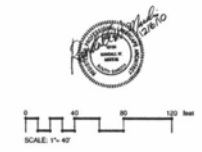
SHEET  
**L-8**  
OF EIGHT SHEETS





#### IRRIGATION SCHEDULE

00	MANUFACTURER'S GUARANTEE This is a manufacturer's guarantee for the irrigation system and its components. It is not a warranty. The manufacturer's guarantee is void if the system is not installed and maintained in accordance with the manufacturer's instructions. The manufacturer's guarantee is void if the system is used for any purpose other than that intended by the manufacturer. The manufacturer's guarantee is void if the system is used in any area where it is not intended to be used.
000	WARRANTY The manufacturer warrants that the irrigation system and its components will be free from defects in material and workmanship for a period of one (1) year from the date of installation. This warranty is limited to the original purchaser and is not transferable. The manufacturer's warranty is void if the system is not installed and maintained in accordance with the manufacturer's instructions. The manufacturer's warranty is void if the system is used for any purpose other than that intended by the manufacturer. The manufacturer's warranty is void if the system is used in any area where it is not intended to be used.
00.0	WARRANTY The manufacturer warrants that the irrigation system and its components will be free from defects in material and workmanship for a period of one (1) year from the date of installation. This warranty is limited to the original purchaser and is not transferable. The manufacturer's warranty is void if the system is not installed and maintained in accordance with the manufacturer's instructions. The manufacturer's warranty is void if the system is used for any purpose other than that intended by the manufacturer. The manufacturer's warranty is void if the system is used in any area where it is not intended to be used.
000.0	WARRANTY The manufacturer warrants that the irrigation system and its components will be free from defects in material and workmanship for a period of one (1) year from the date of installation. This warranty is limited to the original purchaser and is not transferable. The manufacturer's warranty is void if the system is not installed and maintained in accordance with the manufacturer's instructions. The manufacturer's warranty is void if the system is used for any purpose other than that intended by the manufacturer. The manufacturer's warranty is void if the system is used in any area where it is not intended to be used.
0000	WARRANTY The manufacturer warrants that the irrigation system and its components will be free from defects in material and workmanship for a period of one (1) year from the date of installation. This warranty is limited to the original purchaser and is not transferable. The manufacturer's warranty is void if the system is not installed and maintained in accordance with the manufacturer's instructions. The manufacturer's warranty is void if the system is used for any purpose other than that intended by the manufacturer. The manufacturer's warranty is void if the system is used in any area where it is not intended to be used.
0000.0	WARRANTY The manufacturer warrants that the irrigation system and its components will be free from defects in material and workmanship for a period of one (1) year from the date of installation. This warranty is limited to the original purchaser and is not transferable. The manufacturer's warranty is void if the system is not installed and maintained in accordance with the manufacturer's instructions. The manufacturer's warranty is void if the system is used for any purpose other than that intended by the manufacturer. The manufacturer's warranty is void if the system is used in any area where it is not intended to be used.
00000	WARRANTY The manufacturer warrants that the irrigation system and its components will be free from defects in material and workmanship for a period of one (1) year from the date of installation. This warranty is limited to the original purchaser and is not transferable. The manufacturer's warranty is void if the system is not installed and maintained in accordance with the manufacturer's instructions. The manufacturer's warranty is void if the system is used for any purpose other than that intended by the manufacturer. The manufacturer's warranty is void if the system is used in any area where it is not intended to be used.



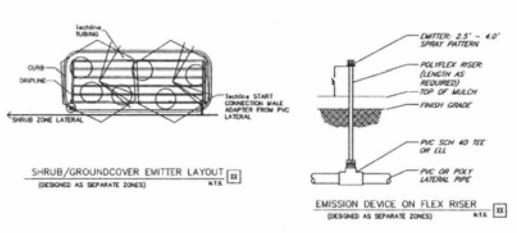
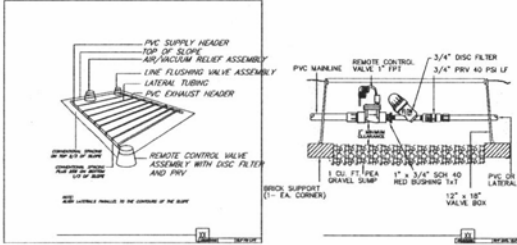
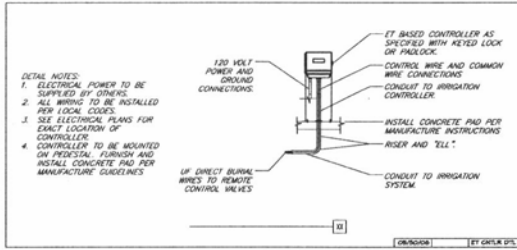
REVISIONS	BY

**Landscape**  
**TECHNOLOGIES**  
9713 Avenue A, Rapid City, SD 57701  
P: 605.741.0000  
F: 605.741.0000  
WWW.LANDSCAPETECHNOLOGIES.COM

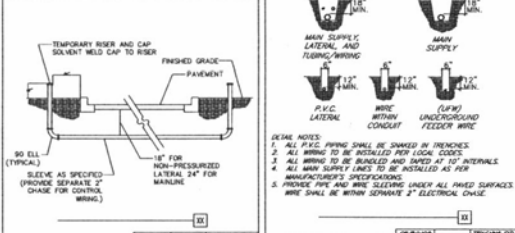
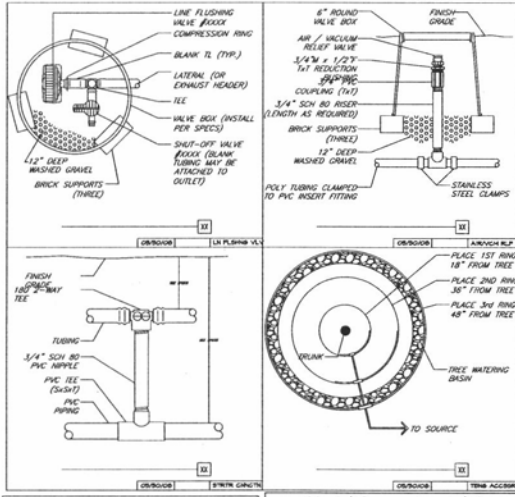
PRELIMINARY IRRIGATION PLAN FOR THE PROPOSED  
**Black Hills Center**  
WAL-MART #3872-03  
RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA

DRAWN BY  
CHECKED BY  
DATE  
SCALE  
SHEET  
NO. OF SHEETS  
**IR-1**  
OF THREE SHEETS

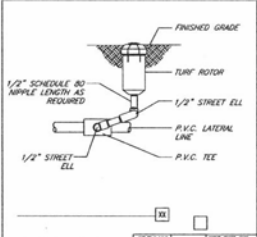
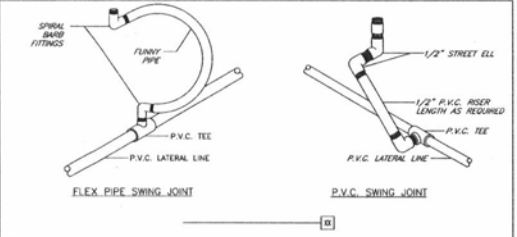
### GENERAL APPLICATION COMPONENTS



### LOW VOLUME APPLICATION COMPONENTS



### HIGH VOLUME APPLICATION COMPONENTS



#### IRRIGATION SCHEDULE

NO.	DESCRIPTION
00	INITIAL IRRIGATION
000	...
0000	...
00000	...
000000	...
0000000	...
00000000	...
000000000	...
0000000000	...
00000000000	...
000000000000	...
0000000000000	...
00000000000000	...
000000000000000	...
0000000000000000	...
00000000000000000	...
000000000000000000	...
0000000000000000000	...
00000000000000000000	...
000000000000000000000	...
0000000000000000000000	...
00000000000000000000000	...
000000000000000000000000	...
0000000000000000000000000	...
00000000000000000000000000	...
000000000000000000000000000	...
0000000000000000000000000000	...
00000000000000000000000000000	...
000000000000000000000000000000	...
0000000000000000000000000000000	...
00000000000000000000000000000000	...
000000000000000000000000000000000	...

- #### IRRIGATION NOTES:
- THE OWNER OR THE PROJECT SPECIFICATIONS AND A PART OF THE PROJECT SPECIFICATIONS SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO OBTAIN ALL IRRIGATION EQUIPMENT FROM THE IRRIGATION CONTRACTOR. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IRRIGATION EQUIPMENT FROM THE IRRIGATION CONTRACTOR. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IRRIGATION EQUIPMENT FROM THE IRRIGATION CONTRACTOR.
  - CONTRACTOR SHALL HAVE NO SUBSTITUTIONS, OMISSIONS, OR ADDITIONS TO THIS PLAN WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
  - CONTRACTOR SHALL VERIFY LANDSCAPE ARCHITECT'S PLAN OR SPECIFICATIONS FOR ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS PRIOR TO BEGINNING WORK.
  - CONTRACTOR SHALL MAKE NO SUBSTITUTIONS, OMISSIONS, OR ADDITIONS TO THIS PLAN WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
  - CONTRACTOR SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO OBTAIN ALL IRRIGATION EQUIPMENT FROM THE IRRIGATION CONTRACTOR. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IRRIGATION EQUIPMENT FROM THE IRRIGATION CONTRACTOR.
  - THIS PLAN IS SOFRATIVE AND BE SUBJECT TO THE HARRISON COUNTY SMOKE FIELD MODIFICATIONS MAY BE NECESSARY TO IMPLIMENT PLAN.
  - SEE IRRIGATION SYSTEM IS DESIGNED TO THE FOLLOWING STATE: (a) UPON STATIC WATER PRESSURE IS REQUIRED TO IN PSIG.
  - CONTRACTOR TO VERIFY ACTUAL AVAILABLE WATER PRESSURE BEFORE BEGINNING INSTALLATION. CONTRACTOR SHALL VERIFY LANDSCAPE ARCHITECT'S PLAN OR SPECIFICATIONS FOR ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS PRIOR TO BEGINNING WORK.
  - IRRIGATION SYSTEMS CONNECTED TO POSSIBLE WATER SUPPLY, SHALL HAVE A BACKFLOW PREVENTER INSTALLED.
  - WHERE APPLICABLE, IRRIGATION SYSTEMS SHALL BE ADAPTED FOR COMPLEX CONDITIONS WITH MINIMUM OVER SPRINK BEYOND LATERALS, HEAD.
  - EXISTING TRENCH TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR LOCATIONS WITHIN THE CRITICAL PARTS END OF ANY TREE.
  - IRRIGATION LATERAL LINES AND EQUIPMENT MAY BE SOWN OTHER PROPERTY LINES ON THIS PLAN. ALL IRRIGATION LINES AND EQUIPMENT ARE TO BE INSTALLED WITHIN THE LIMITS OF THE PROPERTY LINE.
  - ALL IRRIGATION SYSTEMS TO BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. THE IRRIGATION CONTRACTOR SHALL VERIFY LANDSCAPE ARCHITECT'S PLAN OR SPECIFICATIONS FOR ANY DISCREPANCIES IN PLANS OR SPECIFICATIONS PRIOR TO BEGINNING WORK.
  - IRRI GATION LINE AND NEED TO BE PROVIDED BY GENERAL CONTRACTOR. BACKFLOW PREVENTER TO BE PROVIDED BY IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR FURNISH ALL IRRIGATION EQUIPMENT FROM THE IRRIGATION CONTRACTOR. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IRRIGATION EQUIPMENT FROM THE IRRIGATION CONTRACTOR.
  - IRRIGATION CONTRACTOR SHALL REVIEW INSTALLATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERS REPRESENTATIVE.
  - ALL PLANT MATERIAL IN TREE HOUSING AREAS SHALL BE MANUALLY WATERED/IRRIGATED TO KEEP MOIST AND PLANTED.
  - SEE SPECIFICATIONS FOR OTHER PLANNING EQUIPMENT TO BE INSTALLED BY IRRIGATION CONTRACTOR.

REVISIONS	BY

**landscape TECHNOLOGIES**

9437 S. LOCUST, SUITE 200, RAPID CITY, SOUTH DAKOTA 57701  
 (605) 342-2222  
 FAX: (605) 342-2223  
 WWW.LANDSCAPETECHNOLOGIES.COM

**PRELIMINARY IRRIGATION PLAN FOR THE PROPOSED Black Hills Center WAL-MART #3872-03 RAPID CITY, PENNINGTON COUNTY, SOUTH DAKOTA**



DRAWN BY: BHOFF  
 CHECKED BY: BHOFF  
 DATE: 04/20/2010  
 SCALE: 1"=4'-0"  
 JOB NO.: 2009-007  
 SHEET: IR-2  
 OF THREE SHEETS



SEGMENTAL RETAINING WALL (SRW) GENERAL NOTES

CONSTRUCTION SPECIFICATIONS
SPECIFICATION FOR CONSTRUCTION OF SEGMENTAL RETAINING WALL SYSTEMS SHALL BE WALMART SPECIFICATION SECTION 02830 - "SEGMENTAL RETAINING WALL SYSTEMS" AND RELATED SECTIONS.

CONSTRUCTION DRAWINGS
THESE DRAWINGS ARE PROVIDED FOR SEGMENTAL RETAINING WALL (SRW) CONSTRUCTION USING THE FOLLOWING SRW UNIT - GEORGD REINFORCEMENT COMBINATION: KEYSTONE COMPAC II TR-PLANE SRW UNITS - MRRAFI MRRAORD GEORGD

WALL ERECTION
THE WALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SRW MANUFACTURER'S RECOMMENDATIONS, WALMART SPECIFICATIONS, AND THESE REQUIREMENTS, WHERE CONFLICTS EXIST, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.

WALL CONSTRUCTION QUALIFICATIONS
SEE WALMART SPECIFICATIONS FOR MINIMUM EXPERIENCE AND DOCUMENTATION REQUIREMENTS.

SUBMITTALS
SEE WALMART SPECIFICATIONS FOR SUBMITTAL REQUIREMENTS, CERTIFICATIONS OF COMPLIANCE, AND SAMPLES.

DEVIATIONS FROM SITE PLANS
THESE DESIGNS ARE BASED UPON SITE PLANS PERFORMED BY WOLVERTON & ASSOCIATES, INC. CHANGES OR DEVIATIONS FROM THESE SITE PLANS, INCLUDING GRADING, DRAINAGE UTILITIES OR SURCHARGE LOADS, MAY AFFECT WALL DESIGN REQUIREMENTS. WALL ENGINEER SHALL BE NOTIFIED OF ANY CHANGES TO OR DEVIATIONS FROM THE SITE PLAN SO AN ASSESSMENT OF WALL DESIGN REQUIREMENTS CAN BE MADE.

INSPECTION AND TESTING AGENCY
IN ACCORDANCE WITH WALMART SPECIFICATIONS (PARA 3.3.A.1) THE OWNER'S CONSTRUCTION TESTING LABORATORY (CTL) SHALL CONDUCT QUALITY CONTROL TESTS AND INSPECTIONS IN ACCORDANCE WITH WALMART SPECIFICATIONS 02830 - SEGMENTAL RETAINING WALL SYSTEMS.

CTL INSPECTION ENGINEER
THE CTL INSPECTION ENGINEER IS RESPONSIBLE FOR READING AND UNDERSTANDING THESE DRAWINGS AND SPECIFICATIONS. HE SHALL BE IN POSSESSION OF A COMPLETE SET OF THESE DRAWINGS. THE INSPECTION ENGINEER SHALL INSPECT CONSTRUCTION OF THE WALL FOR CONFORMANCE TO THE WALL PLANS, WALMART SPECIFICATIONS AND THESE CONSTRUCTION REQUIREMENTS. INSPECTION SHALL BE PERFORMED BY AN INDIVIDUAL EMPLOYED WITH PROW CONSTRUCTION IN ACCORDANCE WITH WALMART SPECIFICATIONS (PARA 3.3.B.1). INSPECTION SHALL INCLUDE FOUNDATION AND RETENTION EVALUATION, EACH LEFT OF P.I. PLACEMENT AND COMPACTON, AND SRW AND GEOSYNTHETIC REINFORCEMENT INSTALLATION. THE INSPECTION ENGINEER SHALL CONTACT WALL DESIGNER IF ANY ASPECT OF THESE CONSTRUCTION DRAWINGS ARE UNCLEAR.

VERIFICATION OF DESIGN ASSUMPTIONS
THE INSPECTION ENGINEER SHALL INSPECT SOIL IN THE RETAINED AND FOUNDATION SOIL ZONES TO VERIFY DESIGN ASSUMPTIONS MADE BY THE WALL DESIGN ENGINEER REGARDING THE SHEAR STRENGTH OF THESE SOILS ARE ADEQUATELY CONSERVATIVE. IF ACTUAL SOIL SHEAR STRENGTHS ARE LESS THAN THOSE WHICH ARE ASSUMED, THEN THE INSPECTION ENGINEER SHALL NOTIFY THE CONTRACTOR AND THE CONTRACTOR SHALL STOP WORK AND CONTACT THE WALL DESIGN ENGINEER IF THE ASSUMED SHEAR STRENGTH VALUES ARE NOT CONSERVATIVE, THEN REDISIGN OF THE RETAINING WALL MAY BE REQUIRED. THE INSPECTION ENGINEER SHALL CONFIRM THAT THE SOIL PROPERTIES USED FOR THIS DESIGN ARE ADEQUATELY CONSERVATIVE. AFTER INSPECTION OF ACTUAL REINFORCED, RETAINED, AND FOUNDATION SOIL.

PRECONSTRUCTION MEETING
THE GENERAL CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING THAT SHALL BE ATTENDED BY THE WALL DESIGN ENGINEER, THE WALL CONTRACTOR, THE GRADING CONTRACTOR, AND THE CTL INSPECTION ENGINEER. THE GENERAL CONTRACTOR SHALL PROVIDE AT LEAST 14 DAYS NOTICE OF THE MEETING DATE.

JOB SITE SAFETY
JOB SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH OSHA REQUIREMENTS.

CLEARING AND GRUBBING
BEFORE WALL CONSTRUCTION BEGINS, THE CONTRACTOR SHALL CLEAR AND GRUB THE REINFORCED SOIL ZONE AND REMOVE TOPSOIL, BRUSH, FROZEN SOIL, AND ORGANIC MATERIAL. THE CONTRACTOR SHALL ALSO REMOVE ALL FOUNDATION SOIL DESIGNATED BY THE INSPECTION ENGINEER AS UNSUITABLE AND REPLACE IT WITH SOIL DESIGNATED BY THE INSPECTION ENGINEER AS SUITABLE, AND COMPACT IT TO PROW CONSTRUCTION. THE INSPECTION ENGINEER SHALL ASSESS THE REQUIREMENTS TO INSTALL GEOSYNTHETICS FOR BASE STABILIZATION AND SETTLEMENT MITIGATION.

EXCAVATION AND FOUNDATION PREPARATION
THE CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. EXCAVATIONS SHALL CONFORM TO OSHA REQUIREMENTS AND SHALL BE PERFORMED UNDER THE SUPERVISION OF THE INSPECTION ENGINEER. EXCAVATIONS AT THE BACK OF THE REINFORCED ZONE SHALL BE BENCH-CUT AS DIRECTED BY THE INSPECTION ENGINEER. THE COST OF OVER-EXCAVATION SHALL NOT BE COMPENSATED AND REPLACEMENT WITH MATERIAL MEETING THE REQUIREMENTS OF THE REINFORCED FILL SHALL BE REQUIRED AT THE CONTRACTOR'S EXPENSE. DISTURBANCE OF SOIL OUTSIDE THE LINES OF EXCAVATION SHALL BE AVOIDED.

LEVELING PAD
THE LEVELING PAD SHALL BE AT LEAST 24 INCHES WIDE AND 6 INCHES THICK. THE LEVELING PAD SHALL BE CONSTRUCTED SO AS TO PROVIDE A LEVEL, HARD SURFACE UPON WHICH TO PLACE THE FIRST COURSE OF SRW UNITS. THE LEVELING PAD SHALL BE PREPARED TO INSURE COMPLETE CONTACT BETWEEN THE PAD AND THE FIRST COURSE OF SRW UNITS.

THE LEVELING PAD SHALL BE CONSTRUCTED USING EITHER GRAVEL, CRUSHED STONE OR UNREINFORCED CONCRETE. IF GRAVEL IS USED TO CONSTRUCT THE LEVELING PAD, IT SHALL SATISFY ASTM C33 CRITERIA FOR GW OR SP AND IT SHALL BE COMPACTED WITH A MINIMUM OF FIVE PASSES OF A VIBRATORY SLED AND TO THE SATISFACTION OF THE INSPECTION ENGINEER. IF UNREINFORCED CONCRETE IS USED TO CONSTRUCT THE LEVELING PAD, IT SHALL EXHIBIT A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI. IF WALL ELEVATION REQUIRES STEPS THAT EXCEED 8" THEN THE ENTIRE LEVELING PAD SHALL BE CONSTRUCTED USING UNREINFORCED CONCRETE (3000 PSI MIN) ONLY.

SLOTTED DRAIN PIPE AND DRAINAGE BLANKET
INSTALL THE SLOTTED DRAIN PIPE AND DRAINAGE BLANKET AS SHOWN ON THE CONSTRUCTION DETAILS. CONNECT UTILITY PIPES SPACED AT INTERVALS OF 4 FEET TO MAX CUT SRW UNITS AS SHOWN IN STANDARDS. SRW DETAILS FOR OUTLET PIPE PENETRATION, INSTALL DRAINAGE AGGREGATE, CORE FILL, AND REINFORCED SOIL EVERY COURSE OF SRW UNITS.

BLOCK STACKING
NO MORE THAN ONE COURSE OF SRW UNITS MAY BE STACKED BEFORE DRAINAGE AGGREGATE, CORE FILL, AND REINFORCED SOIL IS INSTALLED.

DRAIN PIPE
DRAIN PIPE INSTALLED BEHIND THE WALL FACE SHALL COMPRISE 4-INCH DIAMETER SLOTTED HDPE PIPE.

GEOSYNTHETIC REINFORCEMENT
INSTALL GEOSYNTHETIC REINFORCEMENT AT THE LOCATIONS AND ELEVATIONS SHOWN ON THE WALL PLAN. GEOSYNTHETIC REINFORCEMENT LENGTH IS MEASURED FROM THE WALL FACE. PANELS OF GEOSYNTHETIC REINFORCEMENT SHALL BE TENSIONED SUCH THAT ALL FOLDS AND WRINKLES ARE REMOVED BEFORE REINFORCED SOIL IS PLACED. PANELS SHALL BE STAGED OR ANCHORED AS NECESSARY TO MAINTAIN TAUT CONDITION. ADJACENT PANELS SHALL BE BUTTED, 100 PERCENT REINFORCEMENT COVERAGE IS REQUIRED. WALL CONTRACTOR AND INSPECTION ENGINEER SHALL VERIFY THAT GEOSYNTHETIC REINFORCEMENT TYPE CORRESPONDS TO THE TYPE SHOWN ON THE WALL PLAN BEFORE THE REINFORCEMENT IS INSTALLED. IF APPLICABLE GEOSYNTHETIC REINFORCEMENT PANELS INSTALLED AT WALL CORNERS AND RADII MAY OVERLAP. OVERLAPPING PANELS SHALL BE SEPARATED BY AT LEAST 3 INCHES OF COMPACTED SOIL. CONNECT GEOSYNTHETIC TO SRW UNIT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THESE DRAWINGS.

GEOTEXTILE FILTER
GEOTEXTILE FILTER SHALL COMPRISE NEEDLE-PUNCHED, NONWOVEN, POLYPROPYLENE MATERIAL ANDH

TYPE A GEOTEXTILE SHALL SATISFY AASHTO M208-00 STRENGTH CRITERIA FOR CLASS 2 SURVIVABILITY. IT SHALL EXHIBIT A MIN AVG ROLL VALUE OF PERMITTIVITY OF 0.3 PER SEC AND A MAX AVG ROLL VALUE OF APPARENT OPENING SIZE OF 0.02MM. PRE-APPROVED MATERIALS INCLUDE AMOCO 455, MRRAFI 10N AND SYNTHETIC INDUSTRIES GEOTEX 80L.

TYPE B GEOTEXTILE SHALL SATISFY AASHTO M208-00 STRENGTH CRITERIA FOR CLASS 1 SURVIVABILITY. IT SHALL EXHIBIT A MIN AVG ROLL VALUE OF PERMITTIVITY OF 0.3 PER SEC AND A MAX AVG ROLL VALUE OF APPARENT OPENING SIZE OF 0.02MM. PRE-APPROVED MATERIALS INCLUDE AMOCO 455S, MRRAFI 10N AND SYNTHETIC INDUSTRIES GEOTEX 80L.

DRAINAGE AGGREGATE AND SRW CORE FILL
DRAINAGE AGGREGATE AND SRW CORE FILL SHALL SATISFY ASTM C33 CRITERIA FOR NO. 57 OR 67 STONE.

DRAINAGE AND EROSION PROTECTION
AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL GRADE THE SURFACE OF THE LAST LEFT OF REINFORCED SOIL AWAY FROM THE WALL FACE AND COMPACT DURING SITE CONSTRUCTION. THE WALL SHALL BE PROTECTED FROM SURFACE WATER AT ALL TIMES BY THE USE OF BERMS, DIVERSION DITCHES, TEMPORARY DRAINS AND ALL OTHER MEANS THAT ARE REQUIRED. WATER SHALL NOT BE PERMITTED TO POND BEHIND THE WALL. ALL SLOPE ABOVE AND BELOW THE WALL SHALL BE VEGETATED AND PROTECTED FROM EROSION AS SOON AS POSSIBLE FOLLOWING THEIR CONSTRUCTION. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF THE WALLS AGAINST THE ADVERSE EFFECTS OF SURFACE WATER.

DEFICIENCY NOTIFICATION
THE INSPECTION ENGINEER SHALL NOTIFY THE WALL CONTRACTOR OF DEFICIENCIES. THE WALL CONTRACTOR SHALL BE PROVIDED THE OPPORTUNITY TO REPAIR. IF REPAIR IS NOT EFFECTED, THEN THE INSPECTION ENGINEER SHALL NOTIFY THE GENERAL CONTRACTOR. INSPECTION RESULTS SHALL BE DOCUMENTED.

COMPACTION DENSITY AND MOISTURE CONTENT REQUIREMENTS
COMPACT SOIL IN REINFORCED ZONE IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS: SOIL IN THE REINFORCED ZONE SHALL BE COMPACTED TO WITHIN 95 PERCENT OF ITS MAXIMUM DRY DENSITY AND WITHIN 2 PERCENT OF ITS OPTIMUM WATER CONTENT AS MEASURED IN ACCORDANCE WITH ASTM D 698 (STANDARD PROCTOR METHOD). THE COMPACTED DENSITY AND MOISTURE CONTENT OF THE SOIL IN THE REINFORCED ZONE SHALL BE TESTED IN ACCORDANCE WITH THE FOLLOWING:
1. AT LEAST ONCE PER EVERY 1000 SQUARE FEET IN PLAN AREA PER 8-INCH-THICK LFT.
2. AT LEAST ONCE PER EVERY 2 FEET OF WALL ERECTION.

FILL SOIL INSTALLED IN SLOPES ABOVE OR BELOW THE WALL SHALL BE COMPACTED TO WITHIN 95 PERCENT OF ITS MAXIMUM DRY DENSITY AND TO WITHIN 2 PERCENT OF ITS OPTIMUM WATER CONTENT AS MEASURED IN ACCORDANCE WITH ASTM D 698 (STANDARD PROCTOR METHOD).

COMPACTION EQUIPMENT
HEAVY GLE-RIDE-ON COMPACTION EQUIPMENT OR OTHER HEAVY CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED WITH 4 FEET OF THE WALL FACE. WITHIN 4 FEET OF THE WALL FACE, ONLY HAND-OPERATED (I.E. WALK-BEHIND) COMPACTION EQUIPMENT MAY BE USED.

SOIL COMPACTION DOCUMENTATION AND INSPECTION
THE INSPECTION ENGINEER SHALL INSPECT AND DOCUMENT COMPACTION OF SOIL IN THE REINFORCED SOIL ZONE IN ACCORDANCE WITH THESE REQUIREMENTS. INSPECTION RECORDS SHALL DOCUMENT VISUAL SOIL DESCRIPTION, REQUIRED MINIMUM DRY UNIT WEIGHT, ACTUAL DRY UNIT WEIGHT, ALLOWABLE MOISTURE CONTENT, ACTUAL MOISTURE CONTENT, TEST LOCATION AND ELEVATION, AND PASS OR FAIL ASSESSMENT. SOIL SHALL BE INSTALLED IN COMPACTED LFT'S NO GREATER THAN 8 INCHES AND NO LESS THAN 6 INCHES IN THICKNESS.

IRRIGATION LINES
THE INSTALLATION OF PVC IRRIGATION LINES ABOVE THE REINFORCED ZONE OR WITHIN 10 FEET OF A REINFORCED ZONE OR WITHIN 10 FEET OF A WALL TOE IS NOT PERMITTED.

LANDSCAPING
SMALL SHRUBS MAY BE INSTALLED ABOVE THE REINFORCED ZONE BUT SHALL BE SPACED NO CLOSER THAN 10 FEET. IF THE TOP LAYER OF GEORGD OBSTRUCTS SHRUB INSTALLATION, THE CONTRACTOR SHALL CAREFULLY EXPOSE THE GEORGD AND CUT A HOLE NO LARGER THAN 24 INCHES IN DIAMETER USING A RAKE. NO OTHER EXCAVATION THROUGH LAYERS OF GEOSYNTHETIC REINFORCEMENT IS PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE WALL DESIGNER.

TURF REINFORCEMENT MAT (TRM)
TRM, IF REQUIRED, SHALL CONSIST OF EITHER NORTH AMERICAN GREEN C350 OR SYNTHETIC INDUSTRIES LANDCORK TRM 450.

SRW WALL DESIGN DATA

SPECIFICATIONS
WALMART SPECIFICATIONS 02830 - "SEGMENTAL RETAINING WALL SYSTEMS" AND RELATED SECTIONS NMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS

PARAMETERS
LOADING ----- FLAT BACKLIT SLOPE
TRAFFIC LOADING = 250 PSF (LIVE)
BUILDING LOADING = 0 PSF - BUILDING FOUNDED ON PIERS
ADOT DEAD LOAD = 50 PSF (DEAD)

BEARING CAPACITY REQUIRED ----- VARIES, SEE WALL ELEVATION VIEWS.

SEISMIC PARAMETERS ----- SEISMIC CATEGORY "C". HORIZONTAL ACCELERATION = 0.2G

FACTORS OF SAFETY:
SLIDING ----- 1.5
OVERTURNING ----- 2.0
MATERIAL UNCERTAINTY ----- 1.5
GLOBAL STABILITY ----- 1.5
BEARING ----- 2.5
OVERSTRESS ----- 1.0
PULLOUT ----- 1.5
CONNECTION ----- 1.5
COMPOUND FAILURE ----- 1.5
INSTALLATION DAMAGE ----- 1.25
LR ----- 0.7 MRN

GEOTECHNICAL SITE INVESTIGATION REPORT
THIS DESIGN IS BASED ON FINDINGS THE FOLLOWING REPORT(S) OF GEOTECHNICAL SITE INVESTIGATION DATED NOVEMBER 15, 2010 PERFORMED BY TERRACON CONSULTANTS, INC.

"INITIAL GEOTECHNICAL ENGINEERING REPORT" TERRACON PROJECT NUMBER B40020 DATED NOVEMBER 15, 2010 PERFORMED BY TERRACON CONSULTANTS, INC.

ANY ADDITIONAL GEOTECHNICAL AND CONSTRUCTION REQUIREMENTS ARE NOTED ON THE DRAWINGS.

GROUNDWATER
NO GROUNDWATER IS EXPECTED TO OCCUR ALONG THE PROPOSED WALLS, AS NOTED IN THE GEOTECHNICAL REPORT. IF GROUNDWATER IS ENCOUNTERED DURING WALL CONSTRUCTION, STOP WORK AND NOTIFY WALL DESIGNER.

UNDERCUT AND STONE BACKFILL
PRIOR TO INSTALLATION OF WALL NUMBER 5, THE CONTRACTOR SHALL UNDERCUT THE FOUNDATION SOIL UNTIL COMPETENT ROCK IS EXPOSED. THE CONTRACTOR SHALL INSTALL AND COMPACT STONE BACKFILL OR LEAN CONCRETE TO THE BOTTOM OF THE FIRST COURSE OF THE WALL TO PROVIDE THE REQUIRED BEARING CAPACITY INDICATED ON THE PLANS. THE WALL DESIGNER SHALL BE NOTIFIED PRIOR TO INSTALLATION OF THE DEPTH AND LIMITS OF UNDERCUT AND THE GRADATION OF STONE BACKFILL. SEE TYPICAL SECTION DETAIL ON SHEET RW-2.

UTILITIES
SEE SITE PLANS FOR UTILITIES LOCATED IN OR NEAR REINFORCED BACKFILL OF WALL. WALL CONTRACTOR TO COORDINATE WALL CONSTRUCTION WITH UTILITY AND STORM DRAIN PIPE INSTALLATION.

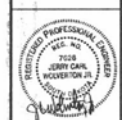
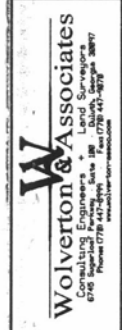
SRW MATERIALS
REINFORCED SOIL ZONE - ENGINEERED FILL
SOIL INSTALLED IN THE REINFORCED SOIL ZONE SHALL SATISFY THE REQUIREMENTS IN SECTION 02830 (PARA 2.7) OF THE WALMART SPECIFICATIONS. REINFORCED SOIL SHALL EXHIBIT A MINIMUM  $\phi'$  OF 36.0 DEGREES AND A NOMINAL UNIT WEIGHT OF 135 PCF. A COHESION VALUE OF ZERO IS ASSUMED.

RETAINED SOIL ZONE
SOIL BENEATH THE REINFORCED ZONE SHALL SATISFY THE REQUIREMENTS IN SECTION 02830 (PARA 2.7) OF THE WALMART SPECIFICATIONS. SOIL SHALL EXHIBIT A MINIMUM  $\phi'$  OF 20 DEGREES AND A NOMINAL UNIT WEIGHT OF 100 PCF. SOIL INSTALLED IN THE RETAINED ZONE SHALL BE FREE OF MUCK, ROOTS, FROZEN MATERIAL, CONSTRUCTION DEBRIS.

FOUNDATION SOIL ZONE
SOIL BENEATH THE REINFORCED ZONE AND THE ENTIRE RETAINED SOIL ZONE ARE ASSUMED TO SATISFY THE REQUIREMENTS IN SECTION 02830 (PARA 3.3B) OF THE WALMART SPECIFICATIONS. FOR WALL NUMBER 2, IN-SITU FOUNDATION SOIL SHALL BE EXCAVATED UNTIL COMPETENT SHALE ROCK IS EXPOSED.

SRW UNITS AND CAP UNITS
SRW UNITS SHALL COMPRISE OF THE FOLLOWING:
KEYSTONE COMPAC II TR-PLANE SRW UNITS AND CAP UNITS (TO BE USED ONLY WITH MRRAFI MRRAORD GEORGD) BLOCK COLOR TO BE COMPATIBLE WITH BUILDINGS AND TO BE DETERMINED IN FIELD

GEOSYNTHETIC REINFORCEMENT
USE ONLY THE GEOSYNTHETIC REINFORCEMENT SHOWN ON THE REINFORCEMENT SCHEDULE. THE WALL CONTRACTOR AND INSPECTION ENGINEER SHALL VERIFY THAT GEOSYNTHETIC TYPE CORRESPONDS TO THE TYPE SHOWN ON THE WALL ELEVATION BEFORE ITS INSTALLATION.



PROJECT TITLE: BLACK HILLS CENTER
WALMART STORE #382-03
RAPID CITY, SOUTH DAKOTA
BY: THE STONERIDGE DEVELOPMENT
ST. LOUIS, MISSOURI

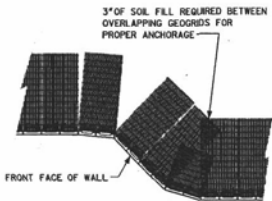
SEGMENTAL RETAINING WALL
GENERAL NOTES

REVISIONS BY
DRAWN BY: R. LEWIS
CHECKED BY: R. LEWIS
DATE: 12-09-10
SCALE: NO SCALE
JOB NO. 08-140
SHEET NUMBER RW-1



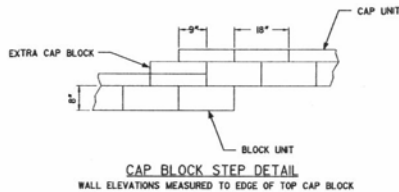
NOT FOR CONSTRUCTION
FOR PERMITTING ONLY

A  
B  
C  
D  
E  
F  
G

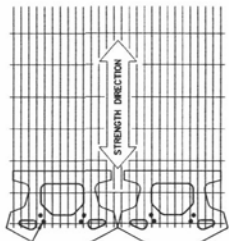


3" OF SOIL FILL REQUIRED BETWEEN OVERLAPPING GEOGRIDS FOR PROPER ANCHORAGE

GEOGRID AT WALL CORNER DETAIL



CAP BLOCK STEP DETAIL  
WALL ELEVATIONS MEASURED TO EDGE OF TOP CAP BLOCK

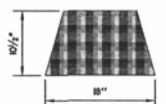


GEOGRID IS TO BE PLACED ON LEVEL BACKFILL AND EXTENDED OVER THE FIBERGLASS PINS. PLACE NEXT UNIT. PULL GRID TAUGHT AND BACKFILL STAKE AS REQUIRED.

GRID & PIN CONNECTION



CAP UNIT ELEVATION



CAP UNIT PLAN



COMPAC II ELEVATION

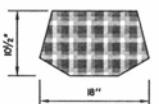


COMPAC II PLAN

COMPAC II UNIT



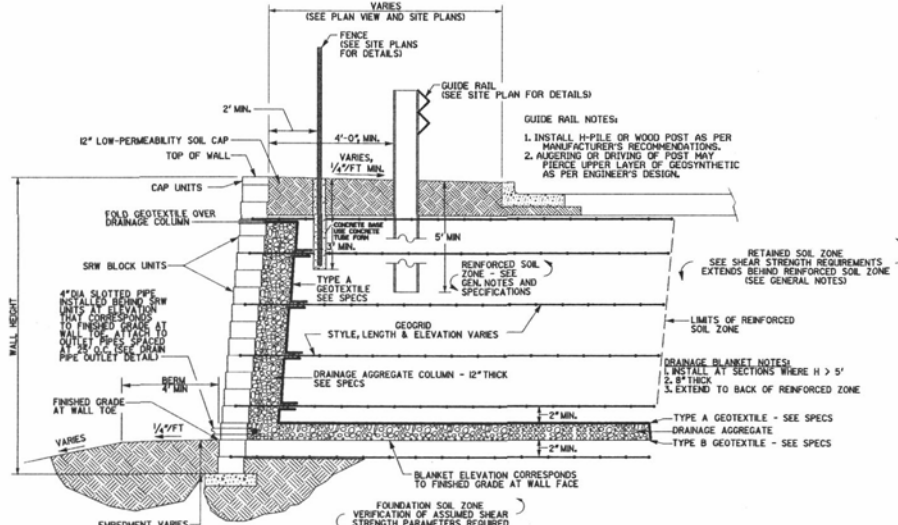
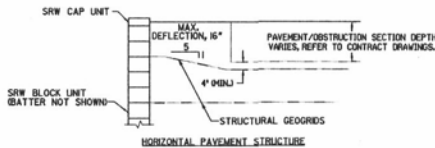
CAP UNIT ELEVATION



CAP UNIT PLAN

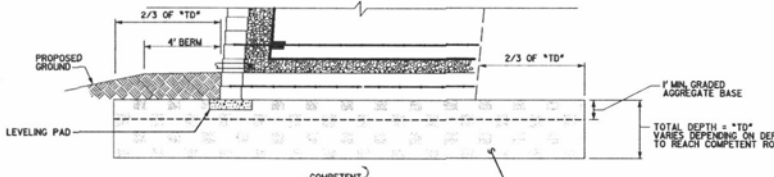
GEOGRID PLACEMENT AT PAVEMENT/OBSTRUCTION SECTION

NOTE:  
CONTRACTOR IS RESPONSIBLE TO COORDINATE THE PLACEMENT OF THE GEOGRID TO AVOID CONFLICT WITH THE CONTRACT PAVEMENT/OBSTRUCTION SECTION. GEOGRID MUST BE SEPARATED FROM THE PAVEMENT/OBSTRUCTION SECTION BY A MINIMUM OF 4".



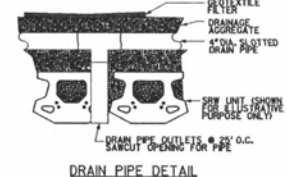
TYPICAL CROSS SECTION OF WALL

NOTES:  
1. GEOGRID SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. SEE WALL ELEVATION FOR GEOGRID STYLE, LENGTH, AND LOCATION.  
2. WALL SETBACK TO BE 1'-1.5" PER UNIT (APPROX. 1" TO 1.5").  
3. UNDERCUT AND STONE BACKFILL, IF REQUIRED, NOT SHOWN SEE BELOW FOR DETAIL.

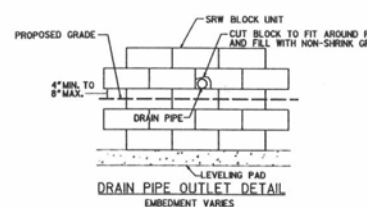


UNDERCUT AND STONE BACKFILL DETAIL - WALL 2

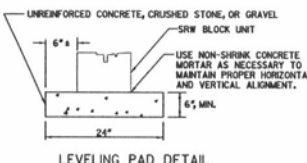
NOTES:  
1. GEOGRID SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. SEE WALL ELEVATION FOR GEOGRID STYLE, LENGTH, AND LOCATION.  
2. THE CONTRACTOR SHALL UNDERCUT THE FOUNDATION SOIL UNTIL COMPETENT ROCK IS EXPOSED. ESTIMATED AVERAGE DEPTH BELOW EXISTING GRADE = 14 FEET.



DRAIN PIPE DETAIL

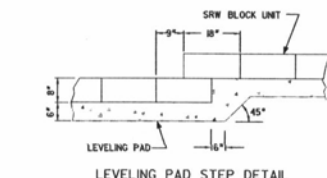


DRAIN PIPE OUTLET DETAIL  
EMBEDMENT VARIES



LEVELING PAD DETAIL

NOTES:  
1. UNREINFORCED CONCRETE MUST HAVE 3000 PSI COMPRESSIVE STRENGTH, MINIMUM.  
2. 1/2" - 3/4" CRUSHED STONE OR GRAVEL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.



LEVELING PAD STEP DETAIL

**NOT FOR CONSTRUCTION  
FOR PERMITTING ONLY**



Know what's below  
Call before you dig  
1-800-781-7474 OUTSIDE S.D.

UNIVERSAL  
CAP UNIT OPTION

3 PLANE SPLIT  
CAP UNIT OPTION

**Wolverton & Associates**  
Consulting Engineers & Land Surveyors  
2020 JERRY GAN  
WOLVERTON IA  
505-338-3887  
www.wolverton-associates.com



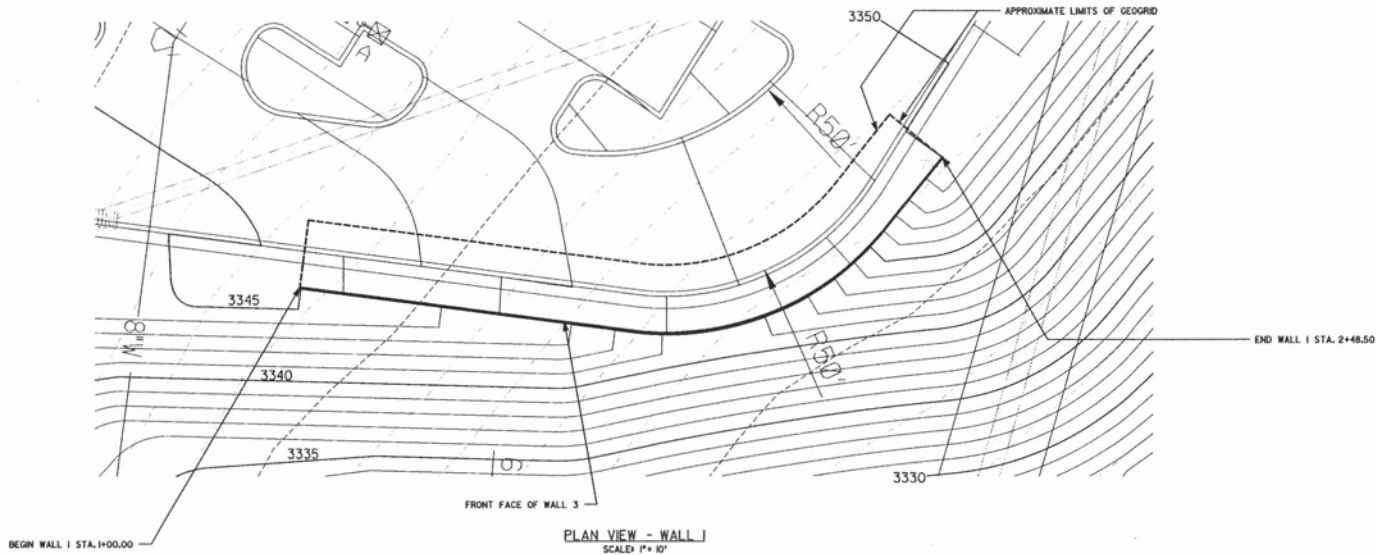
PROJECT TITLE: BLACK HILLS CENTER  
WALMART STORE #872-03  
RAPID CITY, SOUTH DAKOTA  
BY: THE STONERIDGE DEVELOPMENT  
ST. LOUIS, MISSOURI

SEGMENTAL RETAINING WALL  
DETAILS

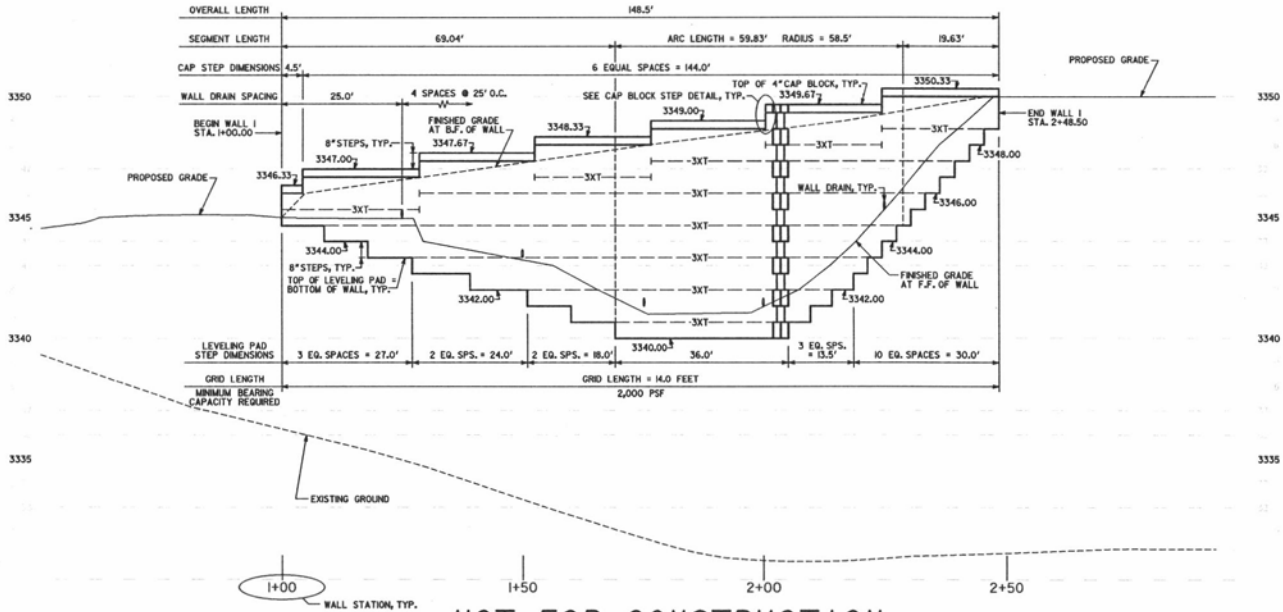
REVISIONS	BY
DRAWN BY:	K. LEWIS
DESIGNED BY:	K. LEWIS
DATE:	12-09-10
SCALE:	NO SCALE
JOB NO.:	08-140

SHEET NUMBER  
RW-2  
2 OF 7 SHEETS





PLAN VIEW - WALL 1  
SCALE: 1" = 10'

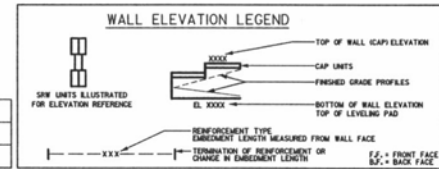


**NOT FOR CONSTRUCTION  
FOR PERMITTING ONLY**

ELEVATION VIEW - WALL 1  
SCALE: 1" = 10' HORIZONTAL 1" = 2' VERTICAL  
LOOKING AT FRONT FACE OF WALL

NOTES:  
1. HORIZONTAL DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WALL.  
2. AT TOP OF WALL, CONTRACTOR SHALL ADJUST DIMENSIONS TO ACCOUNT FOR DRIFT DUE TO WALL BATTER.  
3. SEE SHEET 10P1 FOR GENERAL NOTES.  
4. WALL CONTRACTOR TO COORDINATE WALL CONSTRUCTION WITH UTILITY AND STORM PIPE INSTALLATIONS, WHEN APPLICABLE.

GENERIC GEOSYNTHETIC REINFORCEMENT DESIGNATION	SRW UNIT WITH CORRESPONDING GEGRID MANUFACTURER'S DESIGNATION
---XKT---XKT---XKT---XKT---	KEYSTONE COMPAC 3 BLOCKS
	MRAPI MRAIGRD 3KT



Know what's below  
Call before you dig  
1-800-781-7474 OUTSIDE S.D.

**W**  
**Wolverton & Associates**  
Consulting Engineers & Land Surveyors  
616 Pioneer Drive, Suite 100, Rapid City, SD 57701  
Phone: 605/342-3877  
www.wolverton-associates.com

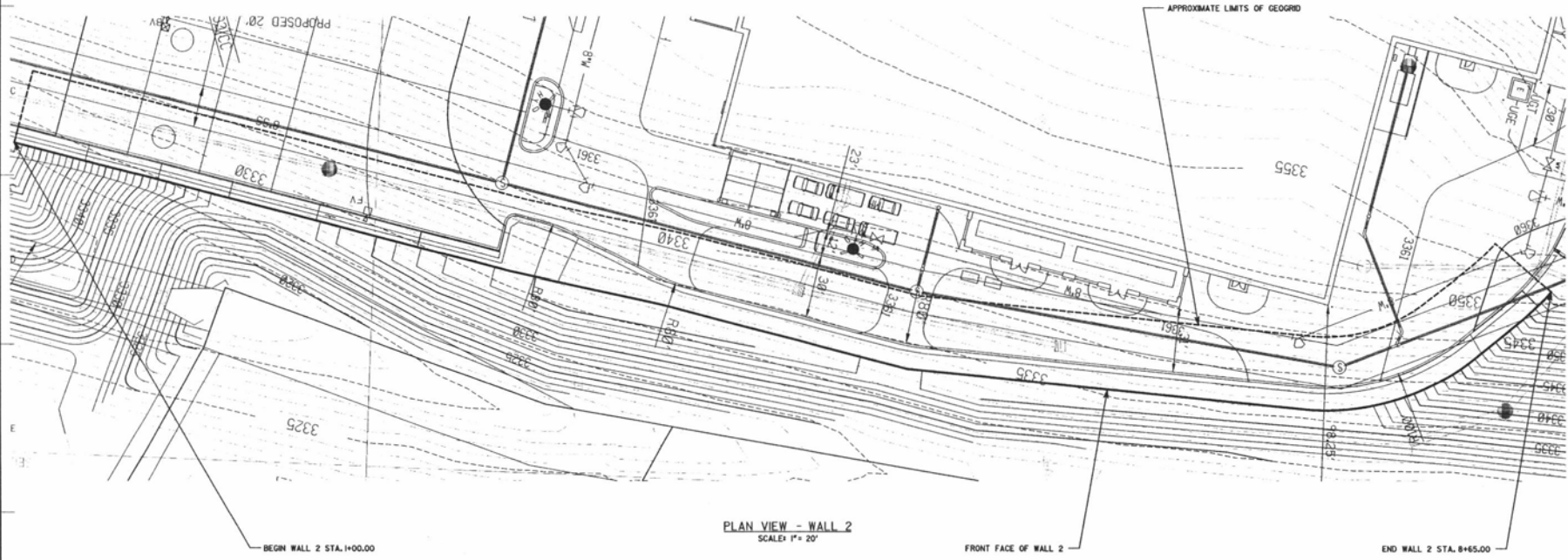


PROJECT TITLE: BLACK HILLS CENTER  
WALMART STORE #3872-03  
RAPID CITY, SOUTH DAKOTA  
BY: THE STOWERIDGE DEVELOPMENT  
ST. LOUIS, MISSOURI

RETAINING WALL No. 1  
PLAN AND ELEVATION

REVISIONS	BY
DESIGNED BY: K. LEWIS	
CHECKED BY: K. LEWIS	
DATE: 12-09-10	
SCALE: AS NOTED	
SHEET NO. 00-140	

SHEET NUMBER  
**RW-3**  
3 OF 7 SHEETS



PLAN VIEW - WALL 2  
SCALE: 1" = 20'

**NOT FOR CONSTRUCTION  
FOR PERMITTING ONLY**



Know what's below  
Call before you dig  
1-800-781-7474 OUTSIDE S.D.

NOTES:  
1. HORIZONTAL DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WALL AT TOP OF WALL. CONTRACTOR SHALL ADJUST DIMENSIONS TO ACCOUNT FOR DRIFT DUE TO WALL BATTER.  
2. SEE SHEET RW-4 FOR GENERAL NOTES.  
3. WALL CONTRACTOR TO COORDINATE WALL CONSTRUCTION WITH UTILITY AND STORM PIPE INSTALLATIONS, WHEN APPLICABLE.

**Wolverton & Associates**  
Professional Engineer  
1010 S. St. Louis  
St. Louis, MO 63104  
Phone: (314) 447-8800  
Fax: (314) 447-8870  
www.wolverton.com



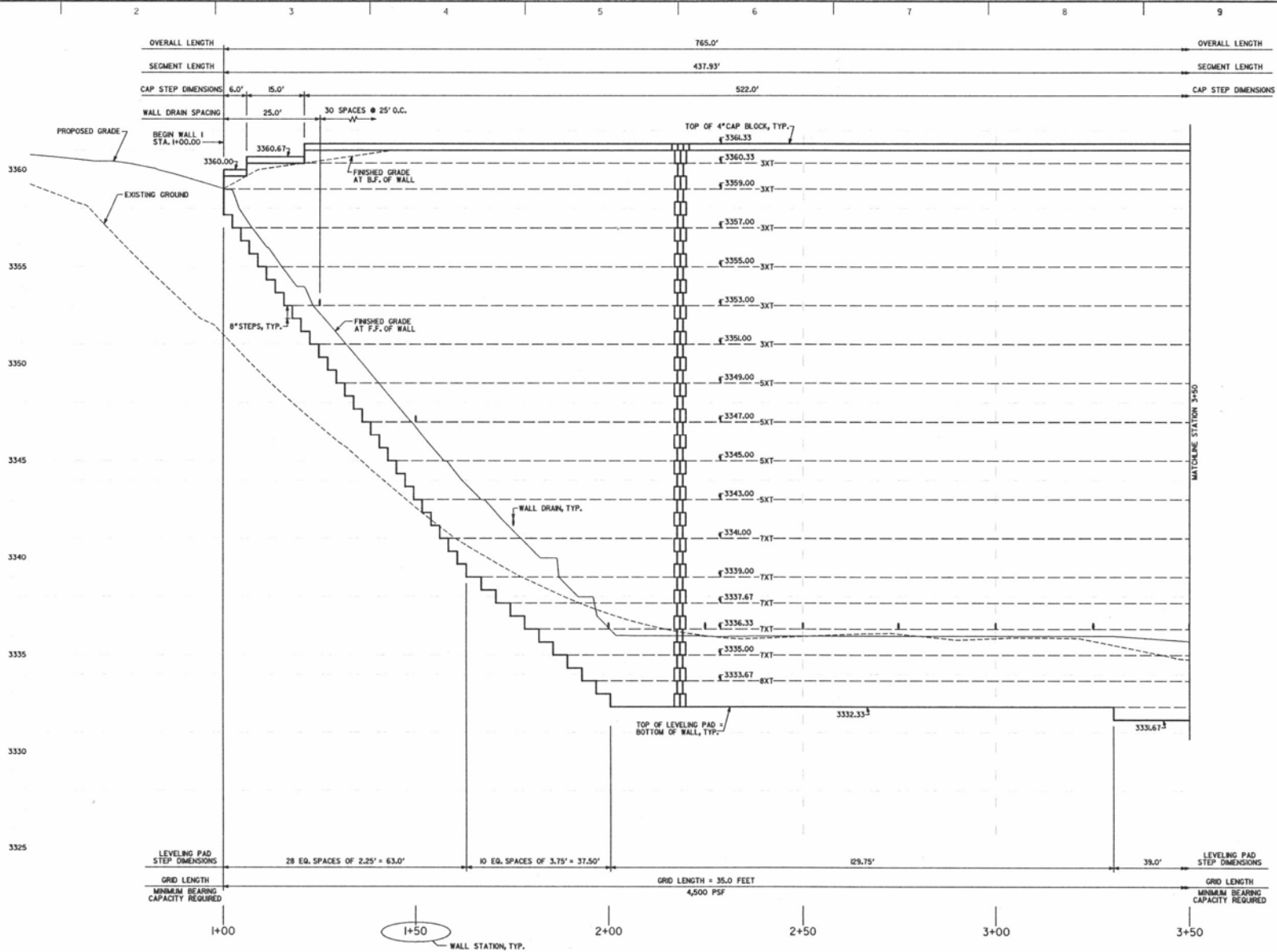
PROJECT TITLE: BLACK HILLS CENTER  
WALMART STORE #3872-03  
RAPID CITY, SOUTH DAKOTA  
BY: THE STONERIDGE DEVELOPMENT  
ST. LOUIS, MISSOURI

RETAINING WALL NO. 2  
PLAN AND ELEVATION

REVISIONS	BY
DRAWN BY:	M. LEWIS
DESIGNED BY:	M. LEWIS
DATE:	12-09-10
SCALE:	AS NOTED
JOB NO.	00-140
SHEET NUMBER	

RW-4  
4 OF 7 SHEETS



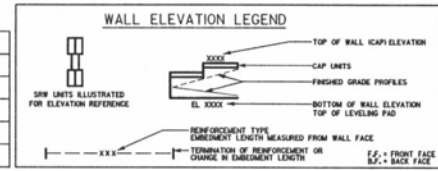


**NOT FOR CONSTRUCTION  
FOR PERMITTING ONLY**

NOTES:  
1. HORIZONTAL DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WALL.  
AT TOP OF WALL, CONTRACTOR SHALL ADJUST DIMENSIONS TO ACCOUNT FOR DIRT DUE TO WALL BATTER.  
2. SEE SHEET RW-1 FOR GENERAL NOTES.  
3. WALL CONTRACTOR TO COORDINATE WALL CONSTRUCTION WITH UTILITY AND STORM PIPE INSTALLATIONS, WHEN APPLICABLE.

**PART ELEVATION VIEW - WALL 2**  
SCALE: 1" = 10' HORIZONTAL, 1" = 2' VERTICAL  
LOOKING AT FRONT FACE OF WALL

SYMBOL	DESCRIPTION
---SKT---SKT---SKT---	GENERIC GEOSYNTHETIC REINFORCEMENT DESIGNATION
---SKT---SKT---SKT---	MIRAFI MIRAGRID SKT
---SKT---SKT---	MIRAFI MIRAGRID SKT
---TXT---TXT---TXT---	MIRAFI MIRAGRID TXT
---BKT---BKT---	MIRAFI MIRAGRID BKT
---SKT---SKT---	KEYSTONE COMPAC II BLOCKS
---SKT---SKT---	MIRAFI MIRAGRID SKT
---SKT---SKT---	MIRAFI MIRAGRID SKT
---SKT---SKT---	MIRAFI MIRAGRID SKT
---SKT---SKT---	MIRAFI MIRAGRID SKT



Know what's below  
Call before you dig  
1-800-781-7474 OUTSIDE S.D.

**Wolverton & Associates**  
Consulting Engineers & Land Surveyors  
Professional Seal No. 077675, State of Missouri  
www.wolvertonassociates.com

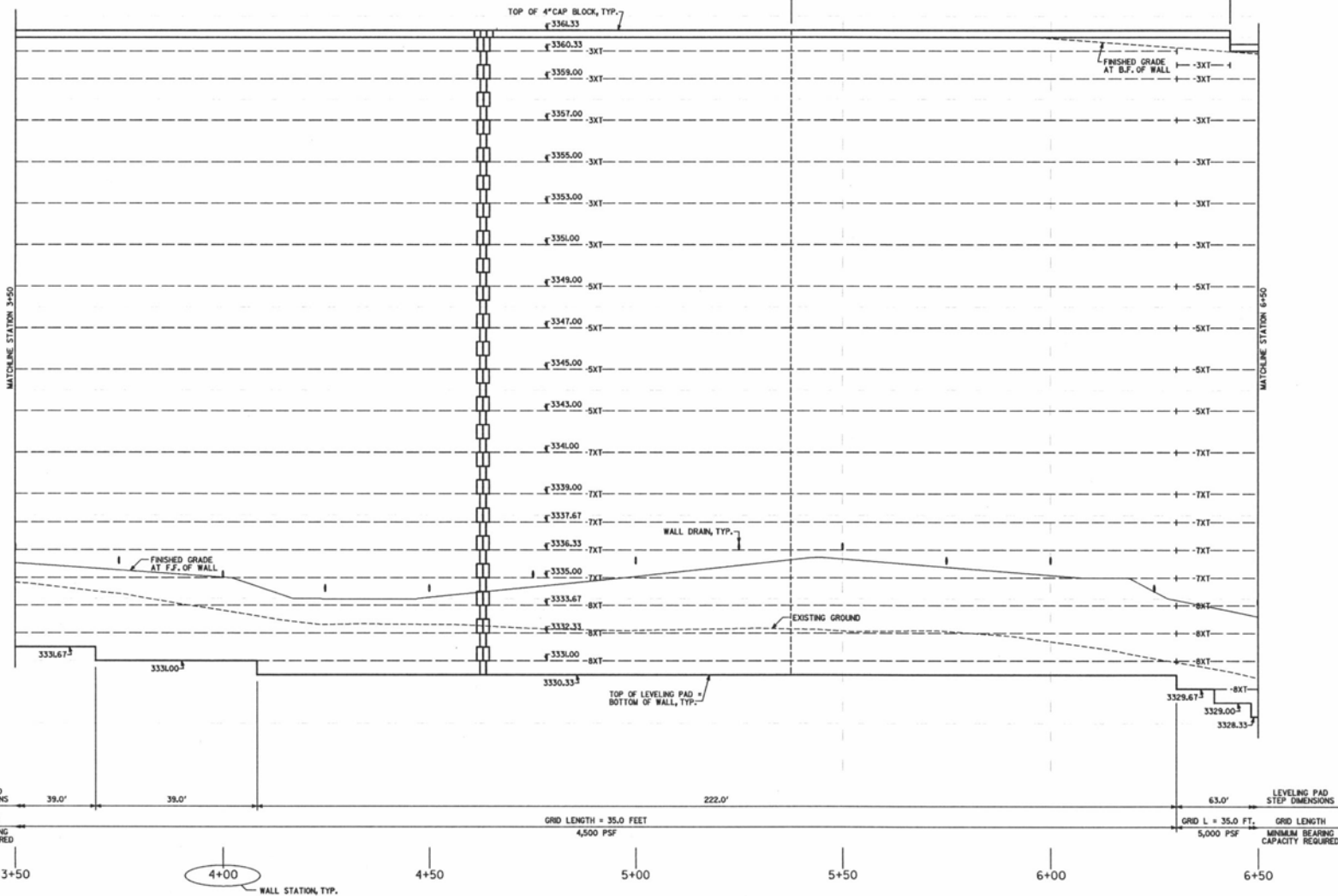


**PROJECT TITLE: BLACK HILLS CENTER**  
**WALMART STORE #872-03**  
**RAPID CITY, SOUTH DAKOTA**  
**BY: THE STONERIDGE DEVELOPMENT**  
**ST. LOUIS, MISSOURI**

**RETAINING WALL NO. 2**  
**PLAN AND ELEVATION ( 1 OF 3 )**

REVISIONS	BY
DRAWN BY: K. LEWIS	
DESIGNED BY: K. LEWIS	
DATE: 12-09-10	
SCALE: AS NOTED	
JOB NO. 08-140	
SHEET NUMBER	
<b>RW-5</b>	
5 OF 7 SHEETS	

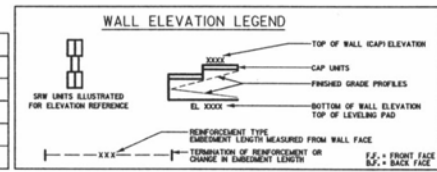
OVERALL LENGTH 765.0'  
 SEGMENT LENGTH 437.93' 190.0'  
 CAP STEP DIMENSIONS 522.0' 39.0'



**NOT FOR CONSTRUCTION  
 FOR PERMITTING ONLY**

**PART ELEVATION VIEW - WALL 2**  
 SCALE 1" = 10' HORIZONTAL 1" = 2' VERTICAL  
 LOOKING AT FRONT FACE OF WALL

GENERIC GEOMETRIC REINFORCEMENT DESIGNATION	SEE UNIT WITH CORRESPONDING REGRID MANUFACTURER'S DESIGNATION
---3XT---3XT---3XT---3XT---	KEYSTONE COMPAC II BLOCKS
---5XT---5XT---5XT---	MIRAFI MIRA90 3XT
---7XT---7XT---7XT---	MIRAFI MIRA90 5XT
---8XT---8XT---8XT---	MIRAFI MIRA90 7XT
---	MIRAFI MIRA90 8XT



NOTES:  
 1. HORIZONTAL DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WALL AT TOP OF WALL. CONTRACTOR SHALL ADJUST DIMENSIONS TO ACCOUNT FOR DRIFT DUE TO WALL BATTERS.  
 2. SEE SHEET RW-1 FOR GENERAL NOTES.  
 3. WALL CONTRACTOR TO COORDINATE WALL CONSTRUCTION WITH UTILITY AND STORM PIPE INSTALLATIONS, WHEN APPLICABLE.



Know what's below  
 Call before you dig  
 1-800-781-7474 OUTSIDE S.D.

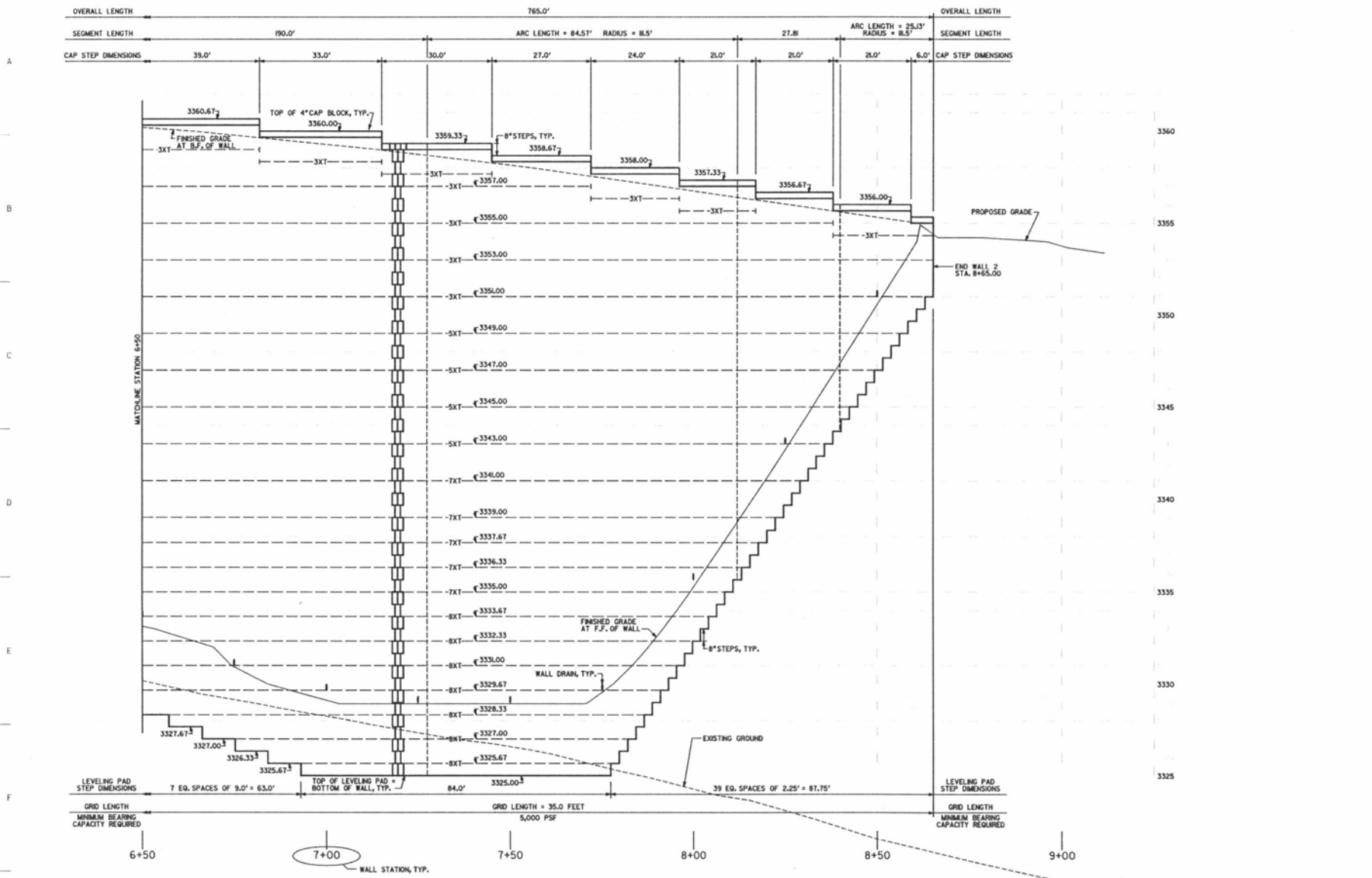
**Wolverton & Associates**  
 Consulting Engineers  
 Land Surveyors  
 600 North 7th Street, Suite 100  
 Rapid City, SD 57701  
 Phone: (605) 474-3333  
 Fax: (605) 474-3337  
 www.wolverton-associates.com



PROJECT TITLE: BLACK HILLS CENTER  
 WALMART STORE #3872-03  
 RAPID CITY, SOUTH DAKOTA  
 BY: THF STONERIDGE DEVELOPMENT  
 ST. LOUIS, MISSOURI

RETAINING WALL No. 2  
 PLAN AND ELEVATION (2 OF 3)

REVISIONS BY  
 DRAWN BY: M. LEWIS  
 DESIGNED BY: M. LEWIS  
 DATE: 12-09-10  
 SCALE: AS NOTED  
 JOB NO. 08-140  
 SHEET NUMBER  
**RW-6**  
 6 OF 7 SHEETS

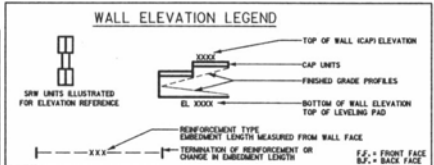


**NOT FOR CONSTRUCTION  
FOR PERMITTING ONLY**

**PART ELEVATION VIEW - WALL 2**  
SCALE: 1" = 10' HORIZONTAL; 1" = 2' VERTICAL  
LOOKING AT FRONT FACE OF WALL

**NOTES:**  
1. HORIZONTAL DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WALL AT TOP OF WALL. CONTRACTOR SHALL ADJUST DIMENSIONS TO ACCOUNT FOR DIRT DUE TO WALL BATTER.  
2. SEE SHEET RW-1 FOR GENERAL NOTES.  
3. WALL CONTRACTOR TO COORDINATE WALL CONSTRUCTION WITH UTILITY AND STORM PIPE INSTALLATIONS, WHEN APPLICABLE.

REINFORCEMENT DESIGNATION	GRID MANUFACTURER'S DESIGNATION
---SXT---SXT---SXT---SXT---	MRAFI MRAIGRD SXT
---SXT---SXT---SXT---SXT---	MRAFI MRAIGRD SXT
---TXT---TXT---TXT---TXT---	MRAFI MRAIGRD TXT
---EXT---EXT---EXT---EXT---	MRAFI MRAIGRD EXT



**811**  
Know what's below  
Call before you dig  
1-800-781-7474 OUTSIDE S.D.

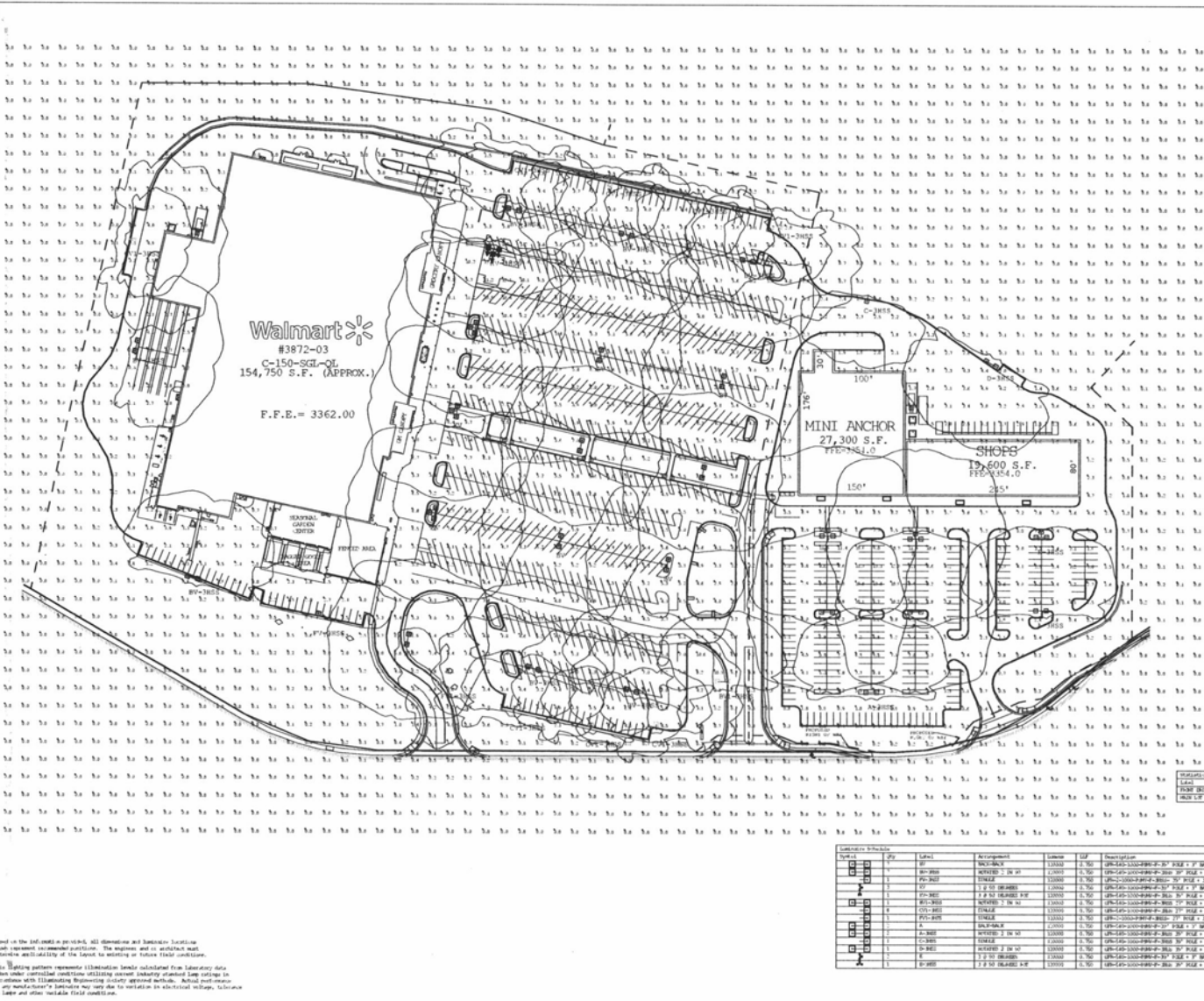
**Wolverton & Associates**  
Consulting Engineers & Land Surveyors  
Professional Registration No. 198  
P.L. No. 10700  
10700  
10700



PROJECT TITLE: BLACK HILLS CENTER  
WALMART STORE #3872-03  
RAPID CITY, SOUTH DAKOTA  
BY: THF STONERIDGE DEVELOPMENT  
ST. LOUIS, MISSOURI

RETAINING WALL NO. 2  
PLAN AND ELEVATION (3 OF 3)

REVISIONS	BY
DESIGNED BY: K. LEWIS	
DRAWN BY: K. LEWIS	
DATE: 12-09-10	
SCALE: AS NOTED	
JOB NO. 08-100	
SHEET NUMBER	
<b>RW-7</b>	
1 OF 7 SHEETS	



GREENBRIAR  
FLAT LENS  
IESNA FULL CUTOFF

**Lei INDUSTRIES™**  
LIGHTS KEEPERS NATIONAL ACCOUNT GROUP  
1000 MILLER RD., S. W. #100 ATLANTA, GA 30329  
404-544-7000 FAX: 404-544-7001  
WWW.LEIINDUSTRIES.COM

Material Area Summary

Label	Qty	Rate	Rate	Qty Min	Rate Min
MINI ANCHOR	1.00	12.4	12.4	1.00	12.40
WALMART	1.00	12.4	12.4	1.00	12.40
TOTAL	2.00	12.4	24.8	2.00	24.80

Submittal Schedule

Item #	Qty	Label	Accommod	Package	QTY	Description	Scale	Submit
1	1	MINI-ANCHOR	MINI-ANCHOR	1.00	1.00	MINI-ANCHOR 27,300 S.F.	1" = 30'	12/08/2010
2	1	WALMART	WALMART	1.00	1.00	WALMART 154,750 S.F.	1" = 30'	12/08/2010



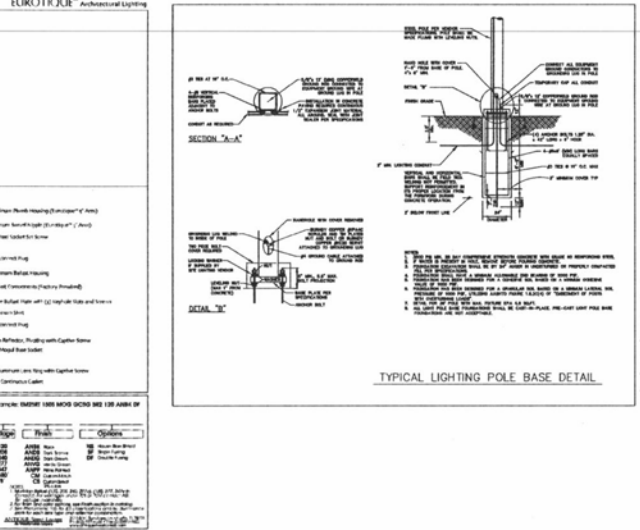
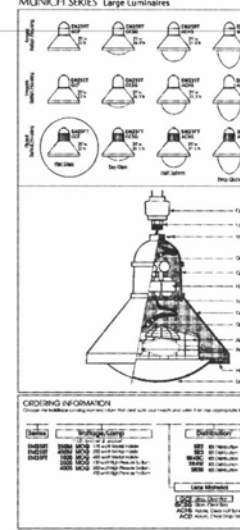
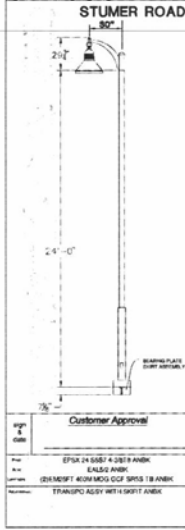
Based on the information provided, all dimensions and Submittal Schedule show represent recommended partitions. The engineer and architect must determine applicability of the layout to existing or future field conditions.  
This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry approved methods. Actual performance of any manufacturer's fixtures may vary due to variations in electrical voltage, distance to lamps and other variable field conditions.

NOT FOR CONSTRUCTION

PROPOSED BLACK HILLS CENTER  
Walmart # 3872-03  
RAPID CITY, PENNINGTON COUNTY, S.D.  
BY: THF, STONERIDGE DEVELOPMENT, LLC  
ST. LOUIS, MO

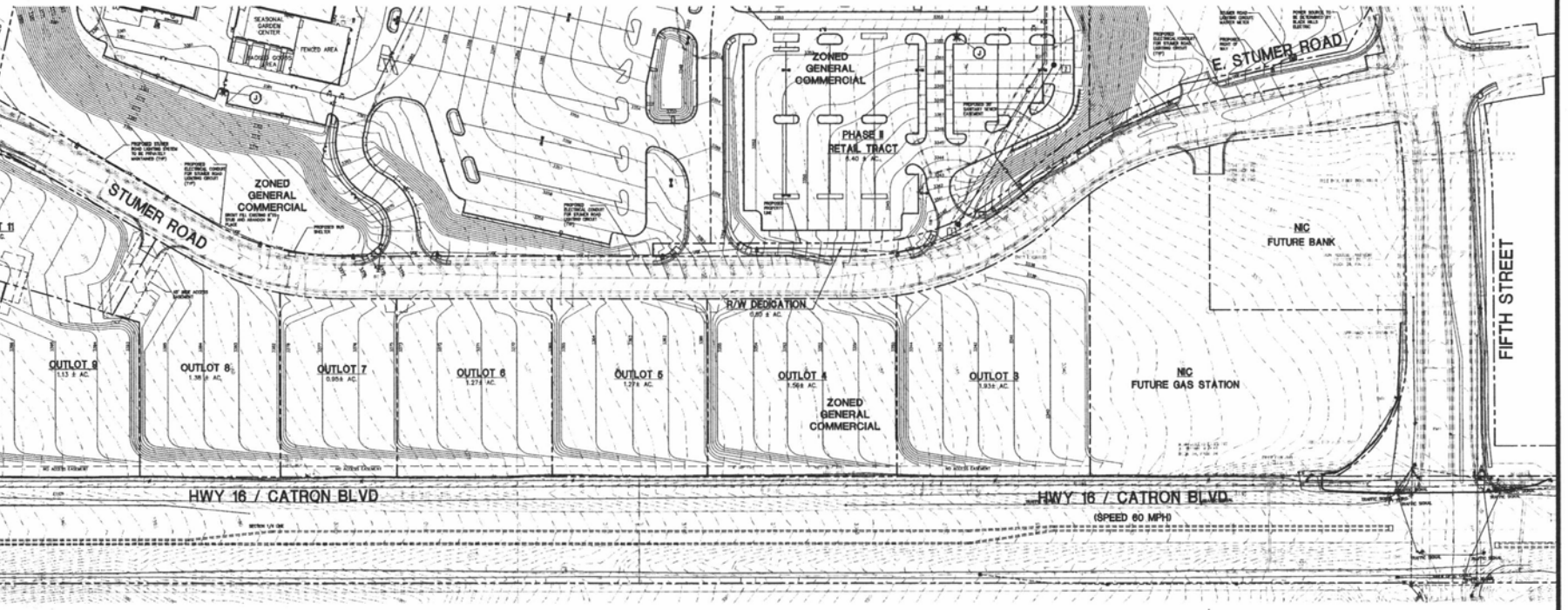
DRAWN BY: GMB/CRP  
CHECKED BY: KJW  
DATE: 12/08/2010  
SCALE:  
JOB NO.: 09-140  
SHEET NUMBER: SL-1  
OF SHEETS

**Wolverton & Associates**  
Consulting Engineers & Land Surveyors  
1100 North Perry Ave., Suite 200, Rapid City, South Dakota 57701  
Phone: (605) 342-2222 Fax: (605) 342-2223  
www.wolvertonassociates.com



Wolvertson & Associates  
 Consulting Engineers & Land Surveyors  
 4145 Sunset Prairie Blvd. - Suite 100 - Omaha, Nebraska 68128  
 Phone: 402-491-2000  
 Fax: 402-491-2001  
 www.wolvertson-associates.com

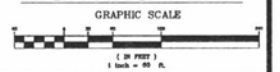
Professional Engineer  
 State of Nebraska  
 License # 010577



PROPOSED BLACK HILLS CENTER  
 Walmart # 3872-03  
 RAPID CITY, PENNINGTON COUNTY, S.D.  
 BY: THF, STONERIDGE DEVELOPMENT, LLC  
 ST. LOUIS, MO

REVISIONS	BY

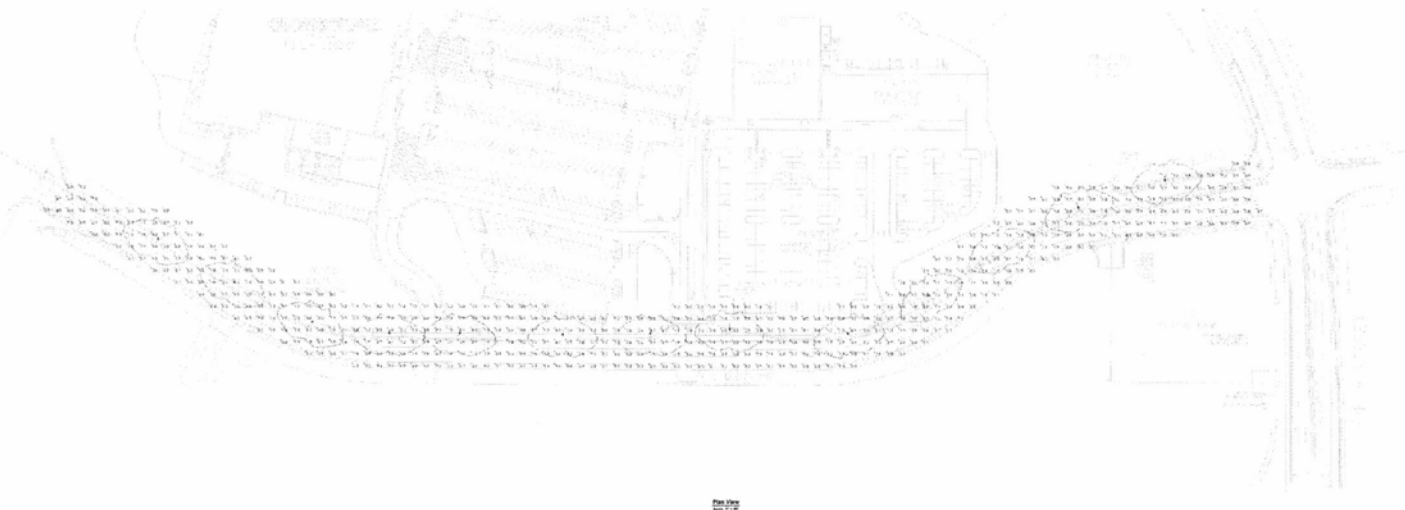
DRAWN BY: DMN  
 CHECKED BY: KJW  
 DATE: 08/15/2010  
 SCALE: 1" = 80'  
 JOB NO.: 08-140  
 SHEET NUMBER: SR-L  
 OF SHEETS: 2



STATISTICS							
Description	Symbol	Qty	Vol.	Surf.	Weight	Length	
10-200		7	5.00	0.75	104	61.4	307.0

LUMINAIRE SCHEDULE							
Number	Code	Qty	Capacity/Model	Description	Height	Foot Candles/LLX	Notes
1	11	1	100WATT	100WATT	100WATT	100WATT	100WATT

NOTES  
1. Refer to Appendix B.



Rapid City  
South Dakota  
August 18, 2010

Designer  
Jennifer Wolf  
Date  
Aug 18 2010  
Scale  
Drawing No.

1 of 1

NOT FOR CONSTRUCTION

REVISIONS	BY

DRAWN BY DMN/CRP  
CHECKED BY K/JW  
DATE: 12/09/2010  
SCALE:  
JOB NO. 08-140  
SHEET NUMBER

1 OF 1  
OF SHEETS

PROPOSED BLACK HILLS CENTER  
Walmart # 3872-03  
RAPID CITY, PENNINGTON COUNTY, S.D.  
BY: THE STONERIDGE DEVELOPMENT, LLC  
ST. LOUIS, MO

**W**  
Wolverton & Associates  
ENGINEERS ARCHITECTS PLANNERS  
INC.  
1000 W. 10TH ST. SUITE 400  
RAPID CITY, SD 57701  
PHONE 605-372-0000 • FAX 605-372-0001  
WWW.WOLVERTON-ASSOCIATES.COM