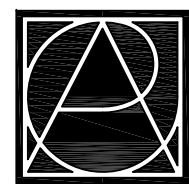


Main Street Square Site Development Rapid City, South Dakota [City Project #]



50% Construction Documents
June 23, 2010



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Destination Rapid City
606 Main Street, Rapid City, SD 57701
TE [605] 716-7979 FX [605] 341-6415

CONSULTANTS:

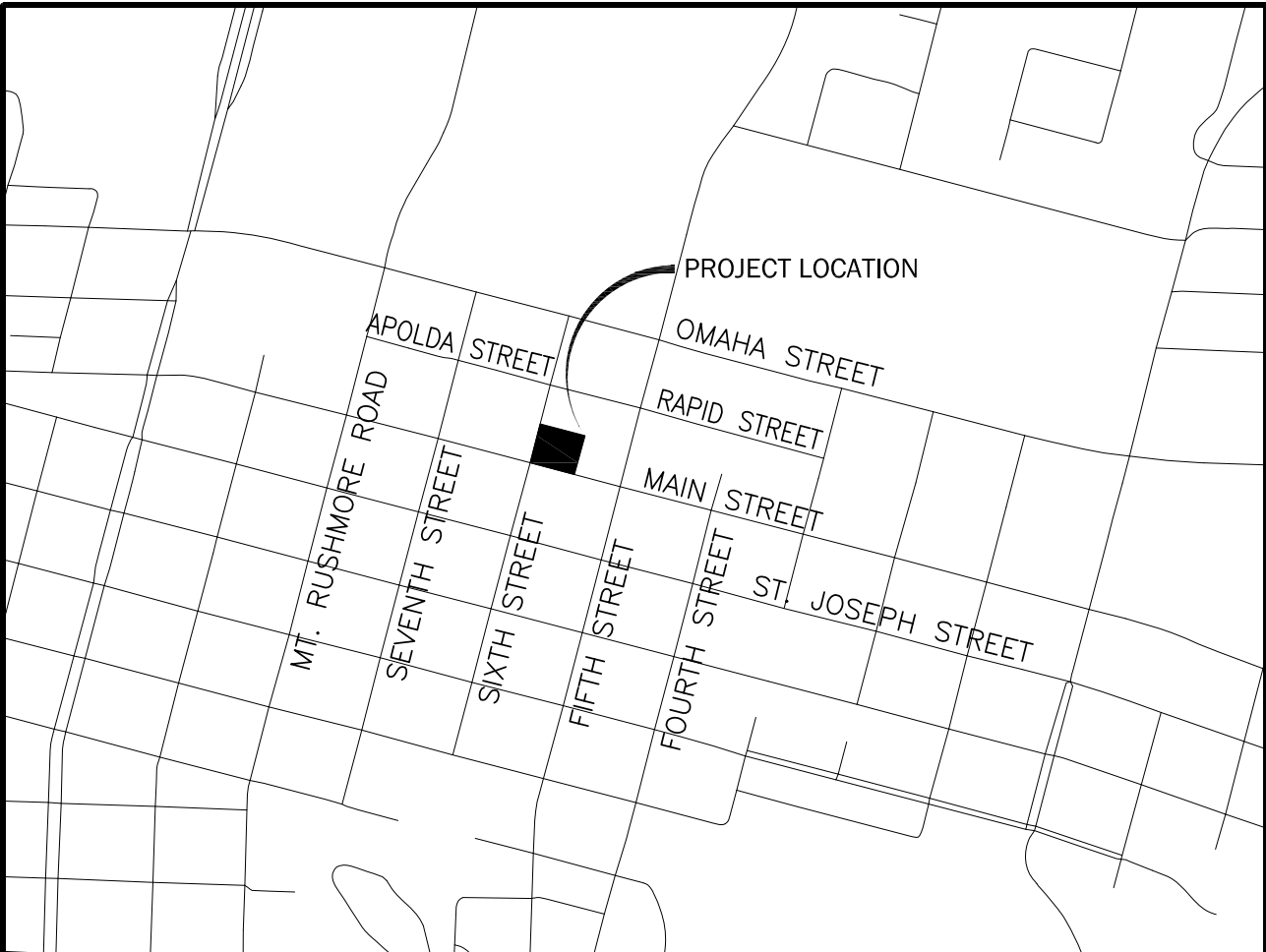
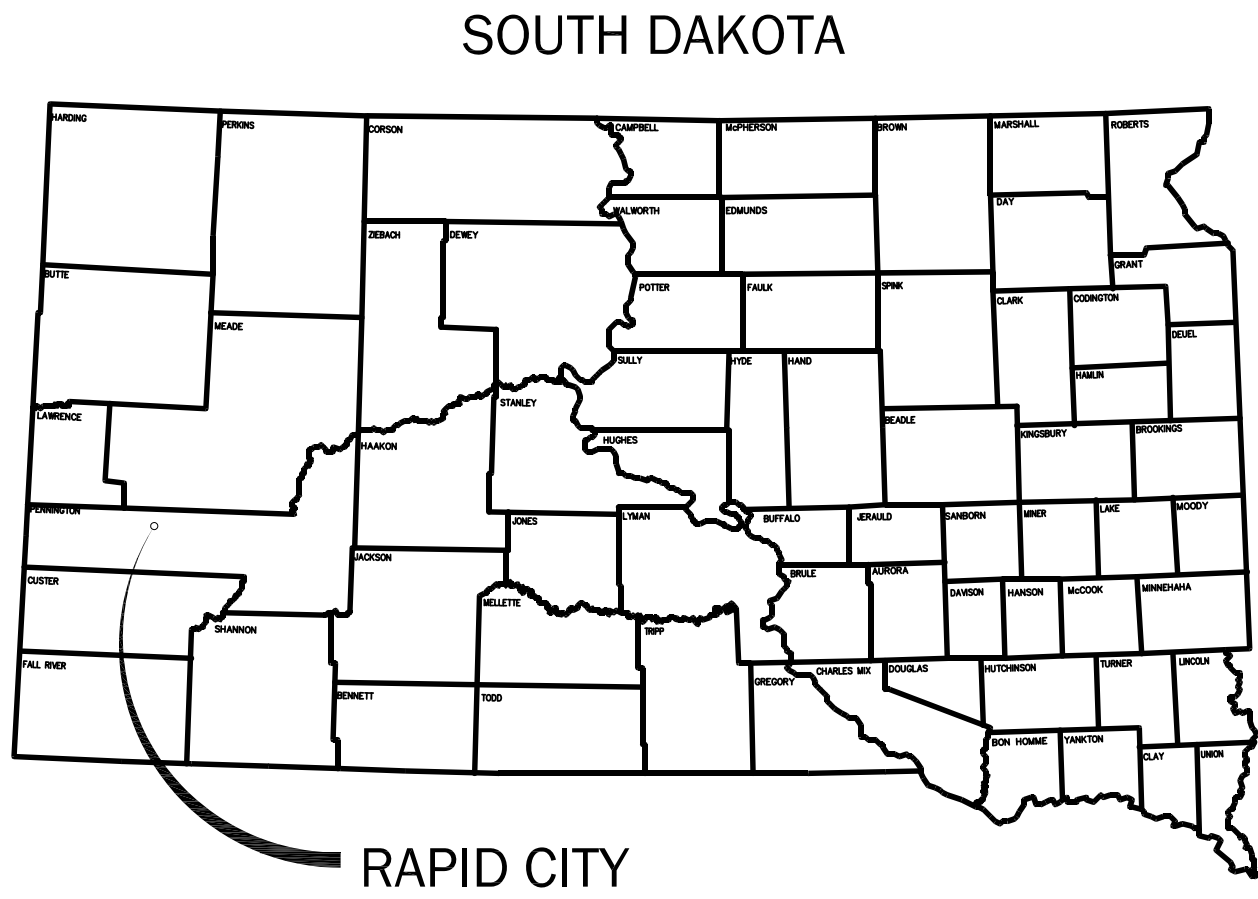
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PROJECT:

Main Street Square
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Rapid City, South Dakota

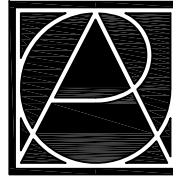


PROJECT LOCATION MAP

NOT TO SCALE

SHEET INDEX:	
SHEET NO.	SHEET TITLE
	COVER
	INDEX
SD 1.00	OVERALL IMPROVEMENT PLAN
SD 1.01	TOPOGRAPHIC SURVEY
SD 2.00	DEMOLITION PLAN
SD 3.01	GENERAL NOTES
SD 3.02	CIVIL LAYOUT PLAN
SD 3.10	SITE LAYOUT KEYNOTE PLAN
SD 3.11	SITE LAYOUT DIMENSION PLAN
SD 3.20	PLAN ENLARGEMENTS AND ELEVATIONS
SD 4.01	CIVIL GRADING PLAN
SD 4.02	SITE GRADING PLAN
SD 4.03	CIVIL DRAINAGE PLAN (NOT INCLUDED)
SD 4.04	CIVIL DRAINAGE DETAILS (NOT INCLUDED)
SD 5.01	SITE DETAILS
SD 5.02	SITE DETAILS
SD 5.03	SITE DETAILS
SD 5.21	BLACK HILLS SPIRE
SD 5.22	BADLANDS SPIRE
SD 5.23	BLACK HILLS STONE
SD 5.24	BADLANDS STONE
SD 6.01	PLANTING PLAN
SD 6.02	PLANTING DETAILS AND NOTES
SD 6.03	IRRIGATION PLAN
SD 6.04	IRRIGATION DETAILS AND NOTES

SHEET INDEX:	
SHEET NO.	SHEET TITLE
A 1.00	FLOOR PLAN
A 1.01	REFLECTED CEILING PLAN
A 2.00	EXTERIOR ELEVATIONS
A 3.00	BUILDING SECTIONS
A 5.00	INTERIOR ELEVATIONS
E 0.00	ELECTRICAL LEGEND AND SHEET INDEX
E 1.10	SITE LIGHTING PLAN
E 1.20	SITE POWER PLAN
E 1.30	SITE SIGNAL PLAN
E 2.10	ELECTRICAL FLOOR PLANS
E 2.20	ELECTRICAL SCHEDULES AND RISERS
ED 1.10	ELECTRICAL SITE DEMO PLAN
M 0.00	MECHANICAL LEGEND AND SHEET INDEX
M 1.00	UNDER FLOOR PLUMBING PLAN
M 1.10	MECHANICAL PIPING AND PLUMBING PLAN
M 2.10	HVAC PLAN
M 3.10	MECHANICAL SITE PLAN
M 4.00	MECHANICAL DETAILS & PLUMBING RISERS
M 5.00	MECHANICAL SCHEDULES
ME 1.00	MECHANICAL / ELECTRICAL SCHEDULES



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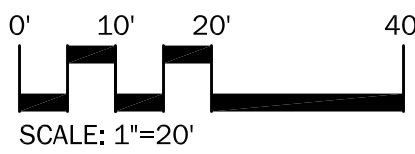
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PROJECT:

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Rapid City, South Dakota**

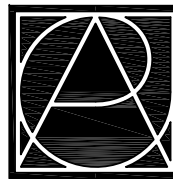


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DRAWING NAME	
Project Location & Index of Drawings	
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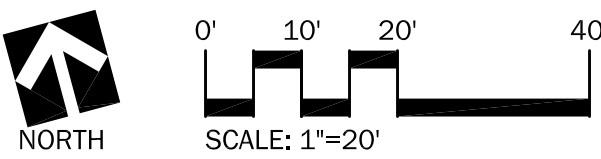
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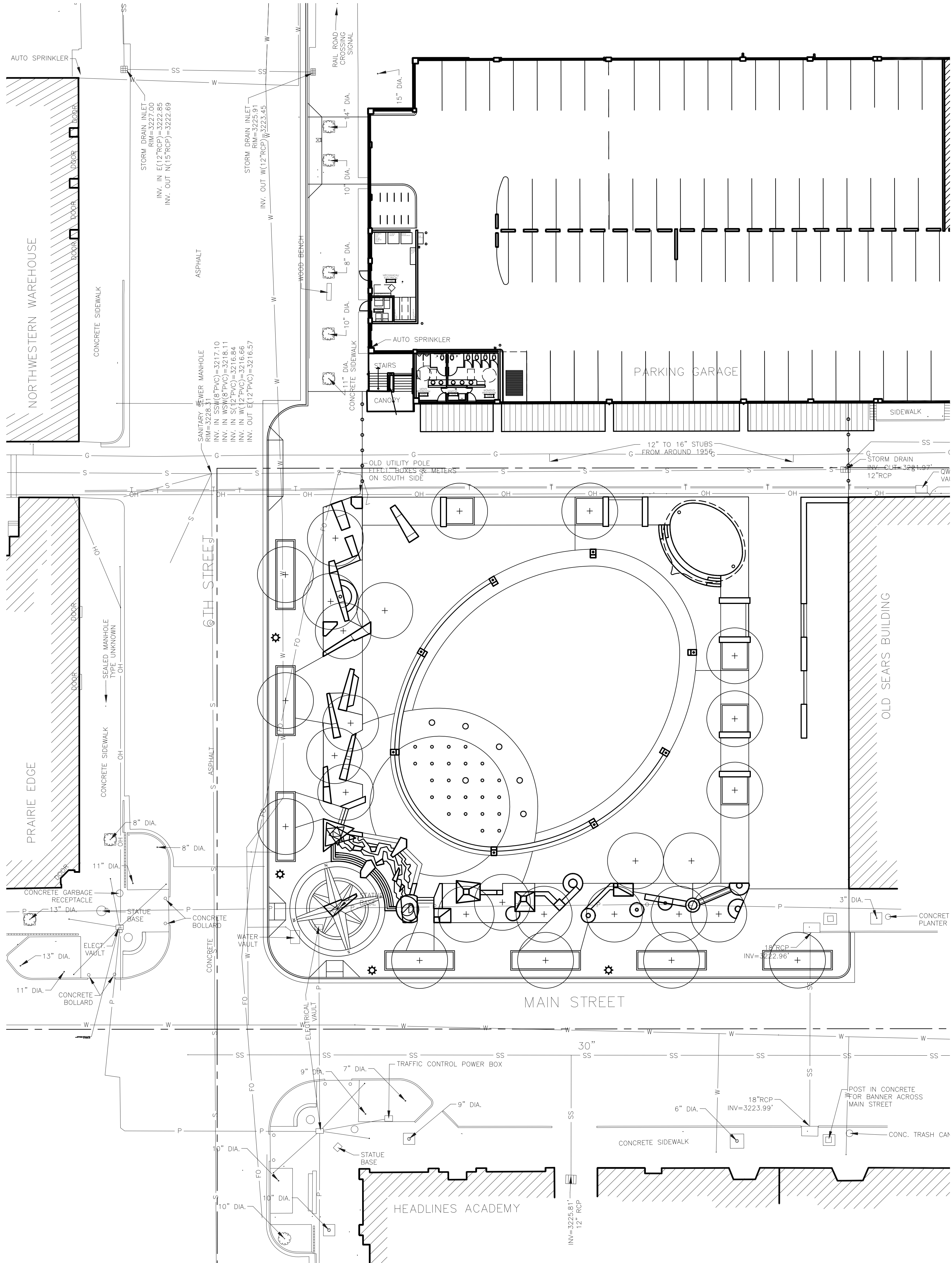


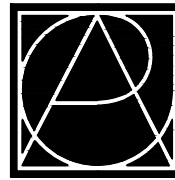
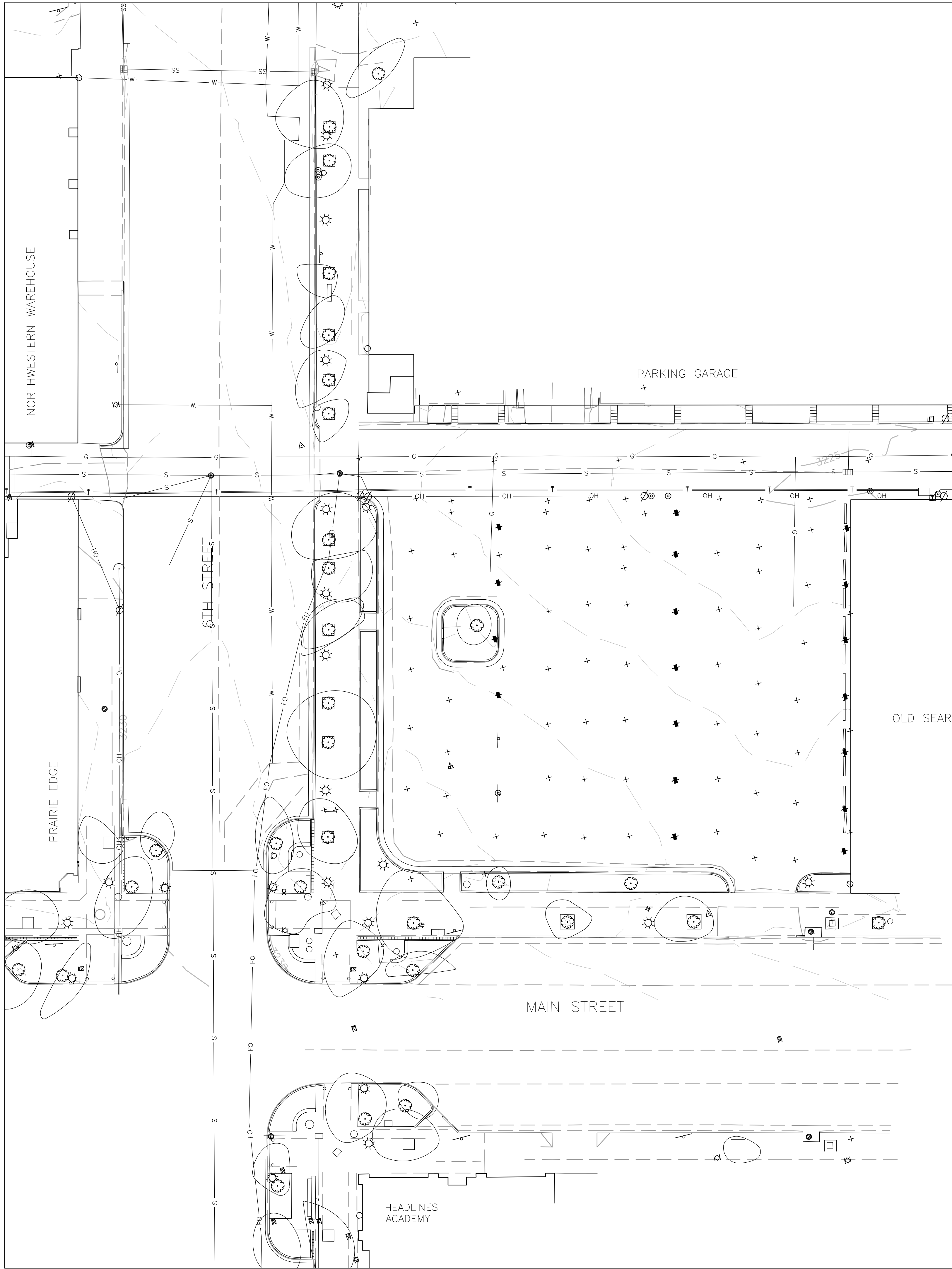
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Overall Site Plan	
CERTIFICATION:	
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	Project No.: 091131
	Date: June 23, 2010
	Drawn by: PMA
	Checked by: DDR
File: 1131_SD1.00.dwg	
DRAWING #:	

SD 1.00





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Destination Rapid City
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PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**



0' 10' 20' 40'
SCALE: 1"=20'

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DRAWING NAME:

Topographical Survey

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City #:
Project No.: 091131
Date: June 23, 2010
Drawn by: CME
Checked by: EAH
File: 1592-L02-SURVEY.dwg
DRAWING #:

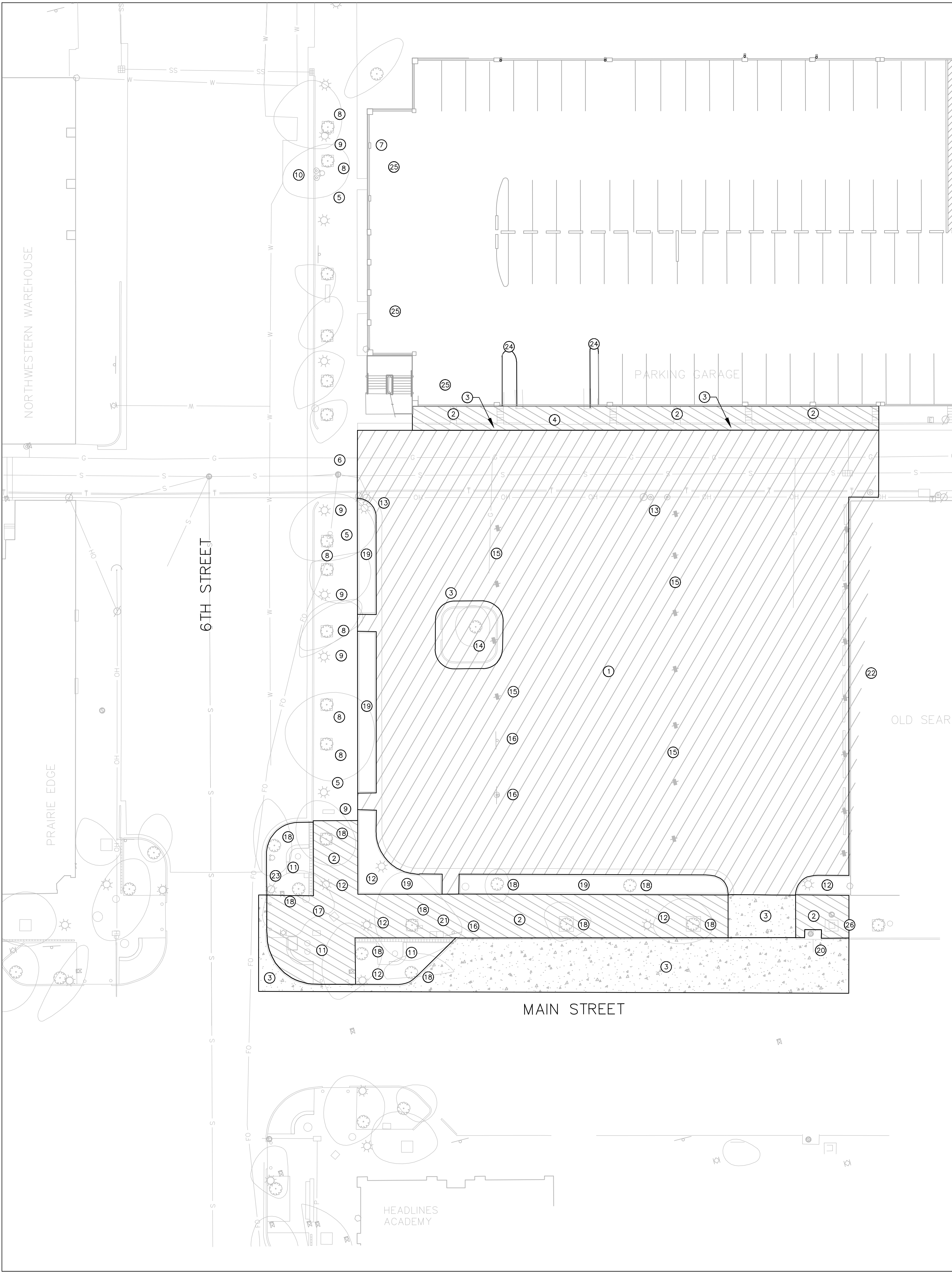
SD 1.01

GENERAL NOTES:

1. THE CONTRACTOR SHALL REPORT IMMEDIATELY TO THE OWNER AND LANDSCAPE ARCHITECT ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS SHOWN ON THESE PLANS AND ACTUAL FIELD CONDITIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITY TO EXISTING SITE ELEMENTS THAT ARE TO REMAIN.
3. THE CONTRACTOR SHALL SMOOTHLY SAW CUT EXISTING PAVEMENTS TO BE REMOVED FROM PAVEMENTS TO REMAIN.
4. OWNER SHALL HAVE FIRST RIGHTS TO ALL SALVAGED MATERIALS. COORDINATE WITH OWNER AND TRANSPORT SALVAGED ITEMS TO THE OWNER DESIGNATED STORAGE AREA, IF OWNER RETAINED. ALL OTHER ITEMS SHALL BE HAULED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.
5. IF ANY OTHER UTILITIES ARE ENCOUNTERED BUT NOT SHOWN ON THE SITE PLAN CONTACT THE OWNER AND UTILITY COMPANY IMMEDIATELY.
6. COORDINATE ALL DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS WITH THE OWNER.
7. CONTRACTOR SHALL MAINTAIN EXISTING UTILITIES AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS. ANY DISRUPTION IN SERVICE SHALL BE COORDINATED WITH THE OWNER. CONTRACTOR SHALL PROVIDE A METHOD OF TEMPORARY SERVICE DURING PERIODS OF DISRUPTION.
8. ALL EROSION CONTROL BMPs SHALL BE IN PLACE PRIOR TO DEMOLITION.
9. DO NOT DISTURB ANY TREES OR STRUCTURES NOT DESIGNATED TO BE REMOVED.

DEMOLITION ITEMS

- 1 REMOVE EXISTING ASPHALT PAVEMENT.
- 2 REMOVE EXISTING CONCRETE SIDEWALK.
- 3 REMOVE EXISTING CONCRETE PAVEMENT, CONCRETE CURB AND GUTTER, AND CONCRETE FILLET.
- 4 REMOVE EXISTING CONCRETE APPROACH AND P-GUTTER TO PARKING RAMP.
- 5 COORDINATE REMOVAL OF EXISTING SIDEWALKS WITH THE 6TH STREET RECONSTRUCTION PROJECT.
- 6 COORDINATE THE REMOVAL OF EXISTING CONCRETE APPROACH PAVEMENT WITH THE 6TH STREET RECONSTRUCTION PROJECT.
- 7 REMOVE NON STRUCTURAL COLUMN.
- 8 COORDINATE THE REMOVAL OF EXISTING TREES WITH THE 6TH STREET RECONSTRUCTION PROJECT.
- 9 COORDINATE THE REMOVAL OF EXISTING STREETLIGHTS WITH THE 6TH STREET RECONSTRUCTION PROJECT.
- 10 COORDINATE THE REMOVAL OF EXISTING FIRE HYDRANT AND BOLLARDS WITH THE 6TH STREET RECONSTRUCTION PROJECT.
- 11 REMOVE ALL EXISTING NODE FEATURES. COORDINATE THE REMOVAL OF NODE PLANTINGS AND PEA GRAVEL WITH THE 6TH STREET RECONSTRUCTION PROJECT - COORDINATE NODE FEATURE REMOVALS WITH THE CITY OF RAPID CITY.
- 12 STREET LIGHT REMOVAL - SEE ELECTRICAL SHEETS.
- 13 POWER POLE AND POWER LINE REMOVAL - SEE ELECTRICAL SHEETS.
- 14 SALVAGE AND TRANSPLANT EXISTING TREE - COORDINATE WITH THE CITY OF RAPID CITY.
- 15 REMOVE AND SALVAGE EXISTING PARKING METER - COORDINATE WITH THE CITY OF RAPID CITY.
- 16 REMOVE AND SALVAGE EXISTING SIGN.
- 17 REMOVE AND SALVAGE EXISTING PRESIDENT STATUE - COORDINATE WITH THE CITY OF PRESIDENTS ASSOCIATION.
- 18 REMOVE EXISTING TREE.
- 19 REMOVE EXISTING PLANTER.
- 20 REMOVE EXISTING INLET.
- 21 REMOVE AND SALVAGE EXISTING MAILBOXES - COORDINATE WITH THE POSTAL SERVICE.
- 22 EXISTING SEARS BUILDING - DO NOT DISTURB.
- 23 EXISTING TRAFFIC SIGNAL LIGHT AND POLE - DO NOT DISTURB.
- 24 REMOVE EXISTING CURB AND SIDEWALK.
- 25 REMOVE EXISTING STRIPING.
- 26 EXISTING BANNER POLE - DO NOT DISTURB.
- 27 REMOVE EXISTING CURB AND GUTTER.



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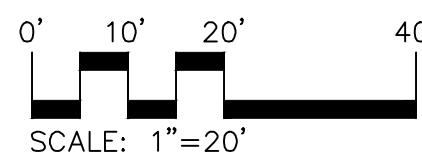
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PROJECT:

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Site Development
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REVISIONS:

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Demolition Plan

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Drawn by: CME
Checked by: EAH
File: 1592-LO2-DEM001.dwg
DRAWING #:

SD 2.00

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REA GENERAL NOTES:

ALL SITE WORK SHALL BE IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS (DOES NOT INCLUDE SECTION 7 GENERAL CONDITIONS) OF THE CITY OF RAPID CITY STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION CURRENT EDITION, EXCEPT AS SPECIFIED IN THE PROJECT PLANS AND BID DOCUMENTS. THESE SPECIFICATIONS ARE AVAILABLE AT THE CITY'S WEB SITE AT HTTP://WWW.RCGOV.ORG.

CONTRACTOR SHALL ADHERE TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT FOR THIS PROJECT PREPARED BY TERRACON CONSULTING, INC. AND DATED JULY 17, 2009 AND ANY ADDENDUMS. THE CONTRACTOR SHALL CONSTRUCT THE SITE IMPROVEMENTS BASED UPON THE APPROVED PLANS AND SPECIFICATIONS. THE GEOTECHNICAL ENGINEER REPORT SHALL BE USED AS A REFERENCE ONLY. IF ANY CONFLICTS OR DISCREPANCIES OCCUR, CONTACT THE ARCHITECT/ENGINEER FOR DIRECTION.

CONTRACTOR SHALL UTILIZE THE SOUTH DAKOTA ONE CALL NOTIFICATION PROCESS TO PROVIDE ADVANCE NOTICE FOR ALL UTILITY LOCATIONS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

ALL ASPHALT AND CONCRETE TO BE REMOVED SHALL BE SAW CUT FULL DEPTH.

ALL SALVAGED MATERIALS SHALL BE THE PROPERTY OF THE OWNER UNLESS OTHERWISE NOTED. CONTRACTOR SHALL TRANSPORT OWNER SALVAGED MATERIALS TO STORAGE AREA. ALL OTHER MATERIALS NOT WANTED BY OWNER SHALL BE HAULED AND DISPOSED OF OFF-SITE BY CONTRACTOR.

A STAGING/STOCKPILE AREA FOR MATERIALS AND/OR EQUIPMENT IS PROVIDED AND SHOWN ON THE PLANS. THE AREA ON-SITE IS VERY LIMITED AND SOME STOCKPILING OF MATERIALS MAY BE REQUIRED OFF-SITE. THE CONTRACTOR IS RESPONSIBLE FOR THE SECURITY AND PROTECTION OF ALL STORED MATERIALS. THE CONTRACTOR SHALL RECLAIM THE DISTURBED AREA(S) TO THE SATISFACTION OF THE OWNER AND ENGINEER.

CONTRACTOR SHALL MAINTAIN STORMSEWER PROFILES AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AFTER TRENCHING AND BACKFILL.

IF WATER FROM TEMPORARY DE-WATERING WILL BE DISCHARGED TO WATERS OF THE STATE DURING CONSTRUCTION, CONTRACTOR MUST FIRST GET COVERAGE UNDER THE DEPARTMENT'S GENERAL PERMIT FOR TEMPORARY DE-WATERING. FOR MORE INFORMATION CONTACT AL SPANGLER AT (605) 773-3351.

THE CONTRACTOR WILL BE REQUIRED TO OBTAIN COVERAGE UNDER THE DEPARTMENT'S GENERAL STORMWATER CONSTRUCTION PERMIT, SINCE THE PROJECT WILL DISTURB 1 ACRE OR MORE IN LAND AREA. CONTACT SD D.E.N.R. AT 1-800-737-8676 FOR INFORMATION. THE CONTRACTOR WILL ALSO NEED TO COMPLY WITH "CHAPTER 1 - EROSION AND SEDIMENT CONTROL" FROM THE CITY OF RAPID CITY'S STORMWATER QUALITY MANUAL.

ADEQUATE PROVISIONS SHALL BE MADE FOR MAINTAINING THE FLOW OF DRAINS AND WATER COURSES ENCOUNTERED DURING ANY CONSTRUCTION. CULVERTS, DITCHES AND STRUCTURES WHICH ARE DISTURBED BY THIS CONSTRUCTION SHALL BE SATISFACTORILY RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE WORK.

TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MUTCD.

ALL POROUS LANDSCAPE DETENTION AREA (PLDs) MUST BE CONSTRUCTED AFTER ASPHALT AND CURB AND GUTTER IS COMPLETE TO PREVENT SILT FROM PLUGGING THE PLD.

EXCAVATION NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL EXCAVATION, TRENCHING AND SHORING, AND THE LIKE SHALL BE PERFORMED IN A MANNER THAT MEETS WITH THE OSHA DEPARTMENT OF LABOR, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION AND STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE A DESIGN PREPARED BY A REGISTERED PROFESSIONAL ENGINEER FOR A SHORING/PROTECTION SYSTEM FOR ALL EXCAVATIONS GREATER THAN 20' OF DEPTH OR WHERE EXISTING FOUNDATIONS WILL BE IMPACTED.

GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO EXCAVATIONS AND ANY OTHER WATER ACCUMULATING THEREIN SHALL BE PROMPTLY REMOVED. UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES. ANY PIPE HAVING ITS ALIGNMENT OR GRADE CHANGED AS A RESULT OF A FLOODED TRENCH SHALL BE RELAID AT NO ADDITIONAL COST TO THE OWNER.

THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO THE LINE AND GRADE SHOWN ON THE DRAWINGS. BEDDING MATERIAL SHALL BE COMPACTED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE PIPE AT EVERY POINT ALONG ITS ENTIRE LENGTH. BELL HOLES AND DEPRESSIONS FOR JOINTS SHALL BE DUG AFTER THE TRENCH BEDDING HAS BEEN GRADED, AND SHALL BE ONLY OF SUCH LENGTH, DEPTH AND WIDTH AS REQUIRED FOR PROPERLY MAKING THE PARTICULAR TYPE JOINT.

TRENCH DEPTH SHALL BE AS REQUIRED FOR THE INVERT GRADE OR PIPE BURY. CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE REQUIRED DEPTH. UNAUTHORIZED OVER DEPTHS SHALL BE BACKFILLED WITH BEDDING MATERIAL AT THE CONTRACTOR'S EXPENSE.

WHEN SOFT OR UNSTABLE MATERIAL IS ENCOUNTERED AT THE SUBGRADE WHICH WILL NOT UNIFORMLY SUPPORT THE PIPE, SUCH MATERIAL SHALL BE EXCAVATED TO AN ADDITIONAL DEPTH AS DIRECTED BY THE ENGINEER AND BACKFILLED WITH TYPE 2 FOUNDATION MATERIAL.

MATERIALS NOTES:

THE CONTRACTOR SHALL FURNISH A CERTIFICATION BY THE MANUFACTURER OF THE PIPE TO BE FURNISHED ON THIS PROJECT, CERTIFYING THAT THE PIPE AND FITTINGS COMPLY WITH THE APPLICABLE SPECIFICATIONS.

ALL PIPE SHALL BE CLEARLY MARKED WITH TYPE, CLASS AND/OR THICKNESS AS APPLICABLE. LETTERING SHALL BE LEGIBLE AND PERMANENT UNDER NORMAL CONDITIONS OF HANDLING AND STORAGE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS FURNISHED BY THEM AND SHALL REPLACE AT THEIR OWN EXPENSE ALL SUCH MATERIAL FOUND DEFECTIVE IN MANUFACTURE OR DAMAGED IN HANDLING AFTER DELIVERY BY THE MANUFACTURER. THIS SHALL INCLUDE THE FURNISHING OF ALL MATERIALS AND LABOR REQUIRED FOR THE REPLACEMENT OF INSTALLED MATERIAL DISCOVERED, DAMAGED OR DEFECTIVE PRIOR TO THE FINAL ACCEPTANCE OF THE WORK OR DURING THE GUARANTEE PERIOD.

PIPE INSTALLATION NOTES:

PIPE SHALL BE INSTALLED AND EMBEDDED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, AND APPLICABLE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLING THE TYPE OF PIPE USED UNLESS MODIFIED OR CHANGED ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL TOOLS AND EQUIPMENT INCLUDING ANY SPECIAL TOOLS DESIGNED FOR INSTALLING EACH PARTICULAR TYPE OF PIPE USED.

WHERE WATER IS ENCOUNTERED IN THE TRENCH, IT SHALL BE REMOVED DURING PIPE LAYING OPERATIONS AND THE TRENCH SO MAINTAINED UNTIL THE ENDS OF THE PIPE ARE SEALED AND PROVISIONS ARE MADE TO PREVENT FLOATING OF THE PIPE.

BEFORE INSTALLATION, THE PIPE, FITTINGS AND FITTING COATING SHALL BE INSPECTED FOR DEFECTS. ANY DAMAGE TO PIPE COATINGS SHALL BE REPAIRED WITH THE SAME MATERIALS USED FOR THE ORIGINAL COATING BEFORE LAYING THE PIPE PER MANUFACTURERS RECOMMENDATIONS FOR REPAIR.

ALL PIPE SHALL BE LAID AND MAINTAINED TO THE REQUIRED LINES AND GRADES WITH FITTINGS AND VALVES AT THE REQUIRED LOCATIONS.

EVERY PRECAUTION SHALL BE TAKEN TO PREVENT FOREIGN MATERIAL FROM ENTERING THE PIPE WHILE IT IS BEING PLACED IN THE LINE. DURING LAYING OPERATIONS, NO DEBRIS, TOOLS, CLOTHING OR OTHER MATERIALS SHALL BE PLACED IN THE PIPE. AT TIMES WHEN PIPE LAYING IS NOT IN PROGRESS, THE OPEN ENDS OF THE PIPE SHALL BE CLOSED BY A WATERTIGHT PLUG OR OTHER MEANS APPROVED BY THE ENGINEER.

BACKFILL NOTES:

TYPE 2 FOUNDATION MATERIAL SHALL BE PIT RUN ROCK NO LARGER THAN THREE (3") INCH IN SIZE, PLACED BELOW THE PIPE OR CONDUIT. BEDDING MATERIAL SHALL BE PLACED IN THE TRENCH FOR ITS FULL WIDTH ON EACH SIDE SIMULTANEOUSLY. THE MAXIMUM DIFFERENCE OF ELEVATION BETWEEN EACH SIDE OF THE PIPE AT ANYTIME SHALL BE SIX (6) INCHES..

BEDDING MATERIAL SHALL BE DISTRIBUTED BY HAND IN MAXIMUM LAYERS OF SIX (6) INCHES AND THOROUGHLY COMPACTED BY TAMPING. SPECIAL CARE SHALL BE TAKEN TO ASSURE COMPLETE COMPACTION UNDER THE HAUNCHES OF THE PIPE.

THE OWNER SHALL BE RESPONSIBLE FOR PAYMENT OF ALL TESTING REQUIRED FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL TESTING.

DE-WATERING PERMIT:

DE-WATERING OF TRENCHES AND RELATED EXCAVATIONS MAY BE REQUIRED ON THIS PROJECT. DE-WATERING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS SECTION 11.3 AND IN ACCORDANCE WITH THE FOLLOWING ADDITIONAL REQUIREMENTS.

DE-WATERING ACTIVITIES SHALL BE CONDUCTED IN COMPLIANCE WITH THE "GENERAL PERMIT TO DISCHARGE UNDER THE SURFACE WATER DISCHARGE SYSTEM FOR TEMPORARY DE-WATERING ACTIVITIES IN SOUTH DAKOTA", SD D.E.N.R. PERMIT NO. S.D.G. 070000. THE CONTRACTOR IS REQUIRED TO FURNISH THE "REQUEST FOR AUTHORIZATION" TO SD D.E.N.R. REQUIRED UNDER THE PERMIT AND TO OBTAIN SD D.E.N.R. AUTHORIZATION AND FURNISH A COPY TO THE OWNER AND CITY PRIOR TO CONDUCTING ANY DE-WATERING ACTIVITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING SELF-MONITORING ACTIVITIES INCLUDING SAMPLING, TESTING, AND REPORTING AS MAY BE DETERMINED TO BE REQUIRED UNDER THE AUTHORIZATION TO DISCHARGE.

CONSTRUCTION NOTES:

FOURFRONT DESIGN, INC. SHALL PROVIDE SURVEY CONTROL FOR THIS PROJECT AND THE CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION STAKING. A REGISTERED LAND SURVEYOR SHALL OVERSEE THE STAKING OF THE PROPOSED WORK.

UTILITIES:

THE INFORMATION ON THESE DRAWINGS CONCERNING THE TYPE, SIZE, AND LOCATION OF UTILITIES HAS BEEN BASED UPON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETERMINATION OF THE EXACT LOCATION SIZES AN TYPE OF ALL UTILITIES PRIOR TO ORDERING MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL UTILITIES IN PLACE. THE CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATIONS WITH THE APPROPRIATE UTILITY COMPANY.

ELECTRICAL, TELEPHONE, CABLE TELEVISION, AND GAS UTILITIES MAY BE ADJUSTED AND/OR RELOCATED BY THE RESPECTIVE UTILITY COMPANY UPON APPROVAL OF THE ENGINEER.

ALL UTILITY COMPANIES SHALL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF SUBSURFACE WORK.

UTILITIES:

SOUTH DAKOTA ONE
CALL:
1-800-781-7474

TELEPHONE:
QWEST
1-800-573-1311

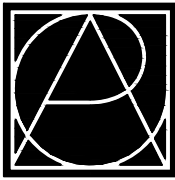
ELECTRIC:
BLACK HILLS POWER
& LIGHT
409 DEADWOOD
AVENUE
605-342-3200

SEWER, WATER:
CITY OF RAPID CITY
UTILITIES DEPT
605 STEELE AVENUE
605-394-4163

GAS:
MONTANA-DAKOTA
UTILITIES
705 KANSAS CITY
STREET
605-342-0160

FIBER OPTICS, CABLE
TELEVISION:
KNOLOGY
909 DEADWOOD
AVENUE
605-721-2000

MIDCONTINENT
COMMUNICATIONS
1301 W. OMAHA
STREET
800-888-1300



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E-mail: reas@reasite.com
www.reasite.com

additional offices in:
Indianapolis, IN | Muncie, IN

PREPARED FOR:

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TE (605) 394-4165 FX (605) 355-3083

Destination Rapid City

606 Main Street, Rapid City, SD 57701
TE (605) 716-7979 FX (605) 341-6415

CONSULTANTS:

FourFront Design, Inc.

Architecture and Civil Engineering
517 Seventh Street
Rapid City, SD 57701
TE (605) 342-9470 FX (605) 342-2377

Skyline Engineering, LLC

Electrical and Mechanical Engineering
615 12th Street
Rapid City, SD 57701
TE (605) 737.3830 FX (605) 737.3859

Albertson Engineering, Inc.

Structural Engineering
3202 W Main Street, Suite C
Rapid City, SD 57702
TE (605) 343.9606 FX (605) 341.7395

PROJECT:

Main Street Square
Site Development
Rapid City, South Dakota

REVISIONS:			
NO.	BY	DESCRIPTION	DATE
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General Notes

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OWNER
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City #:
Project No.:
Date:
Drawn by:
Checked by:
File:

June 23, 2010
CME
EAH
1592-L02-NOTE01.dwg

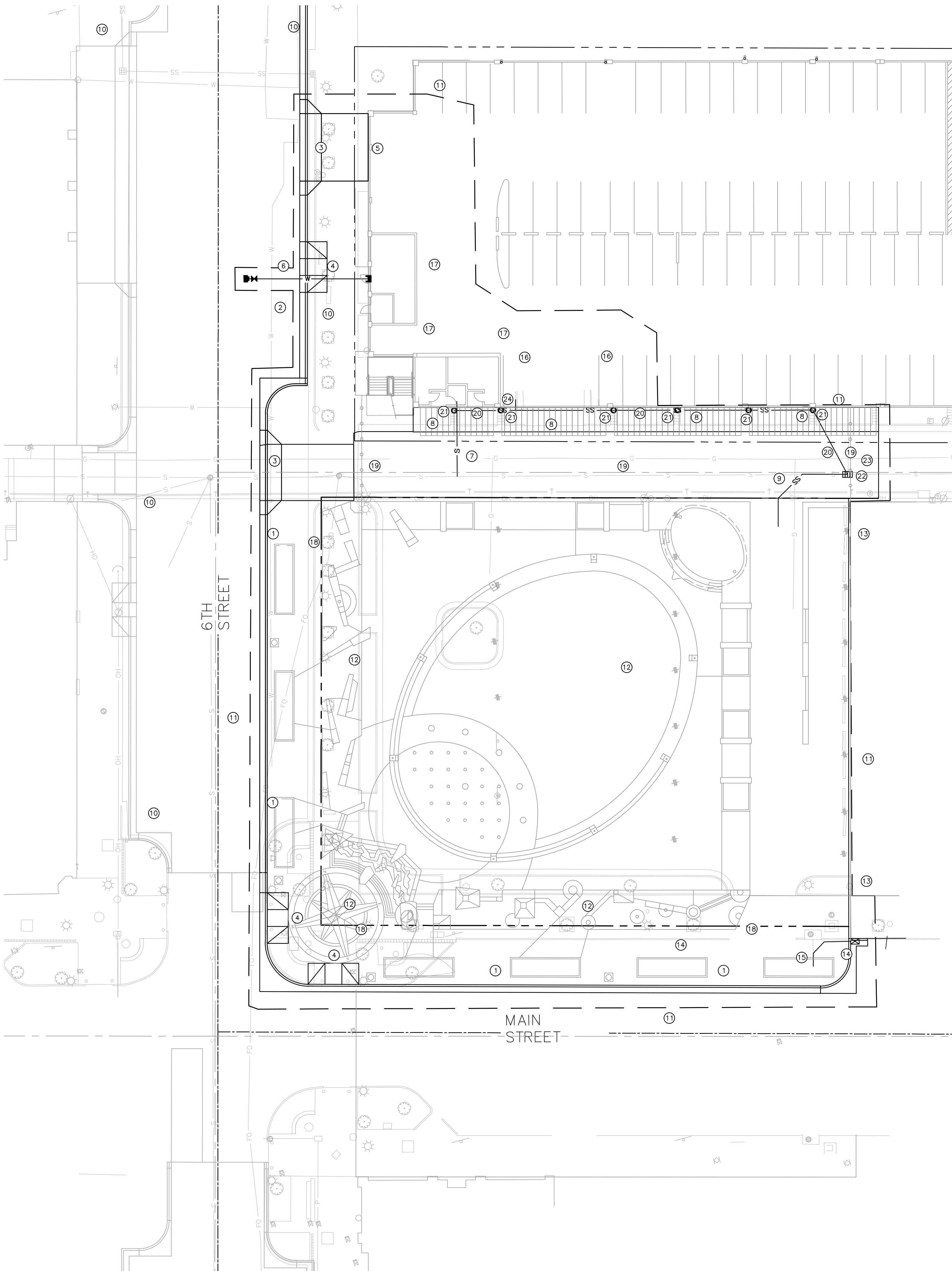
DRAWING #:

SD 3.01

SITE DEVELOPMENT & LAYOUT NOTES

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS. ALL EXISTING UTILITIES ARE TO BE LOCATED BEFORE ANY EXCAVATION OF ANY KIND BEGINS.
2. PROTECT ALL EXISTING IMPROVEMENTS TO REMAIN AND REPAIR BACK TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE IF DAMAGE OCCURS RESULTANT FROM CONTRACTOR'S OPERATIONS OR NEGLIGENCE.
3. GENERAL CONTRACTOR'S SURVEYOR WILL BE PROVIDED WITH DIGITAL CADD FILES FOR USE IN ESTABLISHING SURVEY POINTS FOR CONSTRUCTION. SURVEYOR TO COORDINATE WITH 4FRONT DESIGN, INC. TO RECEIVE "READ ONLY" CADD FILES FOR USE IN STAKING AND/OR CONTRACTOR AS BUILTS.
4. GENERAL CONTRACTOR TO COORDINATE WORK ON THIS SHEET WITH ALL NECESSARY TRADES. COORDINATION WILL NOT BE THE RESPONSIBILITY OF DESIGN PROFESSIONAL.
5. CONTRACTOR TO COORDINATE LAYOUT AND SITE DEVELOPMENT WITH DEMOLITION PLANS AND DETAILS. (IF APPLICABLE)
6. CONTRACTOR TO COORDINATE SITE DEVELOPMENT WITH ALL TEMPORARY STRUCTURES. (IF APPLICABLE)
7. CONTRACTOR TO COORDINATE SITE DEVELOPMENT WITH ALL OTHER CONTRACT DOCUMENTS, AND COORDINATE WITH GOVERNMENTAL/JURISDICTIONAL AGENCIES DURING PERMITTING AND CONSTRUCTION PROCESS.
8. CONTRACTOR TO INSTALL IRRIGATION SLEEVES AS INDICATED AS WELL AS COORDINATE WITH IRRIGATION & CIVIL DRAWINGS AND SPECIFICATIONS AND FLAG/LOCATE THE SLEEVES FOR IRRIGATION CONTRACTOR.
9. CONTRACTOR TO COORDINATE SITE DEVELOPMENT WITH PLANTING PLANS AND DETAILS. (IF APPLICABLE)
10. CLARIFICATIONS TO BE REQUESTED IN WRITING BY DESIGN PROFESSIONAL VIA STANDARD PROTOCOLS.
11. CONTRACTOR TO PROVIDE WARRANTY PERIOD AS INDICATED IN CONTRACT DOCUMENTS ALL WORK SHOWN OR IMPLIED.
12. CONTRACTOR TO COORDINATE WITH OWNER/OWNER REPRESENTATIVE DURING CONSTRUCTION PERIOD.
13. DIGITAL INFORMATION FOR SITE LAYOUT TO BE SUPPLIED TO CONTRACTOR FOR LAYOUT PURPOSES. COORDINATION WITH CONTRACTORS SURVEYOR AND 4FRONT DESIGN, INC. TO BE FACILITATED POST BID.

- 1 PROPOSED CURB AND GUTTER
- 2 PROPOSED LOADING ZONE
- 3 PROPOSED 20' CONCRETE DRIVEWAY APPROACH -- INSTALL ON 6TH STREET RECONSTRUCTION PROJECT.
- 4 PROPOSED HANDICAP RAMP
- 5 PROPOSED PARKING RAMP ENTRANCE
- 6 PROPOSED 4" WATER SERVICE, COORDINATE WITH THE 6TH STREET RECONSTRUCTION PROJECT
- 7 PROPOSED 4" SANITARY SEWER SERVICE, CONNECT TO EXISTING 12" SANITARY SEWER MAIN
- 8 PROPOSED SIDEWALK AND WHEEL STOPS ADJACENT TO PARKING RAMP.
- 9 PROPOSED 18" RCP STORM SEWER -- CONNECT TO EXISTING STORM SEWER INLET
- 10 PROPOSED 6TH STREET IMPROVEMENTS
- 11 PROJECT LIMITS
- 12 PROPOSED SQUARE IMPROVEMENTS -- SEE LANDSCAPE SHEETS
- 13 EXISTING SEARS BUILDING -- DO NOT DISTURB
- 14 PROPOSED TYPE B INLET
- 15 PROPOSED 18" RCP W/2--45' BENDS. CONNECT TO EXISTING STORM SEWER
- 16 PROPOSED CONCRETE PAVEMENT
- 17 PROPOSED BOLLARDS
- 18 PROPOSED 12" ROW VACATION LOCATION
- 19 PROPOSED BRICK PAVERS -- SEE LANDSCAPE SHEETS
- 20 PROPOSED 12" PVC STORM SEWER
- 21 PROPOSED SCUPPER INLET
- 22 CONNECT 12" PVC STORM SEWER TO PROPOSED AREA INLET IN ALLEY
- 23 PROPOSED ALLEY AREA INLET
- 24 CONNECT PROPOSED 12" PVC STORM SEWER TO PROPOSED ZAMBONI DRAIN -- SEE MECHANICAL SHEETS



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additional offices in:
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CONSULTANTS:

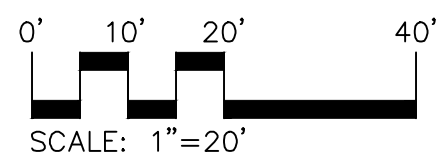
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PROJECT:

Main Street Square
Site Development
Rapid City, South Dakota



REVISIONS:

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Civil Layout Plan

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City #:
Project No.: 091131
Date: June 23, 2010
Drawn by: CME
Checked by: EAH
File: 1592-L02-SITE01.dwg
DRAWING #:

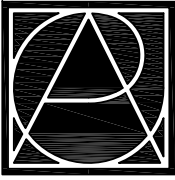
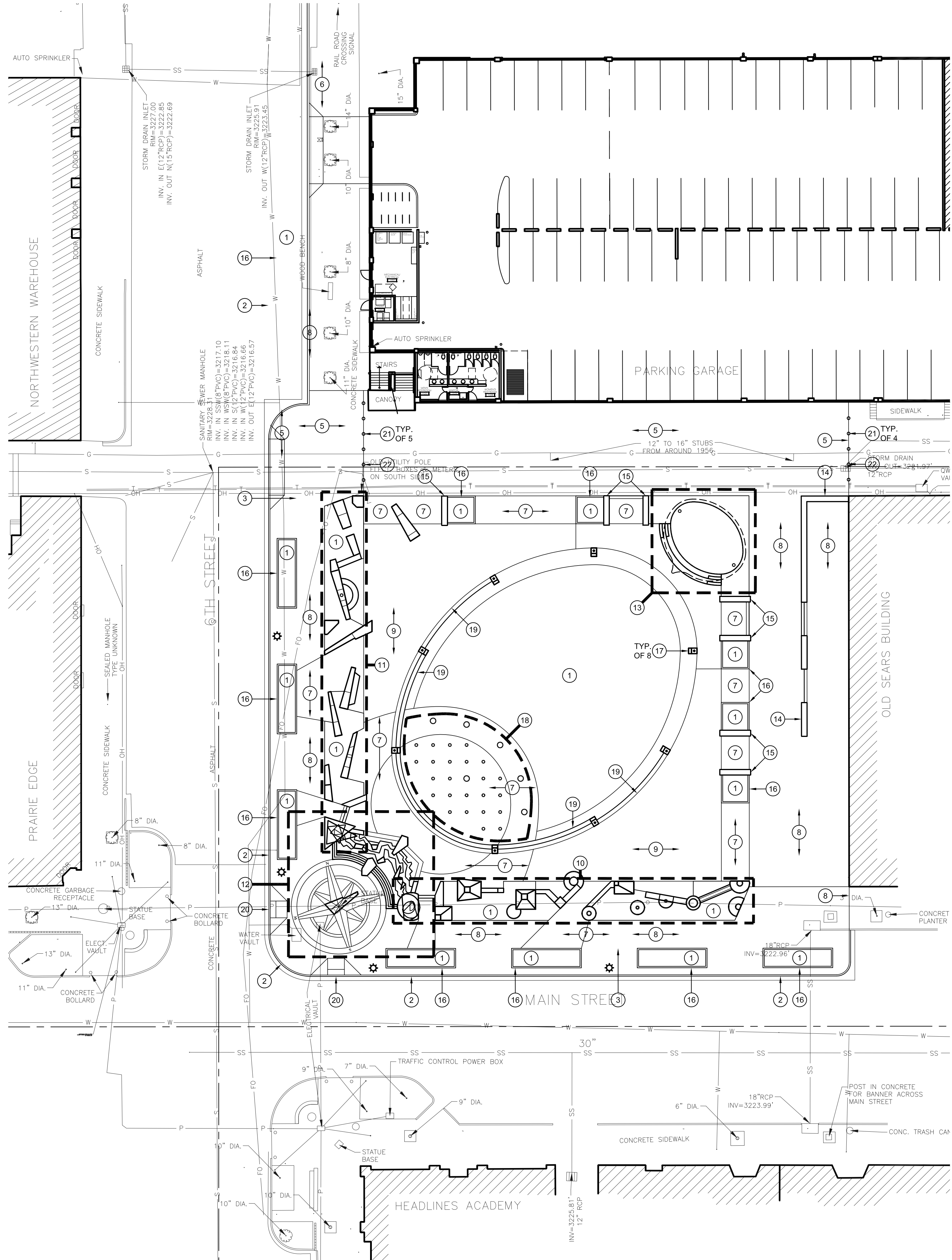
SD 3.02

LAYOUT GENERAL NOTES:

1. SITE LAYOUT DATA, INCLUDING COORDINATE POINTS, IS BASED ON A SURVEY PERFORMED BY _____. REFER TO _____ FOR HORIZONTAL LAYOUT CONTROL POINTS. REPORT ANY DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS TO OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY.
2. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO THE FOLLOWING: FACE OF WALL, FACE OF BUILDING, FACE OF GUTTER, EDGE OF PAVEMENT, CENTERLINE OF PAVEMENT
3. ALL EDGES OF PAVEMENTS ARE TO BE STRAIGHT (OR OF CONSISTENT RADIUS IN THE CASE OF CURVES) AS SHOWN HEREON; NO UNSPECIFIED TANGENTS OR KINKS WILL BE APPROVED.
4. ALL CONSTRUCTION LAYOUT STAKING IS TO BE PERFORMED BY A LAND SURVEYOR OR PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF SOUTH DAKOTA. TO FACILITATE ACCURACY IN CONSTRUCTION STAKING, UPON WRITTEN REQUEST FROM CONTRACTOR, A CD CONTAINING THE ELECTRONIC DATA COMPRISING THESE SITE DEVELOPMENT DRAWINGS WILL BE FORWARDED FROM THE LANDSCAPE ARCHITECT TO THE LAND SURVEYOR OR PROFESSIONAL ENGINEER EMPLOYED TO PERFORM CONSTRUCTION STAKING.
5. IN ORDER TO MAINTAIN THE INTEGRITY OF HORIZONTAL AND VERTICAL CONTROL FOR THE SITE, THE SURVEYOR OR PROFESSIONAL ENGINEER EMPLOYED BY THE CONTRACTOR TO PERFORM CONSTRUCTION LAYOUT STAKING SHALL SET AND PROTECT ADDITIONAL TRAVERSE POINTS OUTSIDE THE AREAS OF CONSTRUCTION ACTIVITY.
6. AS SOME OF THE HORIZONTAL CONTROL POINTS SHOWN ON THESE PLANS AS EXISTING MAY HAVE BEEN REMOVED OR DAMAGED SINCE THEY WERE SET, THE CONTRACTOR SHALL, DURING THE BIDDING PROCESS, VERIFY THE EXISTENCE AND INTEGRITY OF THE HORIZONTAL CONTROL POINTS SHOWN HEREON. THE CONTRACTOR SHALL INCLUDE ANY WORK NECESSARY TO ESTABLISH RELIABLE LAYOUT CONTROL FOR THE PROJECT IN THE BID.
7. REFER TO SHEET SD 4.0 SITE GRADING PLAN FOR VERTICAL LAYOUT DATA.

LAYOUT KEYNOTES:

- 1 PLANT BED OR LAWN AREA
REFER TO SHEET SD 6.0
- 2 CONCRETE CURB AND GUTTER
REFER TO DETAIL __, SHEET SD 5.1
- 3 CONCRETE BARRIER CURB
REFER TO DETAIL __, SHEET SD 5.1
- 4 CONCRETE PAVEMENT, VEHICULAR
REFER TO DETAIL __, SHEET SD 5.1
- 5 BRICK PAVEMENT, VEHICULAR
REFER TO DETAIL __, SHEET SD 5.1
- 6 CONCRETE SIDEWALK
REFER TO DETAIL __, SHEET SD 5.1
- 7 PRECAST PAVERS ON SUBSLAB
REFER TO DETAIL __, SHEET SD 5.1
- 8 BRICK PAVERS ON SUBSLAB
REFER TO DETAIL __, SHEET SD 5.1
- 9 CRUSHED GRANITE PAVEMENT
REFER TO DETAIL __, SHEET SD 5.1
- 10 BADLANDS STONE TAPESTRY
REFER TO PLAN ENLARGEMENT, SHEET SD 3.2
- 11 BLACK HILLS STONE TAPESTRY
REFER TO PLAN ENLARGEMENT, SHEET SD 3.2
- 12 WAYFINDING PLAZA AND CASCADE FOUNTAIN
REFER TO PLAN ENLARGEMENT, SHEET SD 3.2
- 13 STAGE
REFER TO PLAN ENLARGEMENT, SHEET SD 3.2
- 14 RETAINING WALL AT SEARS BUILDING
REFER TO DETAIL __, SHEET SD 5.2
- 15 SEATWALL
REFER TO DETAIL __, SHEET SD 5.2
- 16 PLANTER CURB
REFER TO DETAIL __, SHEET SD 5.1
- 17 GRANITE LIGHT POLE PIER
REFER TO DETAIL __, SHEET SD 5.2
- 18 INTERACTIVE FOUNTAIN
REFER TO FOUNTAIN SHEETS
- 19 LAWN STEPS
REFER TO DETAIL __, SHEET SD 5.2
- 20 CURB RAMP, TYPE 1
REFER TO DETAIL __, SHEET SD 5.1
- 21 BOLLARD, EMBEDDED
REFER TO DETAIL __, SHEET SD 5.1
- 22 BOLLARD, REMOVABLE
REFER TO DETAIL __, SHEET SD 5.1



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E-mail: re@louisvilleernstberger.com
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additional offices in:
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City of Rapid City
Public Works Department
300 Sixth Street, Rapid City, SD 57701
TE [605] 394-4165 FX [605] 355-3083

Destination Rapid City
606 Main Street, Rapid City, SD 57701
TE [605] 716-7979 FX [605] 341-6415

CONSULTANTS:

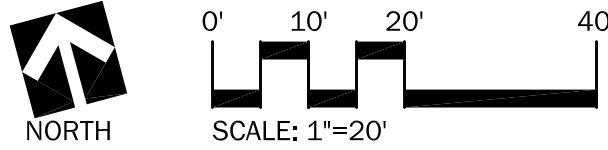
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Rapid City, SD 57702
TE [605] 343.9606 FX [605] 341.7395

PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**



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DRAWING NAME: Site Layout Keynote Plan	
CERTIFICATION: 50% CDs OWNER REVIEW SET	City #: Project No.: 091131 Date: June 23, 2010 Drawn by: PMA Checked by: DDR File: 1131_SD3.10.dwg DRAWING #:

SD 3.10



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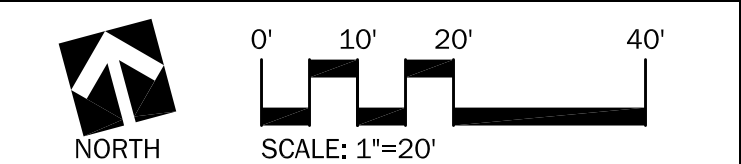
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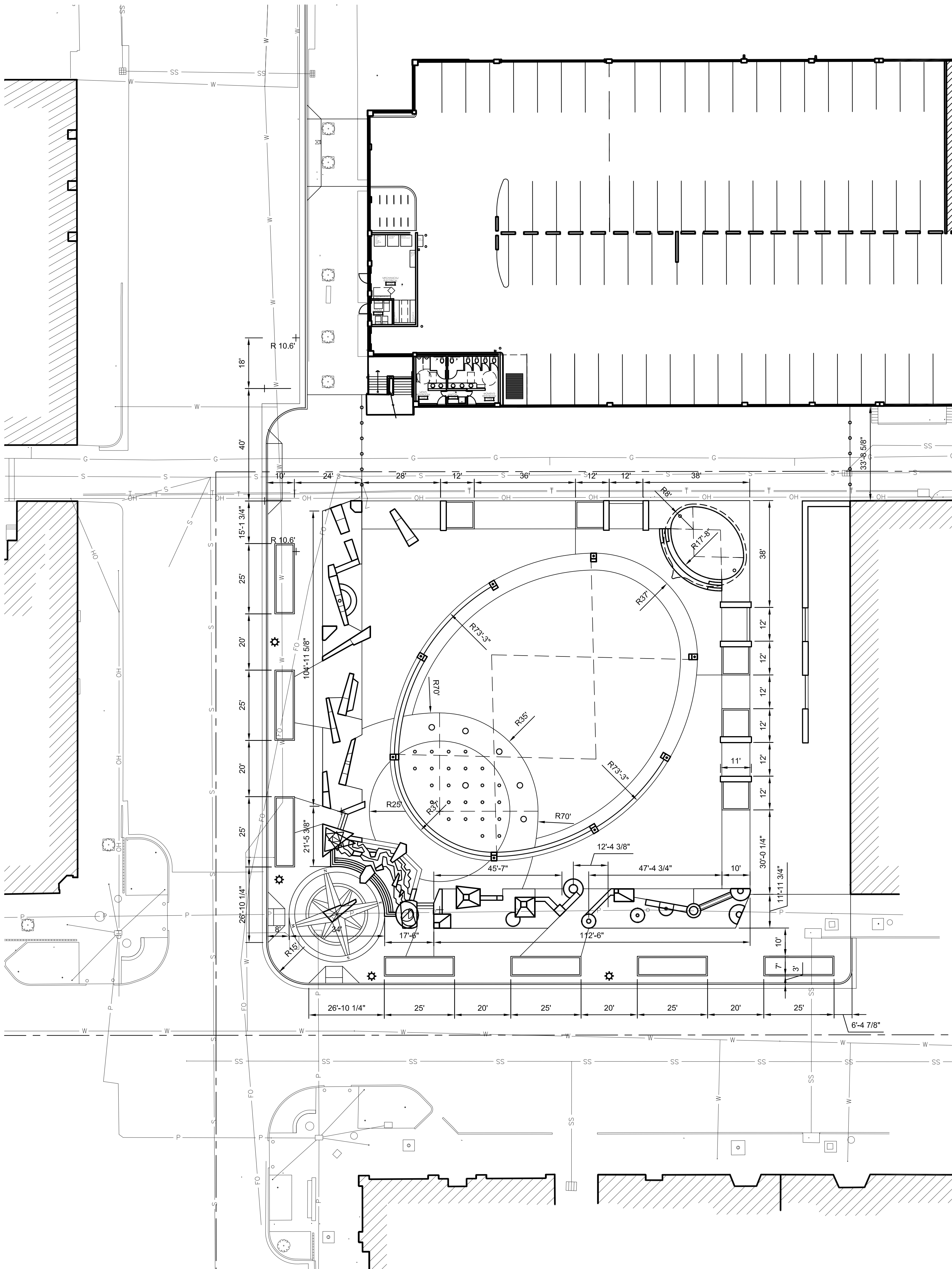
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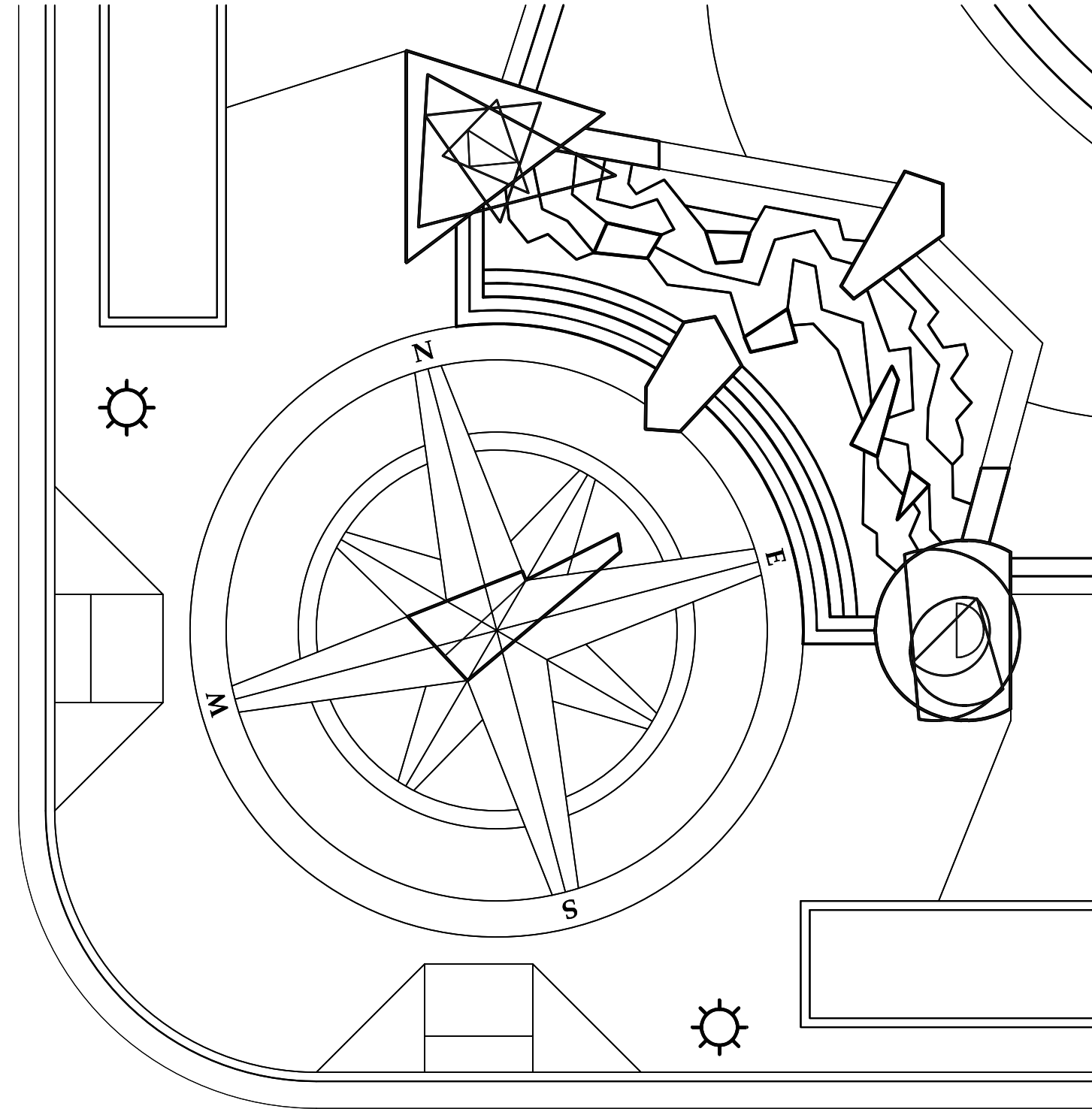
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	Date:	June 23, 2010
	Drawn by:	PMA
	Checked by:	DDR
	File:	1131_SD3.11.dwg

SD 3.11

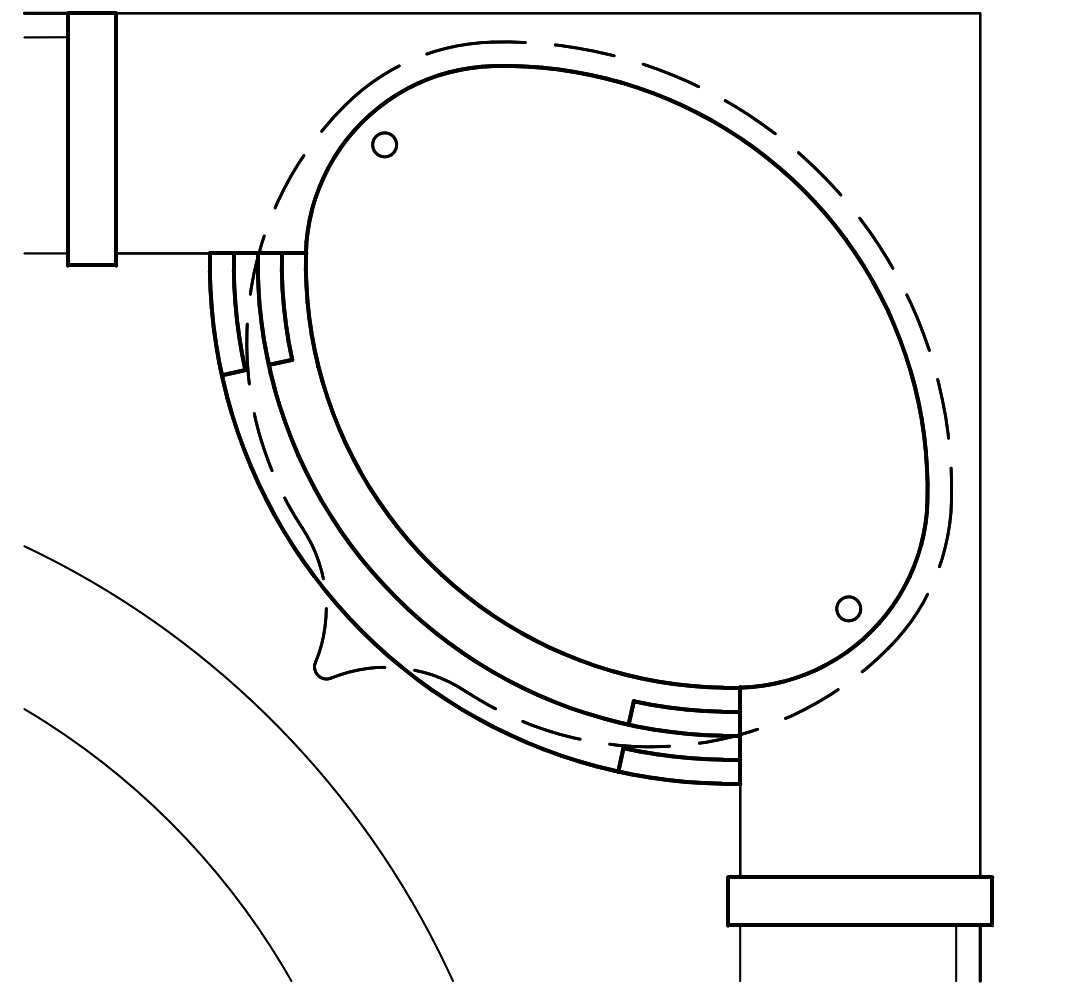
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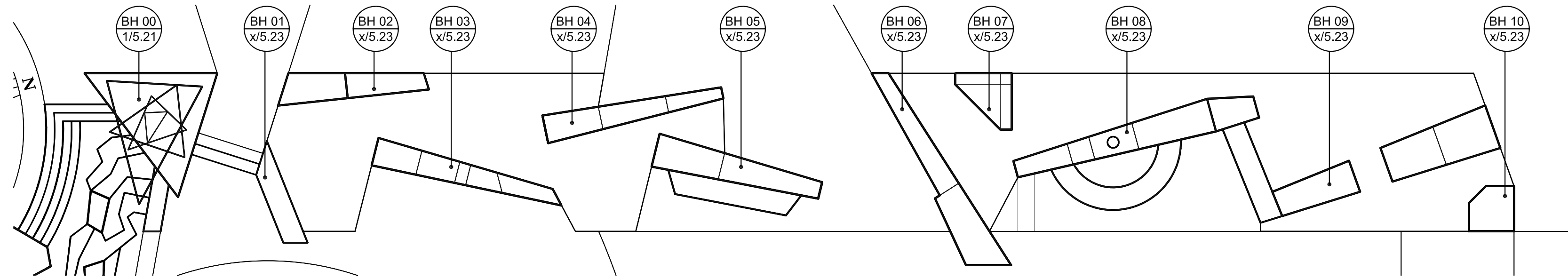




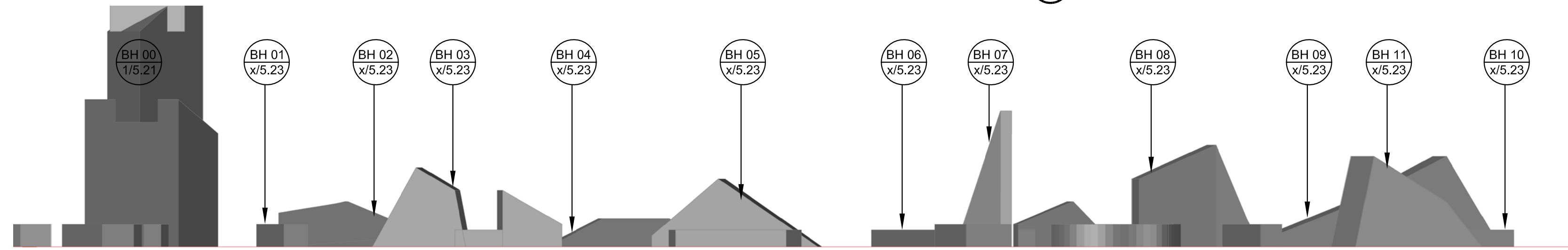
7 PLAZA AND CASCADE FOUNTAIN PLAN
SCALE: 1/8" = 1'-0"



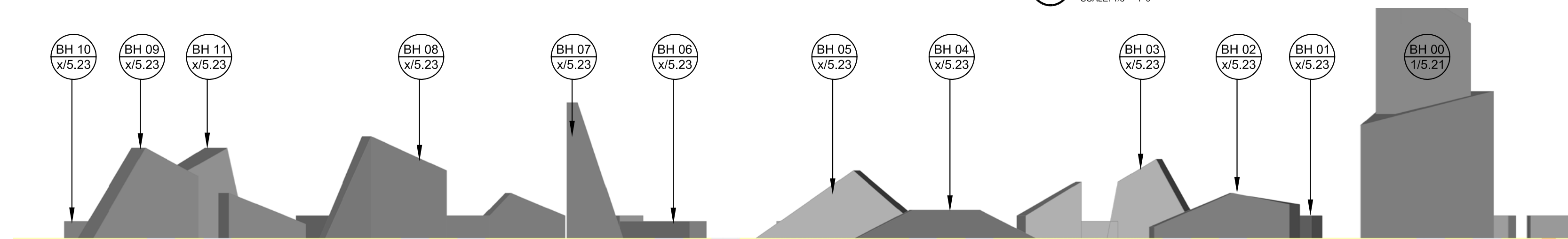
8 STAGE PLAN ENLARGEMENT
SCALE: 1/8" = 1'-0"



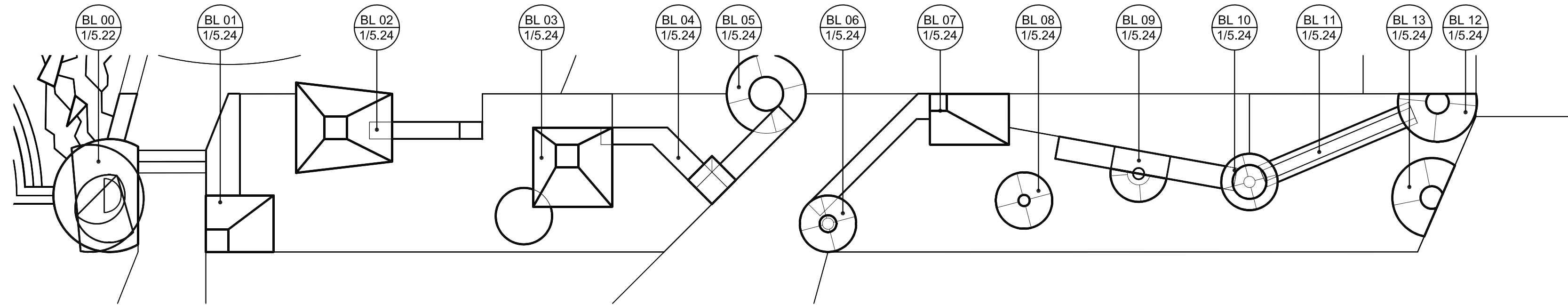
1 BLACK HILLS TAPESTRY PLAN ENLARGEMENT
SCALE: 1/8" = 1'-0"



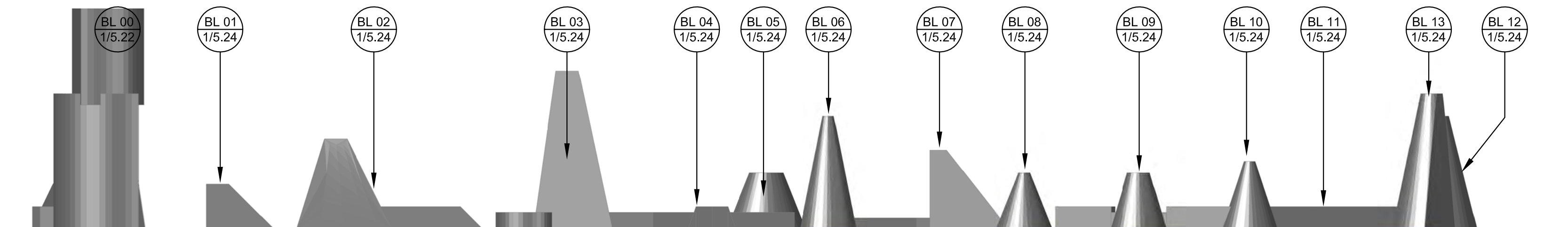
2 BLACK HILLS TAPESTRY EAST ELEVATION
SCALE: 1/8" = 1'-0"



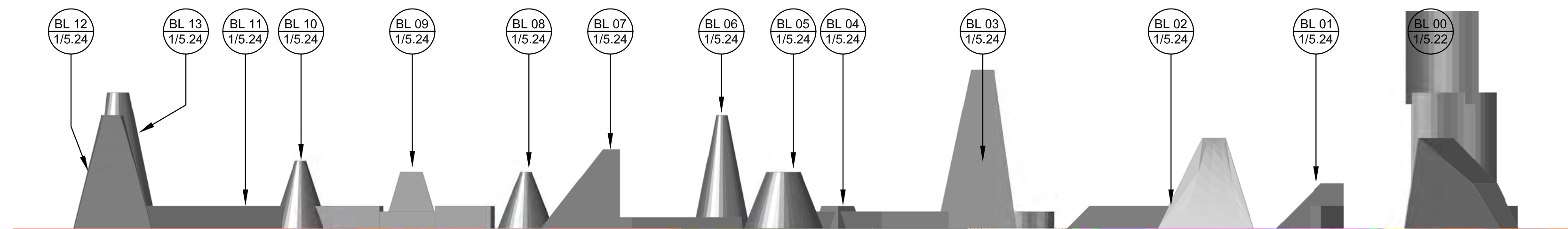
3 BLACK HILLS TAPESTRY WEST ELEVATION
SCALE: 1/8" = 1'-0"



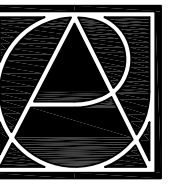
4 BADLANDS TAPESTRY PLAN ENLARGEMENT
SCALE: 1/8" = 1'-0"



5 BADLANDS TAPESTRY SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



6 BADLANDS TAPESTRY NORTH ELEVATION
SCALE: 1/8" = 1'-0"



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300 Sixth Street, Rapid City, SD 57701
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Destination Rapid City
606 Main Street, Rapid City, SD 57701
TE [605] 716-7979 FX [605] 341-6415

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PROJECT:

Main Street Square
Site Development
Rapid City, South Dakota

REVISIONS:

NO.	BY	DESCRIPTION	DATE
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DRAWING NAME:

Site Layout Plan

CERTIFICATION:

50% CDs
OWNER
REVIEW SET

City #:
Project No.: 091131
Date: June 23, 2010
Drawn by: PMA
Checked by: DDR
File: 1131_SD3.20.dwg

DRAWING #:

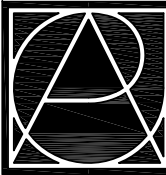
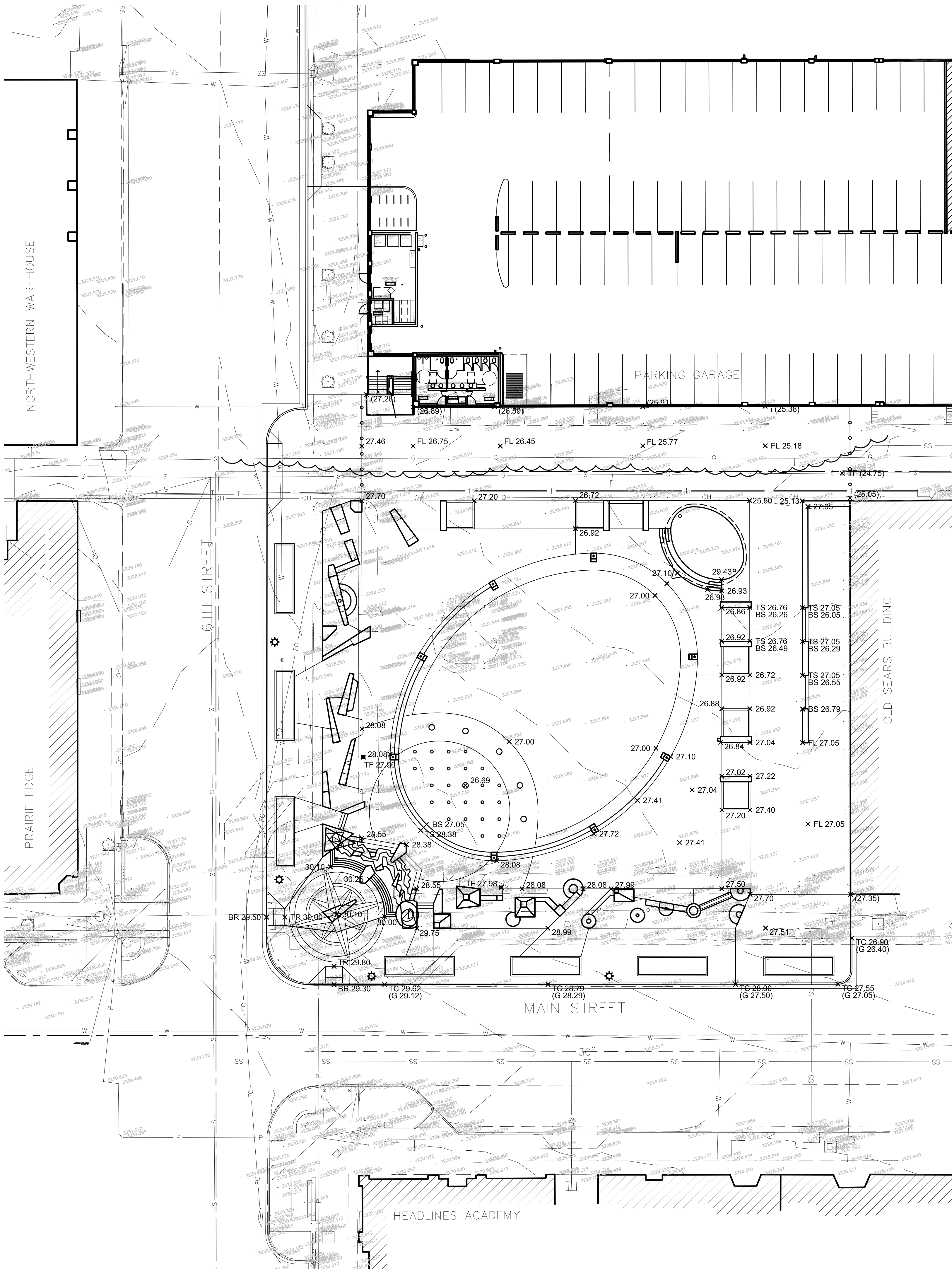
SD 3.20

GRADING LEGEND & KEY NOTES:

× 119.93	EXISTING SPOT ELEVATION
× 120.23	PROPOSED SPOT ELEVATION
-2%	PROPOSED SLOPE
LP	LOW POINT
HP	HIGH POINT
(i)	INTERPOLATED; NO SURVEY DATA AVAILABLE
TC	TOP OF CURB
MEG	MATCH EXISTING GRADE
FL	FLOW LINE (GUTTER)
RIM	RIM ELEVATION
TR	TOP OF RAMP
FV	FIELD VERIFY
ADJ	ADJUST CASTING TO MATCH PROPOSED GRADE

GRADING GENERAL NOTES:

- GRADES INDICATED ARE BASED ON SURVEY DATA. REFER TO SURVEY FOR VERTICAL CONTROL POINTS AND PROJECT BENCHMARK.
- THE CONTRACTOR SHALL REPORT IMMEDIATELY TO THE OWNER & LANDSCAPE ARCHITECT ANY DISCREPANCIES BETWEEN THE EXISTING GRADES SHOWN ON THESE PLANS AND ACTUAL FIELD CONDITIONS.
- UNLESS NOTED OTHERWISE, PROPOSED SPOT ELEVATIONS REPRESENT FINISH GRADE OF PAVEMENTS AND GROUND. IN LAWN OR PLANT BED AREAS, PROPOSED ELEVATIONS INDICATE REQUIRED ELEVATIONS AFTER SETTLING OF SOIL.
- ALL LAWN AREAS ARE TO RECEIVE A MINIMUM LAYER OF 6" OF TOPSOIL AND SEED. ALL PLANT BED AREAS ARE TO RECEIVE A MINIMUM LAYER OF 12" OF TOPSOIL AND MULCH. THE TOPSOIL SHALL BE TRANSITIONED INTO SUBGRADE AS SHOWN IN DETAIL 1, THIS SHEET.
- FINISH GRADES SHALL BE HELD DOWN RELATIVE TO WALKS AS FOLLOWS: AT SEED LAWNS: 1/2", AT SOD LAWNS: 1", AND AT PLANT BEDS: 2".

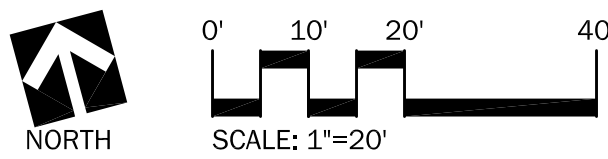


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PROJECT:
**Main Street Square
Site Development
Rapid City, South Dakota**

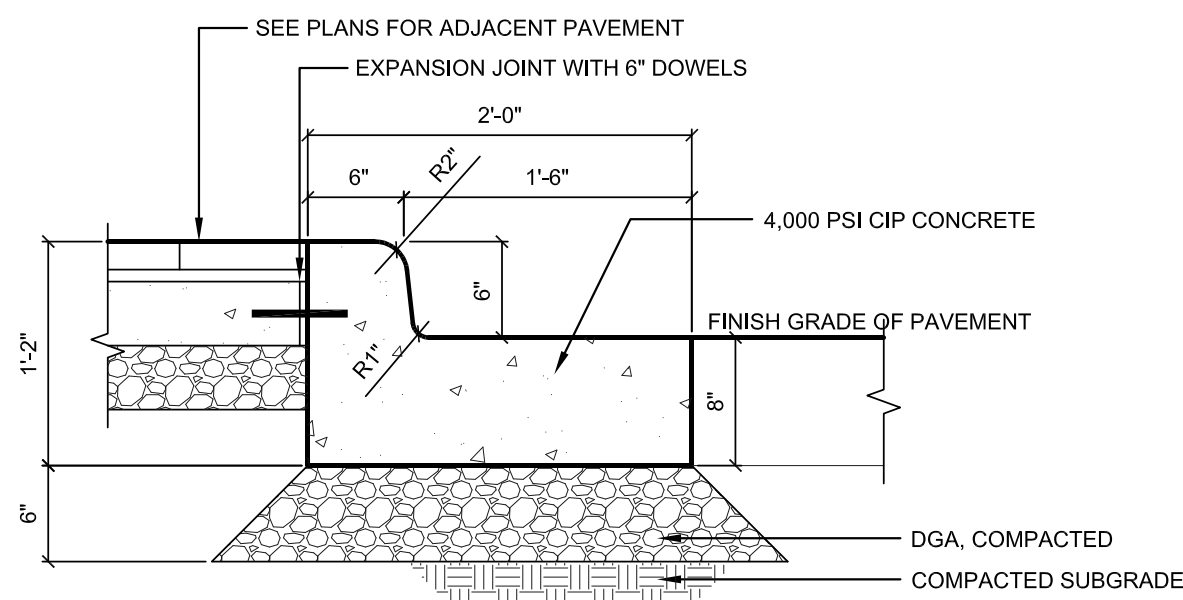


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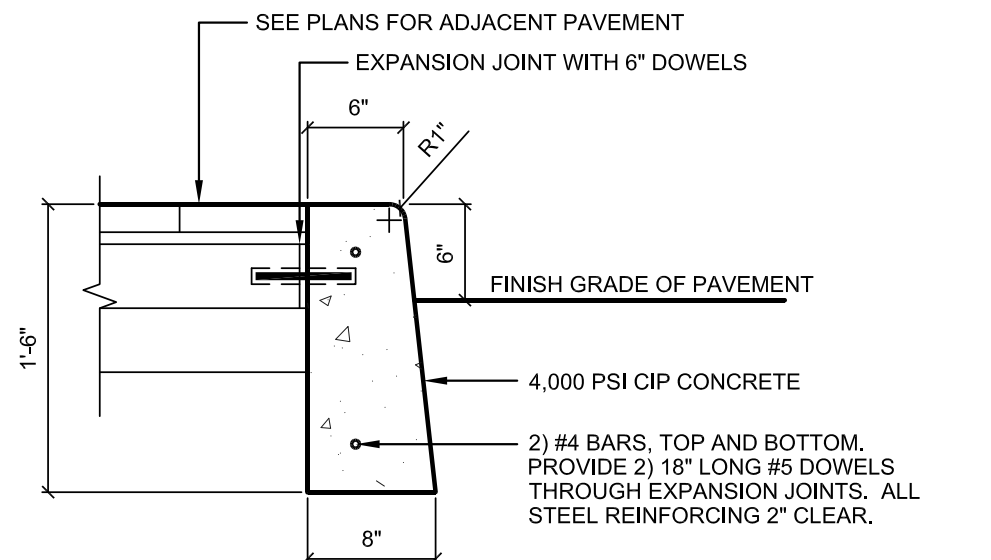
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DRAWING NAME:	
Site Grading Plan	
CERTIFICATION:	City #:
50% CDs	Project No.: 091131
OWNER	Date: June 23, 2010
REVIEW SET	Drawn by: PMA
	Checked by: DDR
	File: 1131_SD4.02.dwg
	DRAWING #:

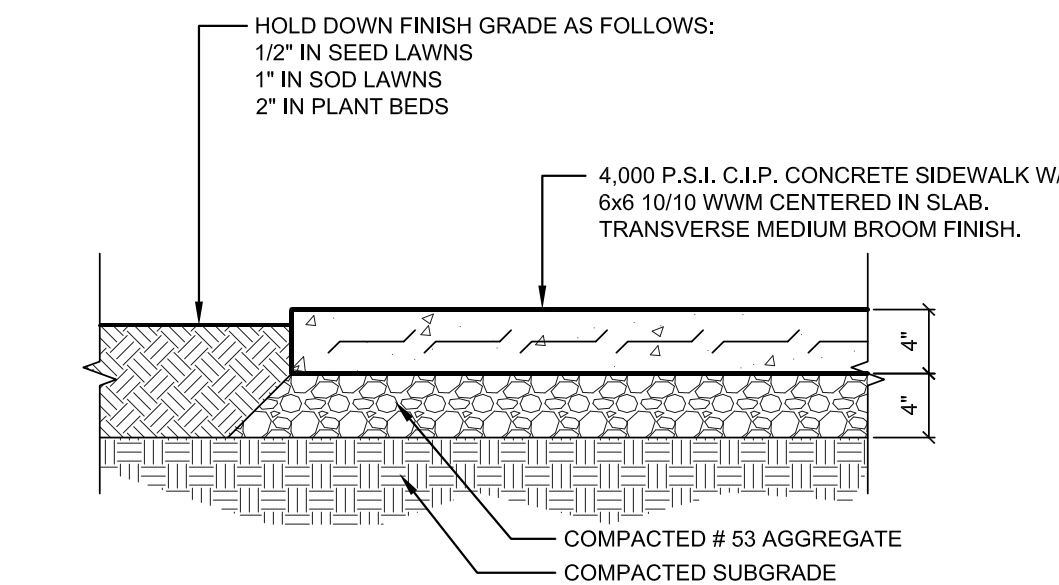
SD 4.02



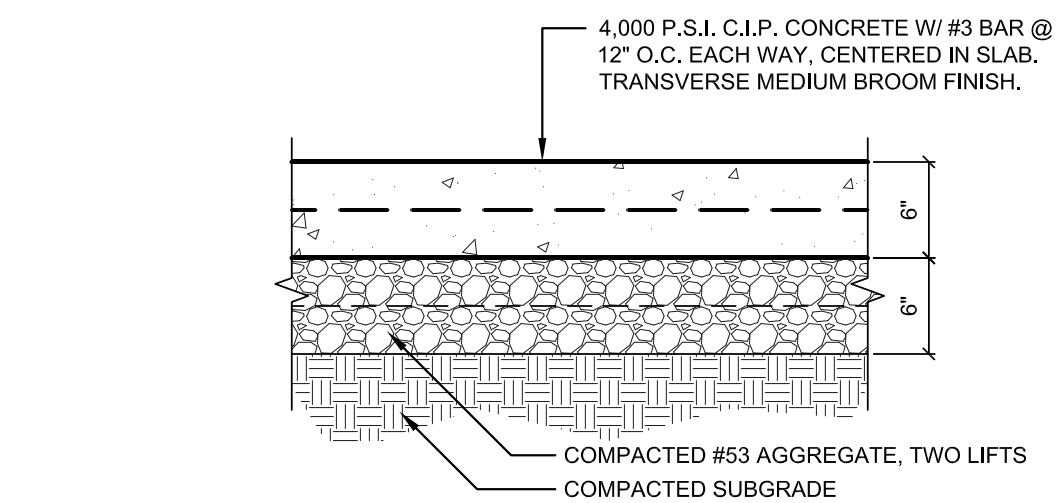
1 CONCRETE CURB AND GUTTER
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REFER TO "CONCRETE JOINTING DETAIL", TYP.



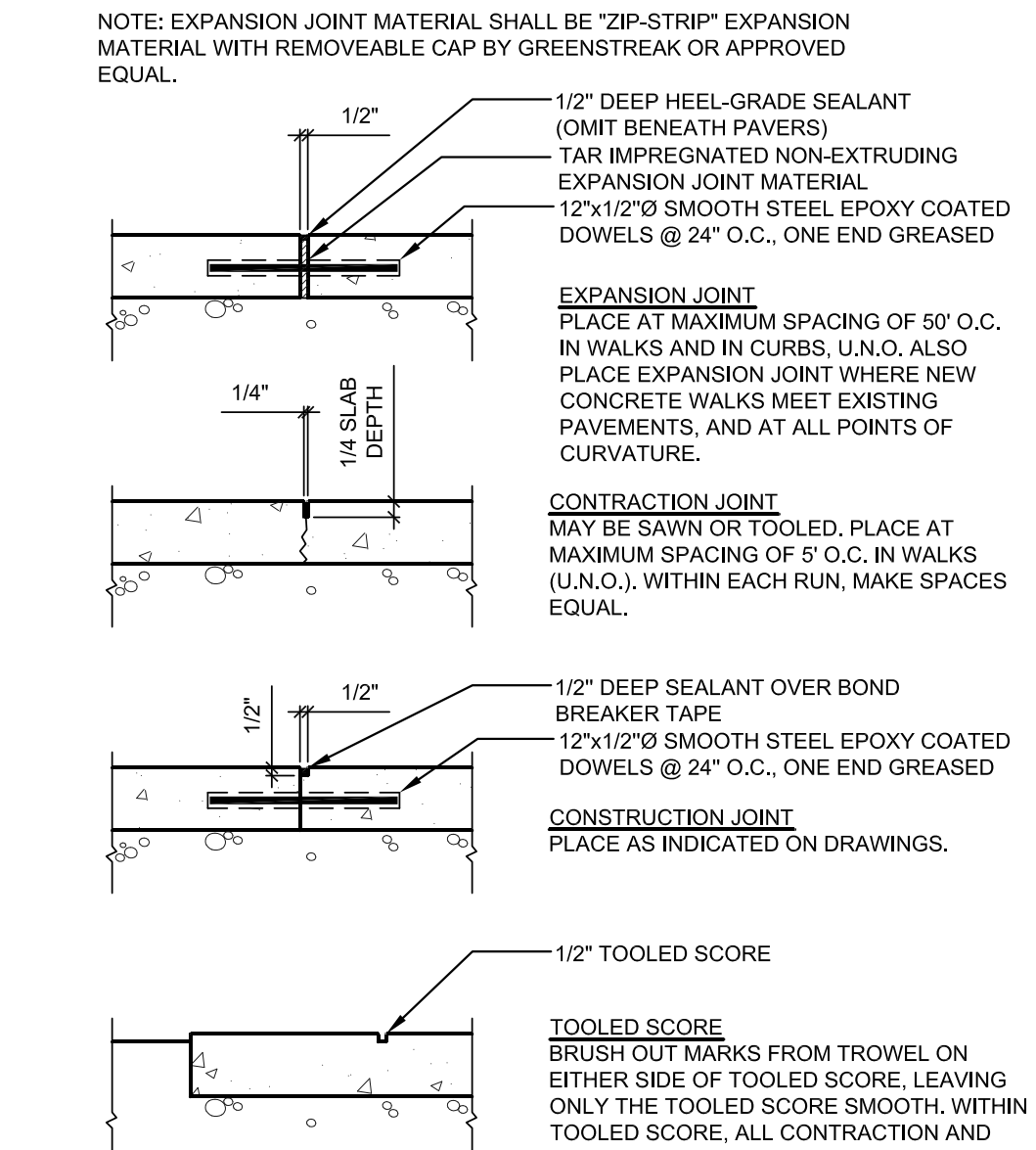
2 CONCRETE BARRIER CURB
SCALE: 3/4" = 1'-0"
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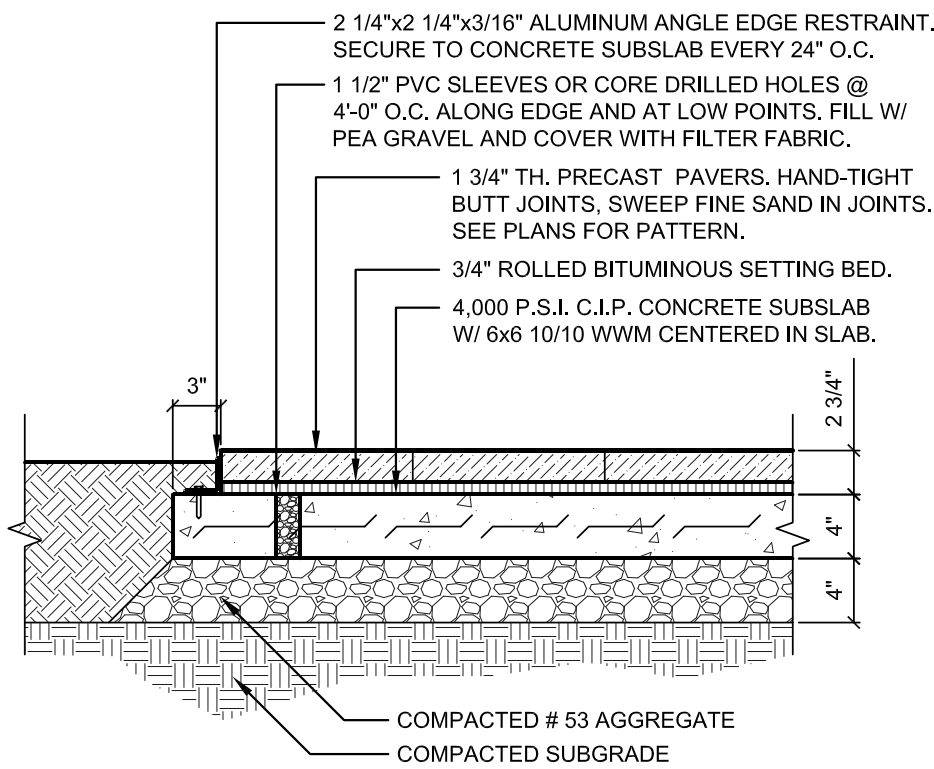
3 CONCRETE SIDEWALK PAVEMENT
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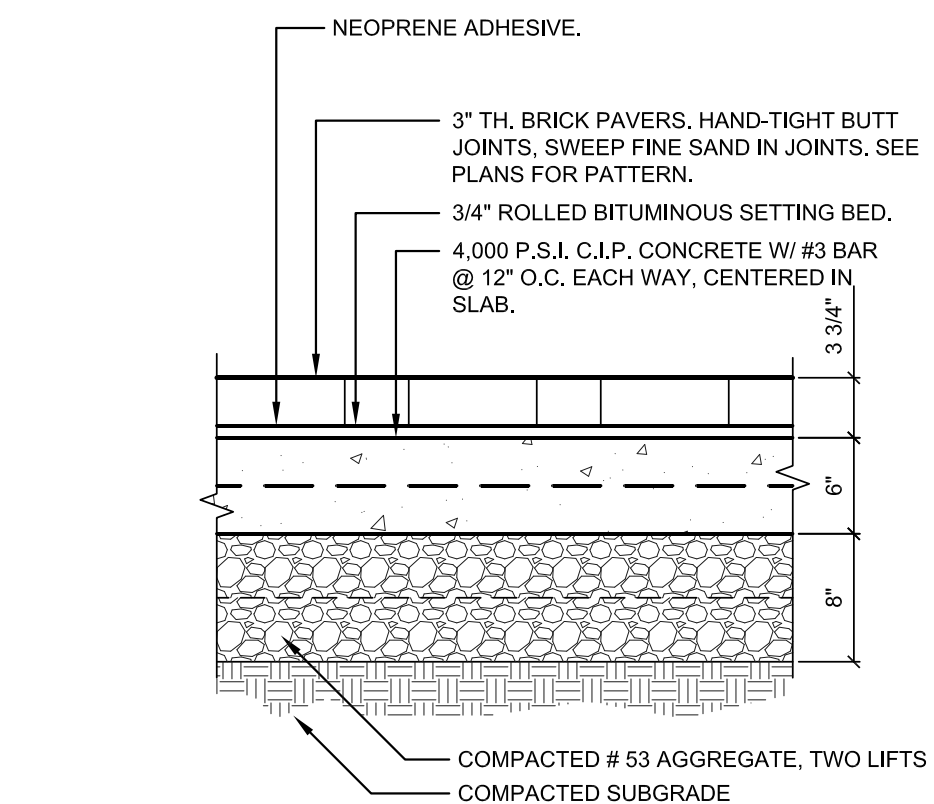
4 CONCRETE PAVEMENT VEHICULAR
SCALE: 1" = 1'-0"
REFER TO "CONCRETE JOINTING DETAIL", TYP.



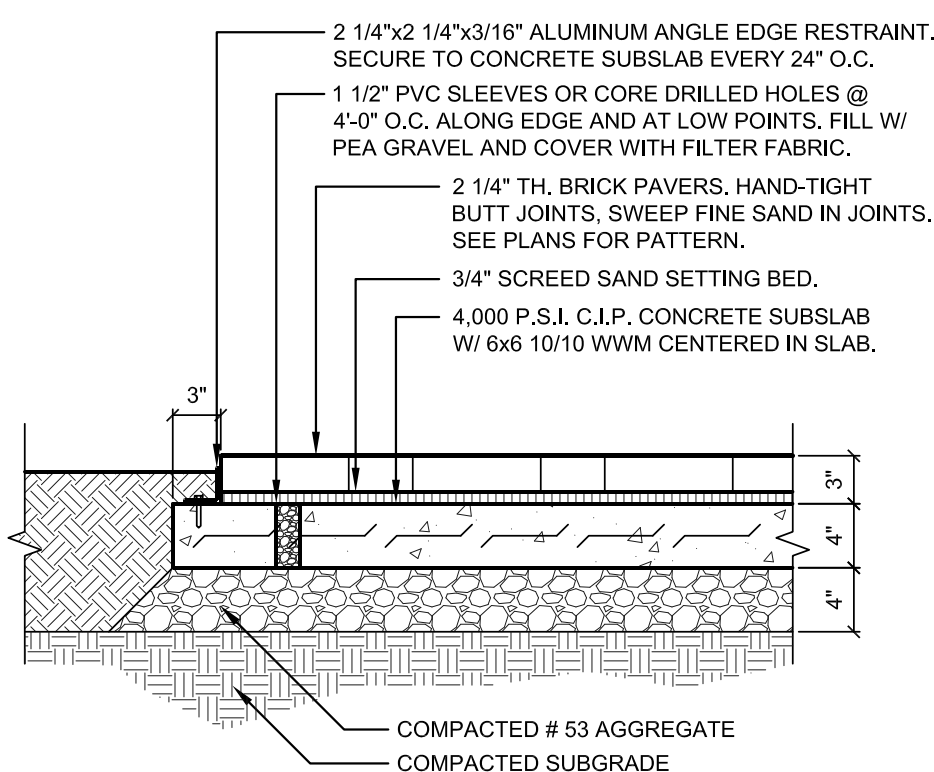
5 CONCRETE JOINTING DETAIL
SCALE: 1" = 1'-0"



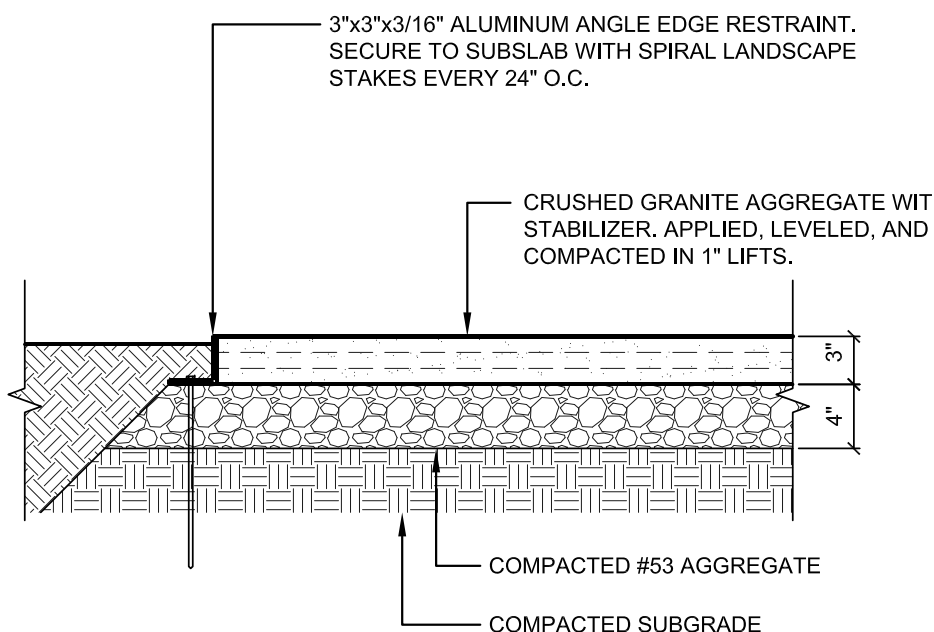
6 PRECAST PAVER WALK
SCALE: 1" = 1'-0"
REFER TO "CONCRETE JOINTING DETAIL", TYP.



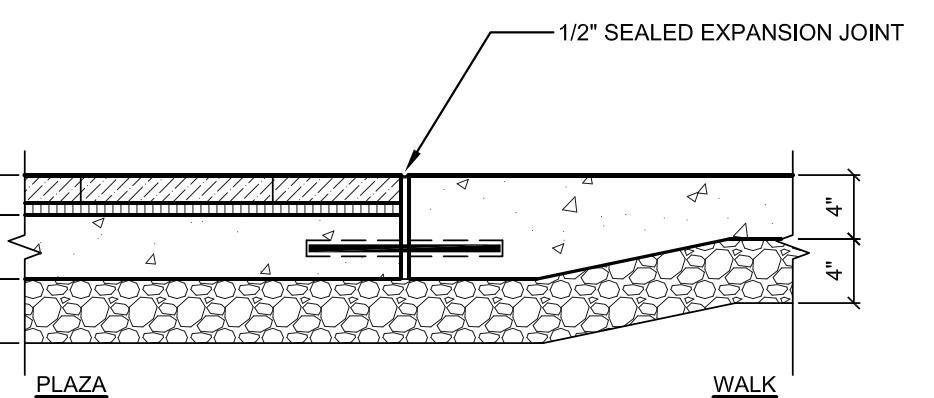
7 BRICK PAVEMENT, VEHICULAR
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REFER TO "CONCRETE JOINTING DETAIL", TYP.



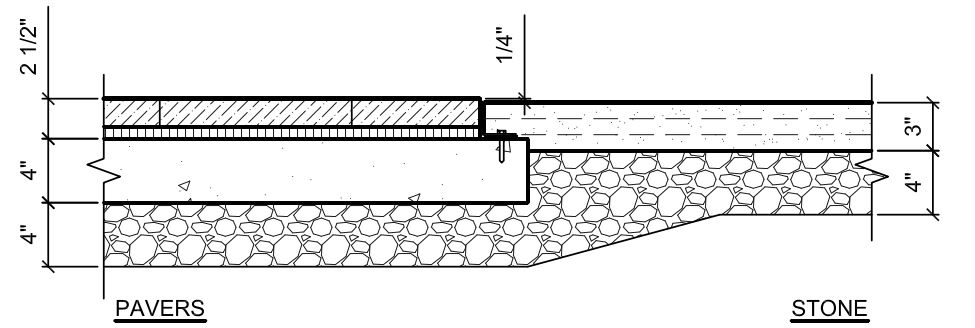
8 BRICK PAVER WALK
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REFER TO "CONCRETE JOINTING DETAIL", TYP.



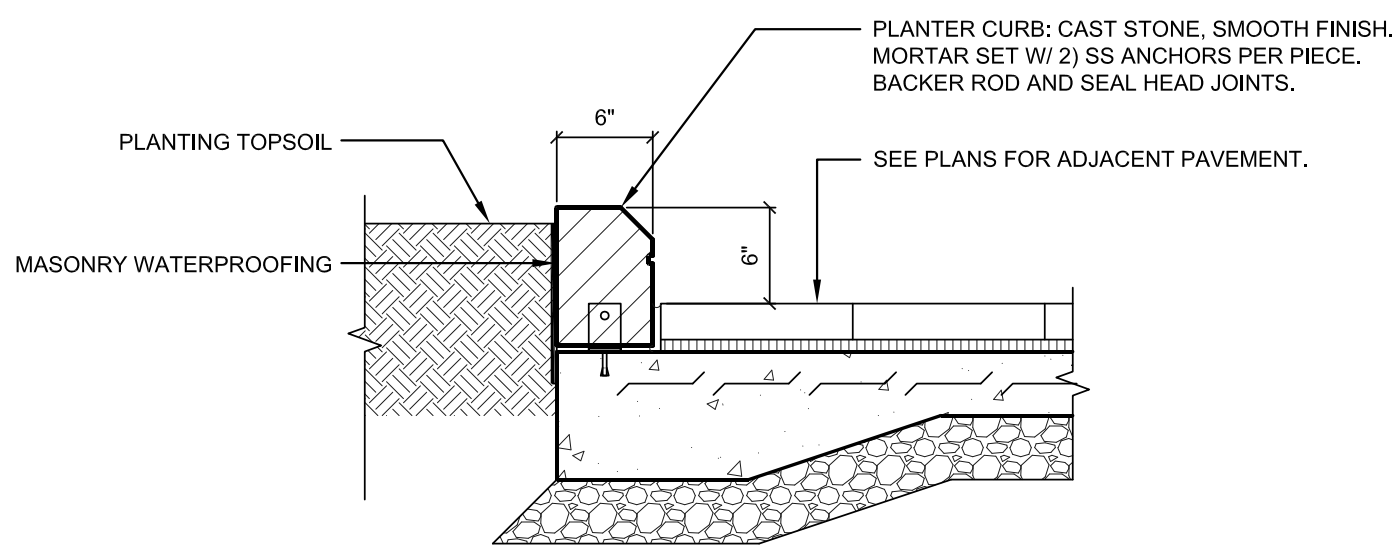
9 CRUSHED GRANITE PAVEMENT
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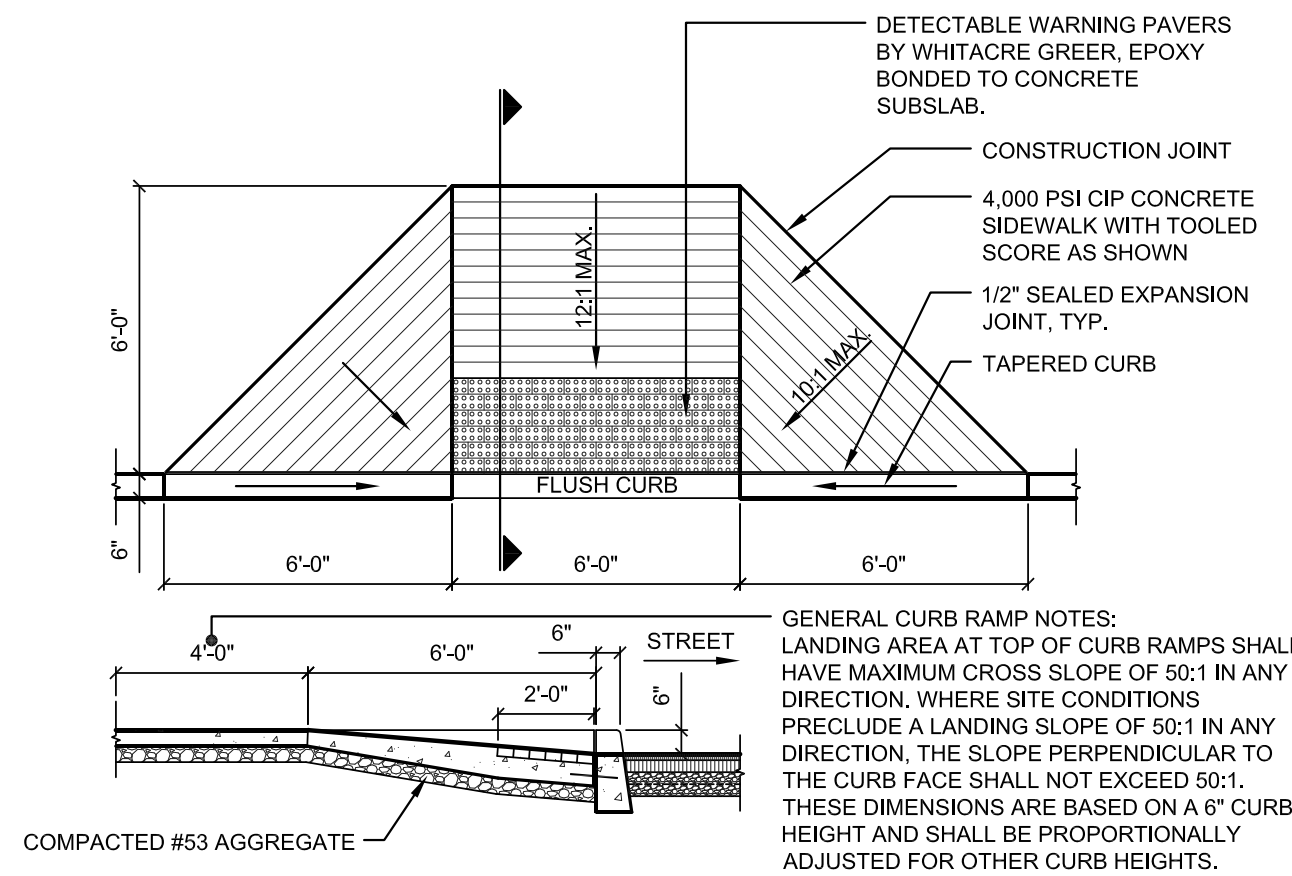
10 CONCRETE WALK / PAVERS DETAIL
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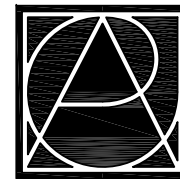
11 PAVERS / CRUSHED STONE DETAIL
SCALE: 1" = 1'-0"



12 PLANTER CURB
SCALE: 1" = 1'-0"



X CURB RAMP: TYPE A
SCALE: 1/4" = 1'-0"
REFER TO "CONCRETE JOINTING DETAIL", TYP.



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PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**

REVISIONS:			
NO.	BY	DESCRIPTION	DATE
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DRAWING NAME:

Site Details

CERTIFICATION:

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OWNER
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City #:
Project No.: 091131
Date: June 23, 2010
Drawn by: PMA
Checked by: DDR
File: 1131_SD5.00.dwg

DRAWING #:

SD 5.01



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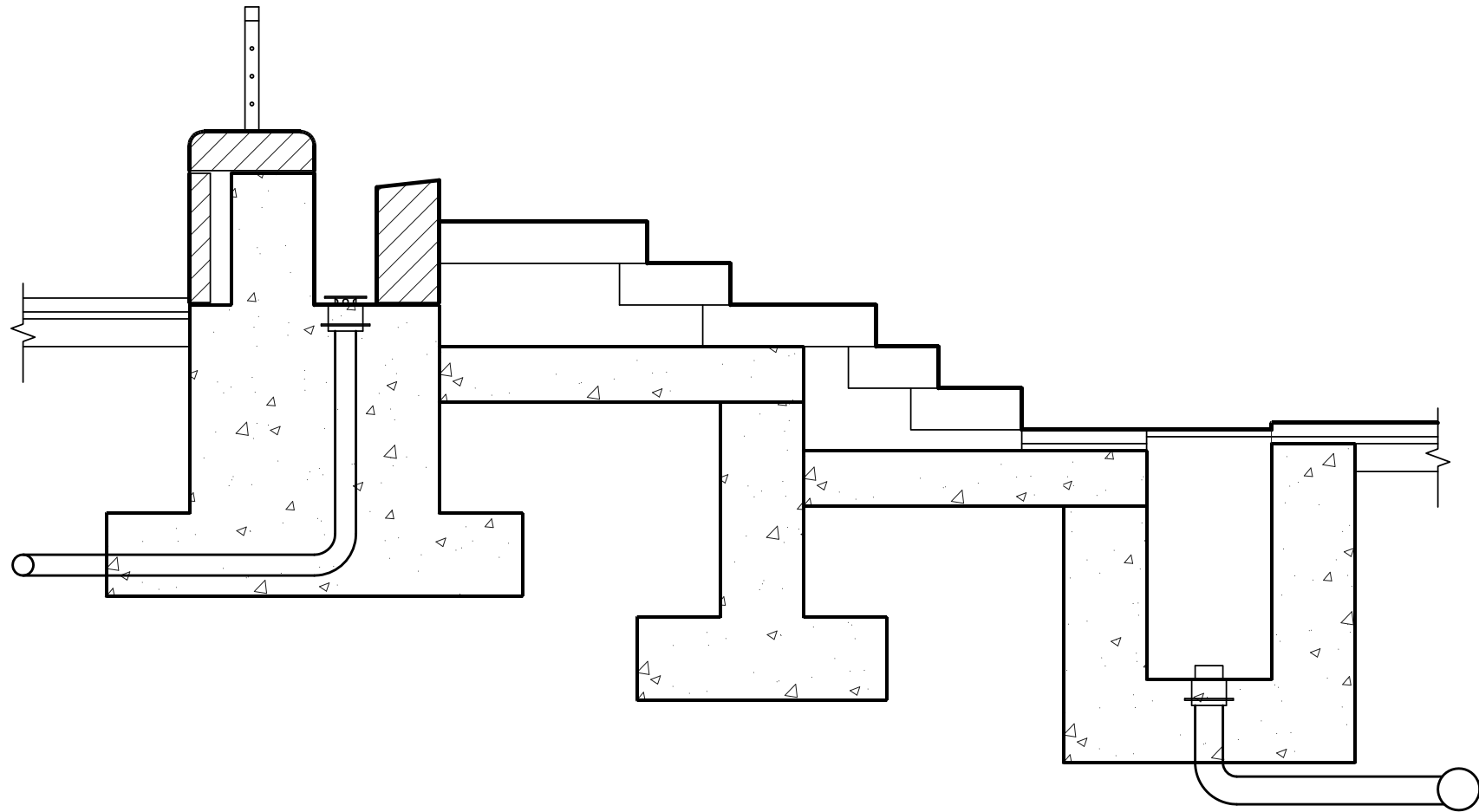
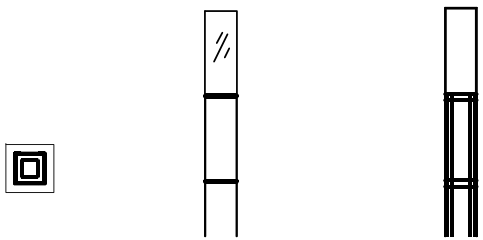
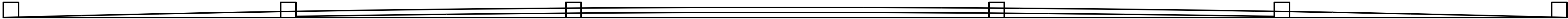
PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**

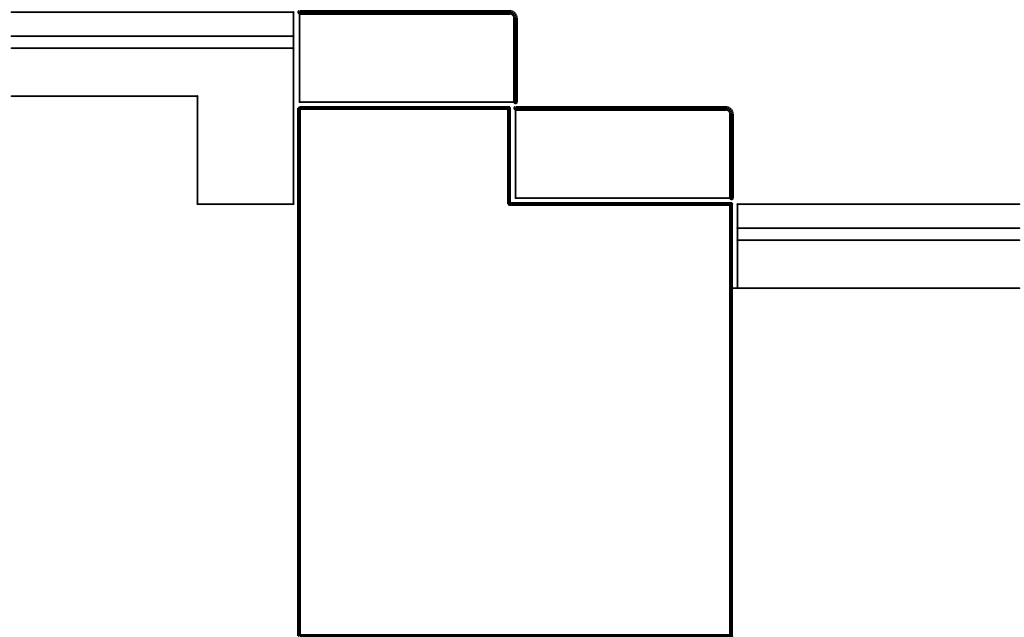
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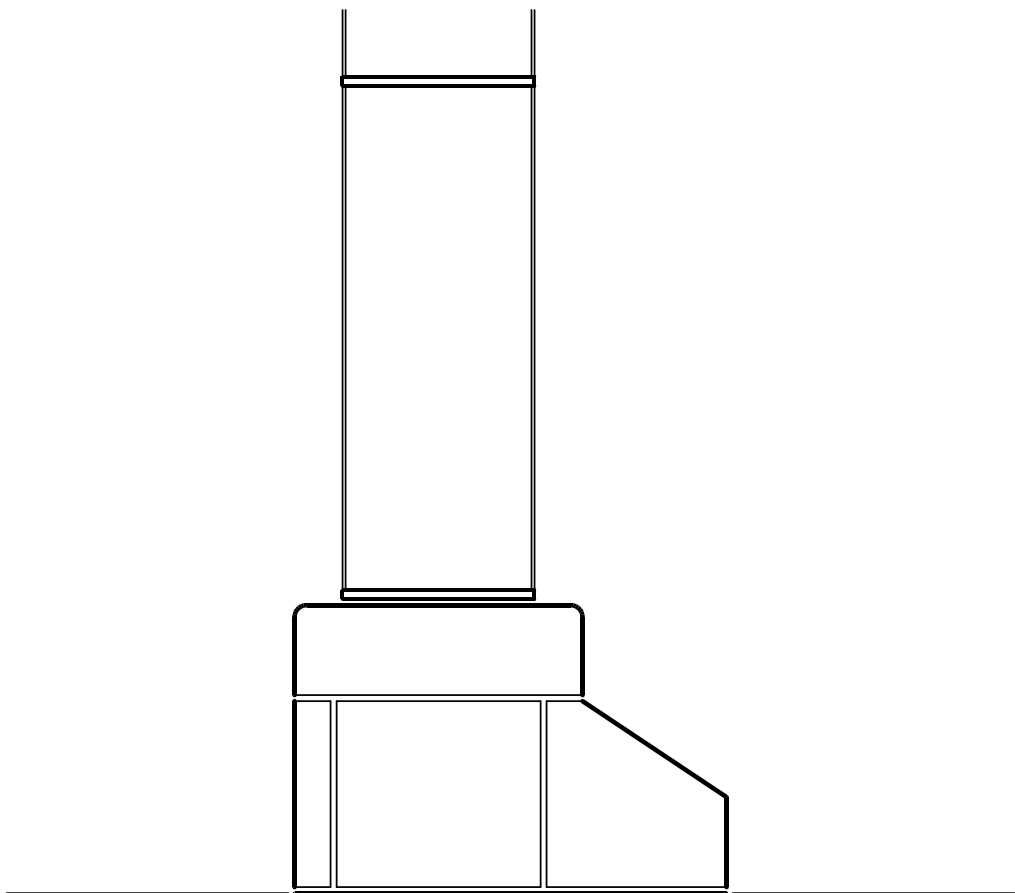
DRAWING NAME:	
Site Details	
CERTIFICATION:	City #:
50% CDs OWNER REVIEW SET	Project No.: 091131
	Date: June 23, 2010
	Drawn by: PMA
	Checked by: DDR
	File: 1131_SD5.00.dwg
DRAWING #:	
SD 5.02	



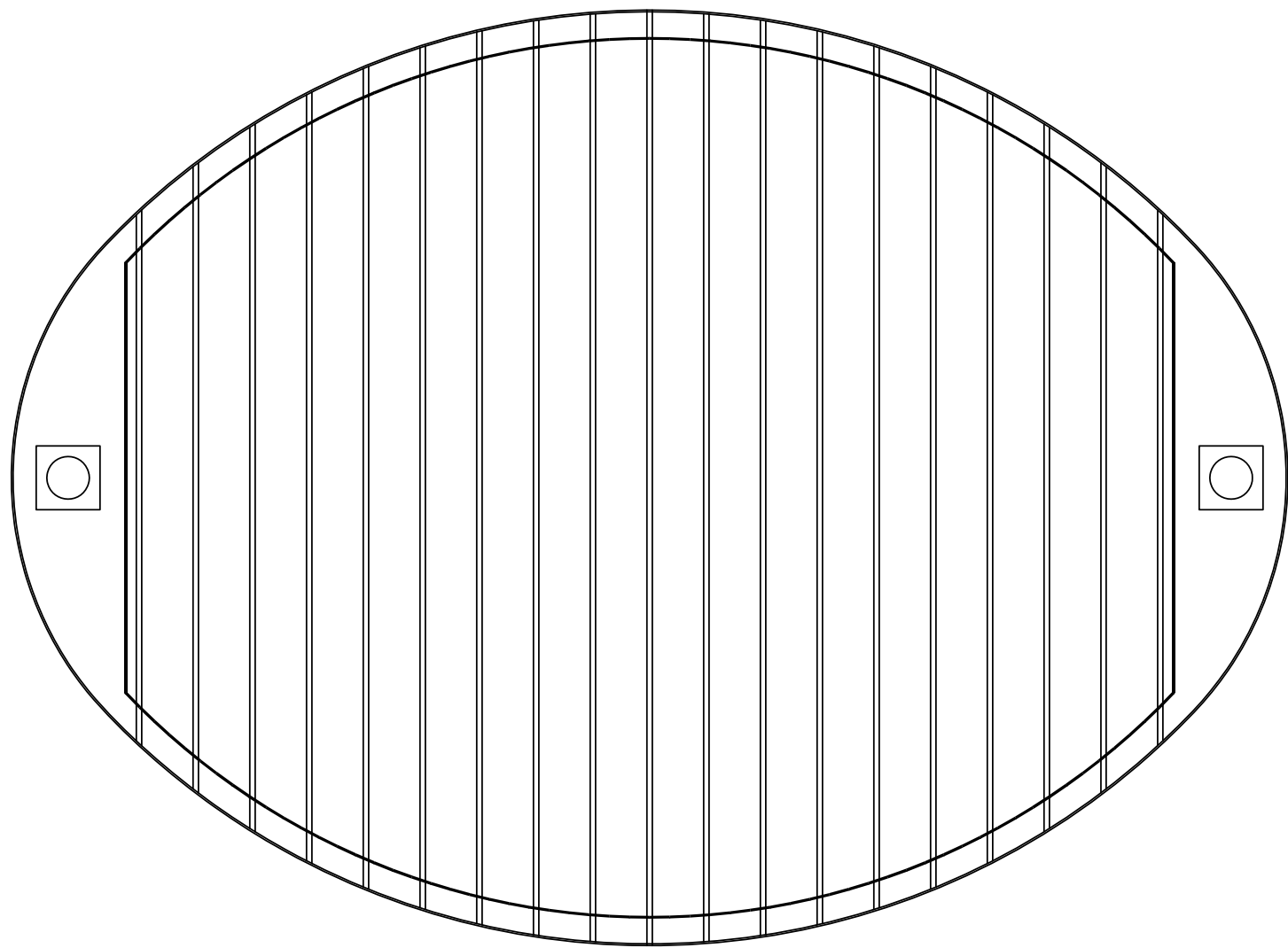
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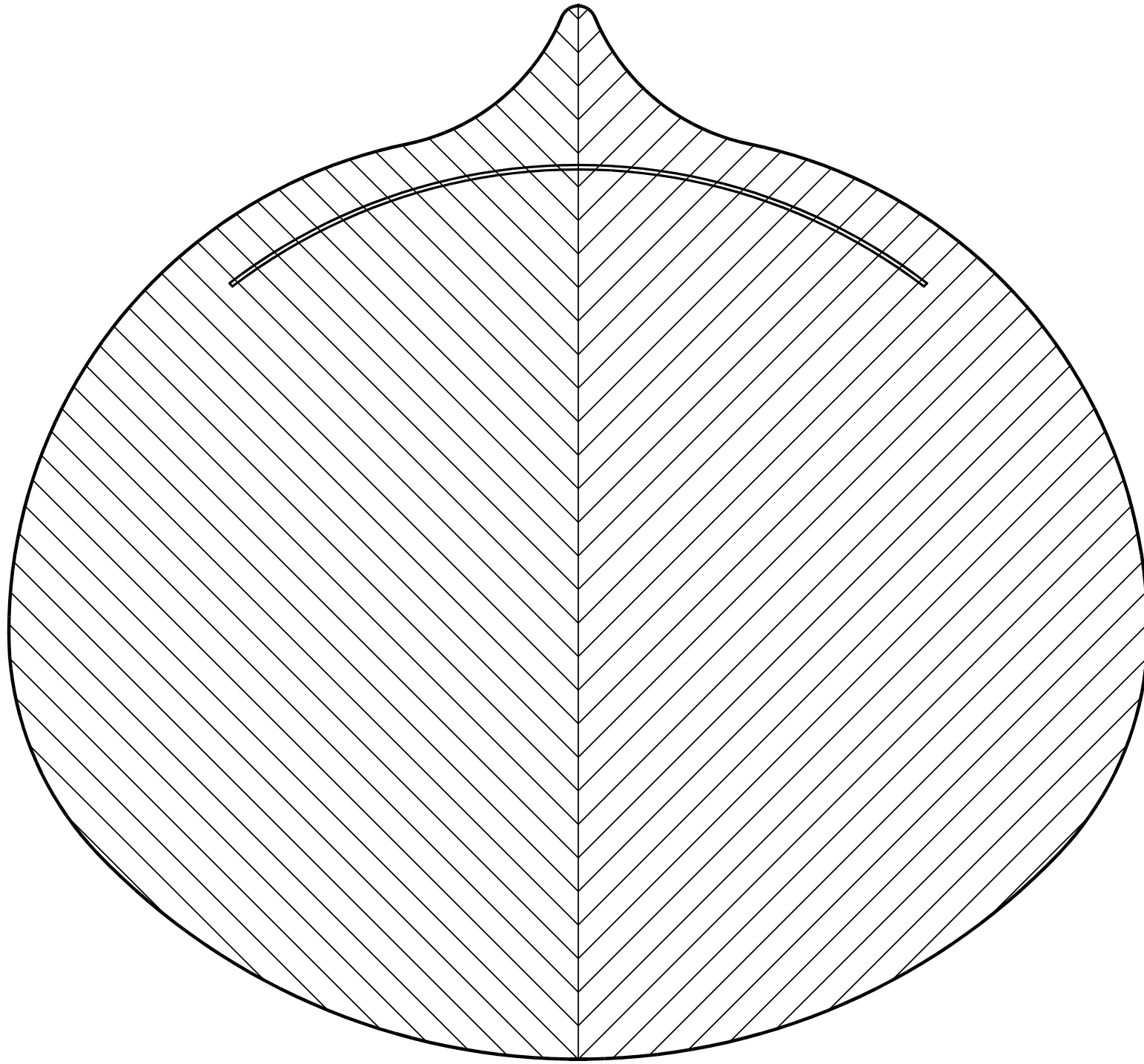
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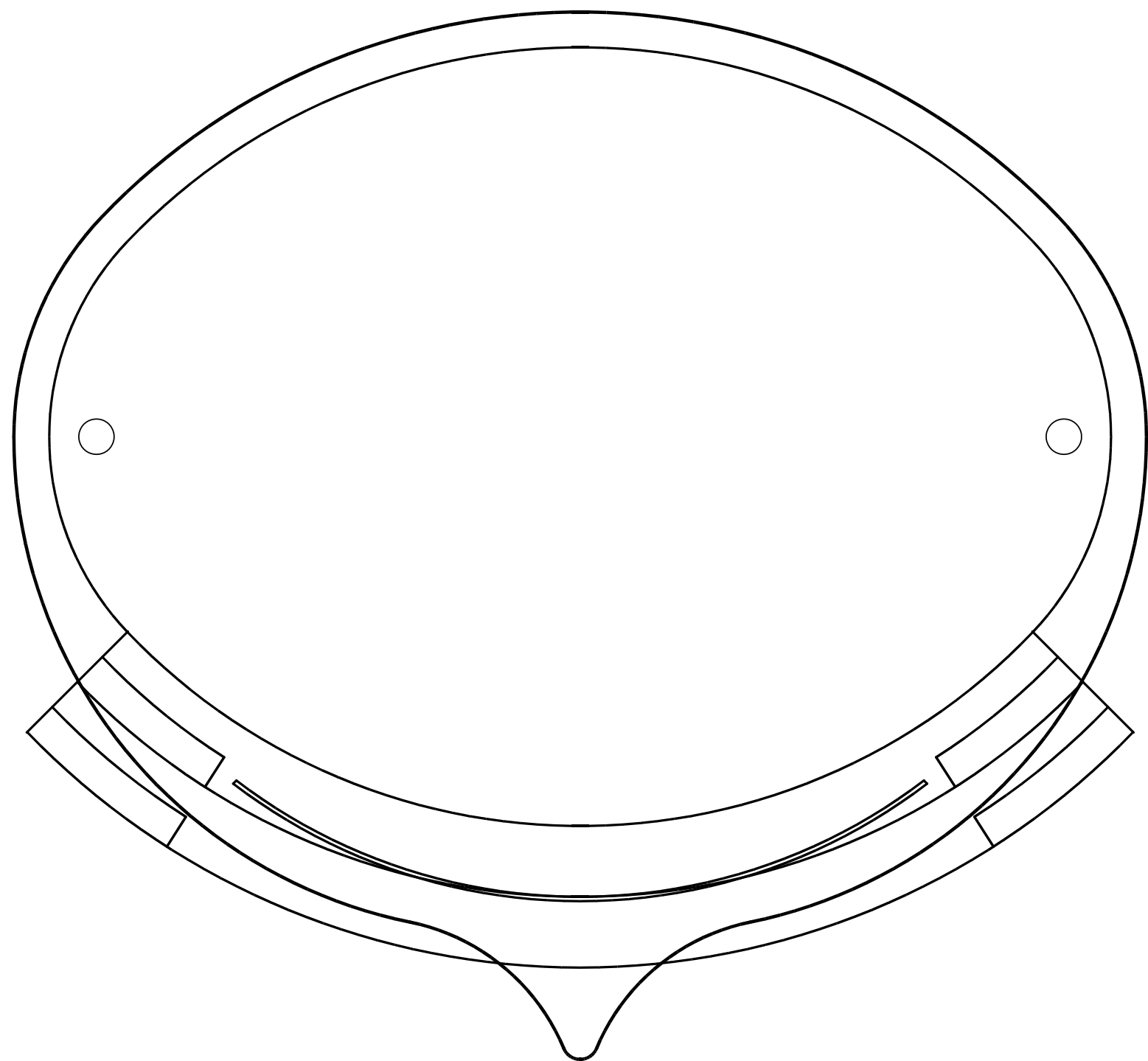
X LAWN LIGHT POLE BASE
SCALE: 3/4" = 1'-0"



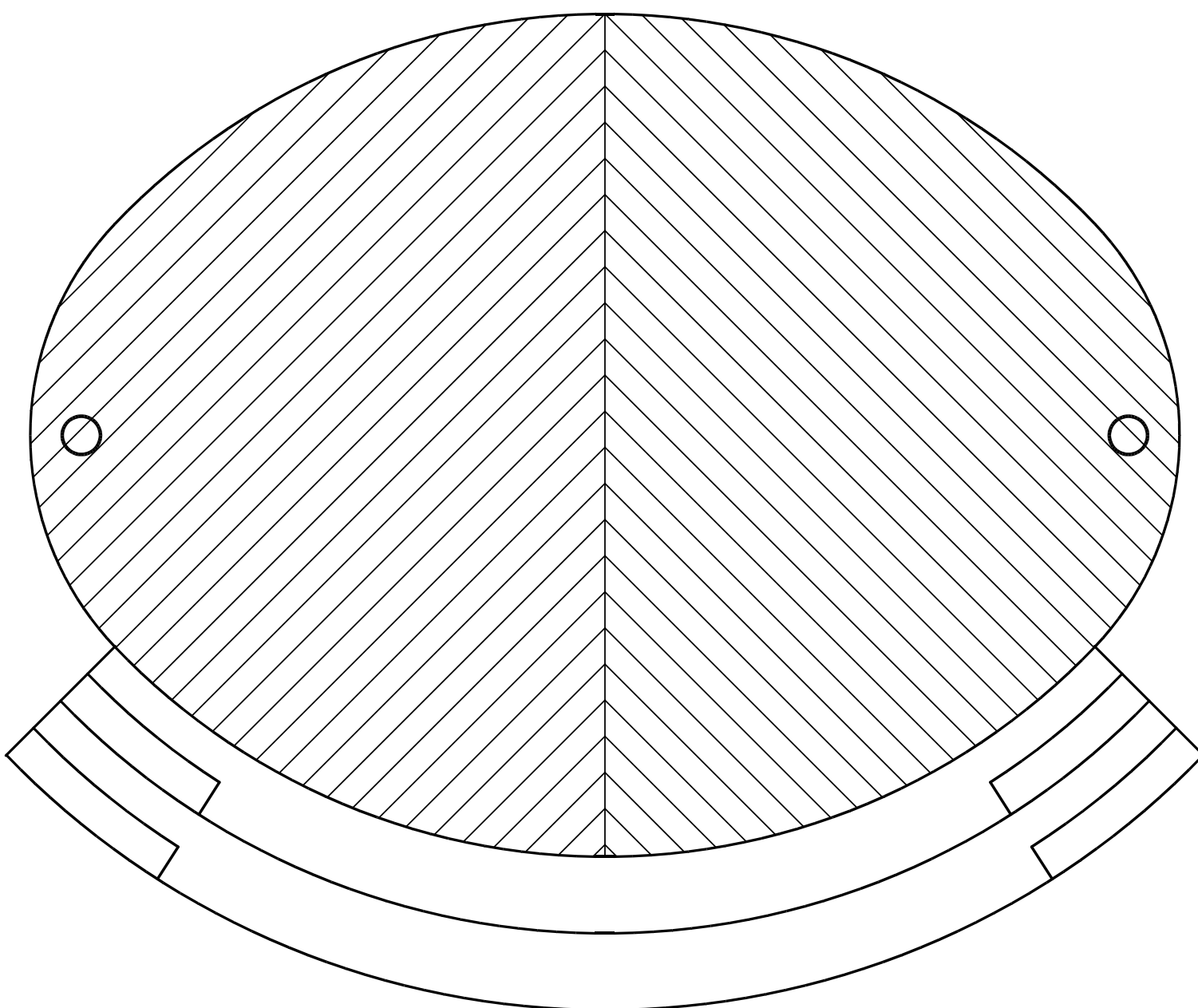
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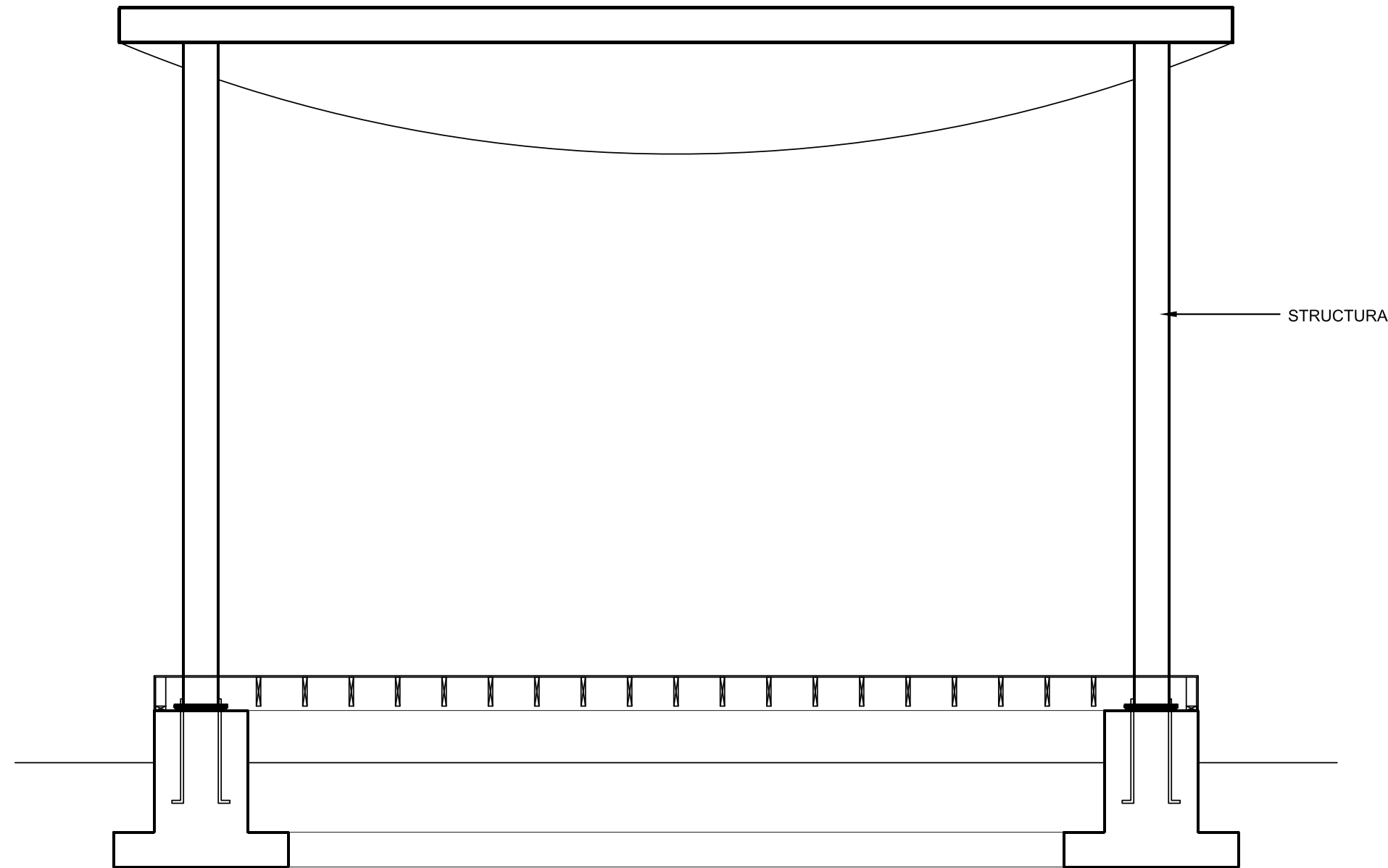
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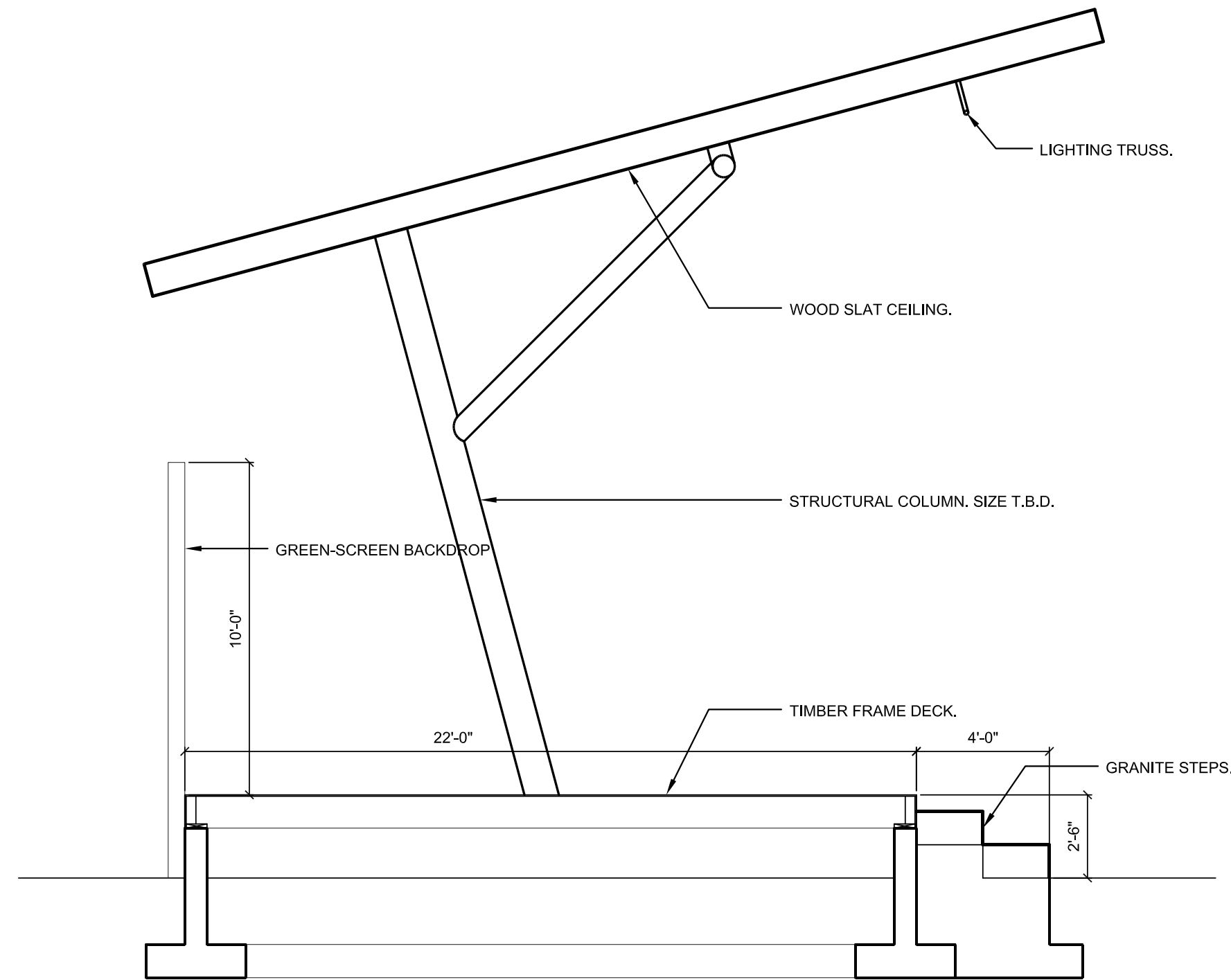
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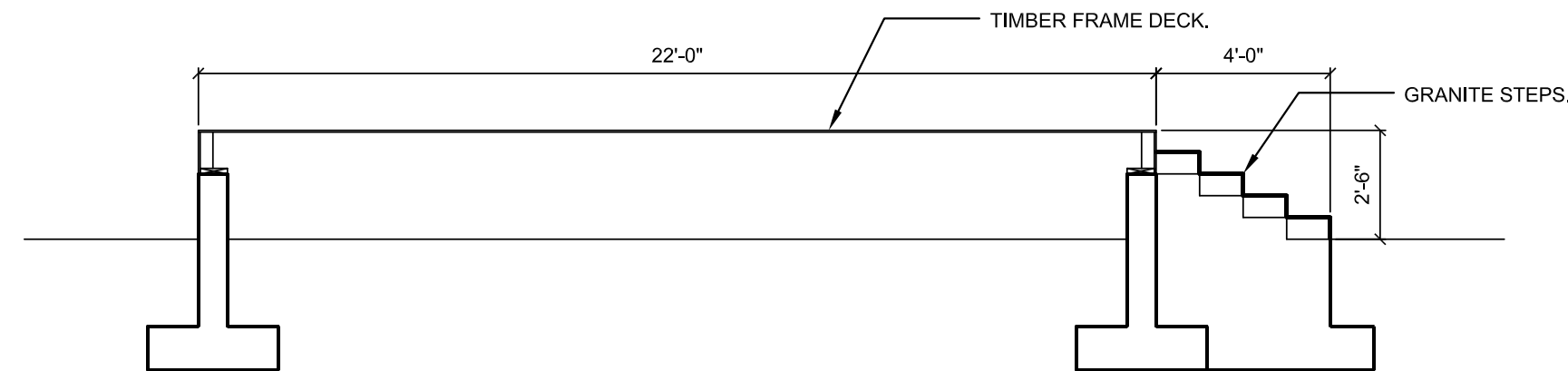
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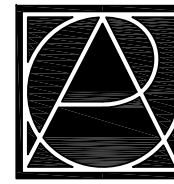
X NORTHWEST / SOUTHEAST SECTION
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X NORTHEAST / SOUTHWEST SECTION
SCALE: 1/4" = 1'-0"



X SECTION THROUGH STAGE AND STEPS
SCALE: 1/4" = 1'-0"



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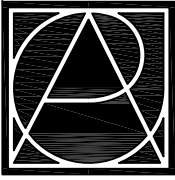
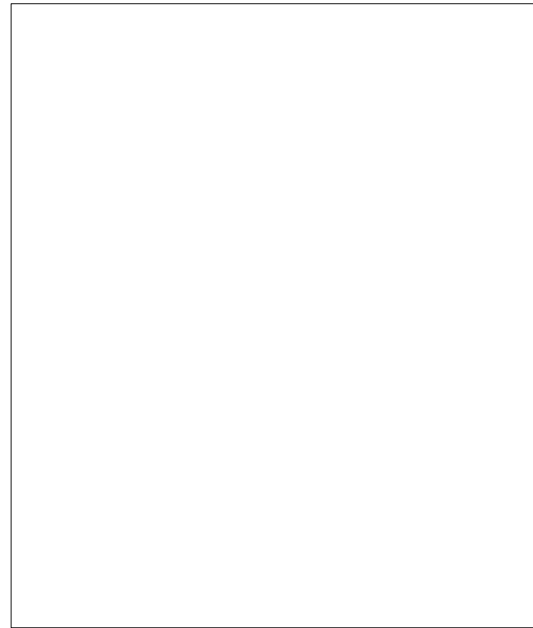
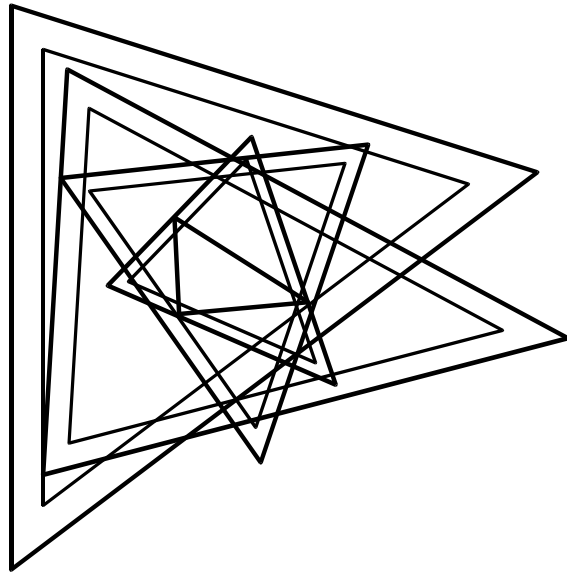
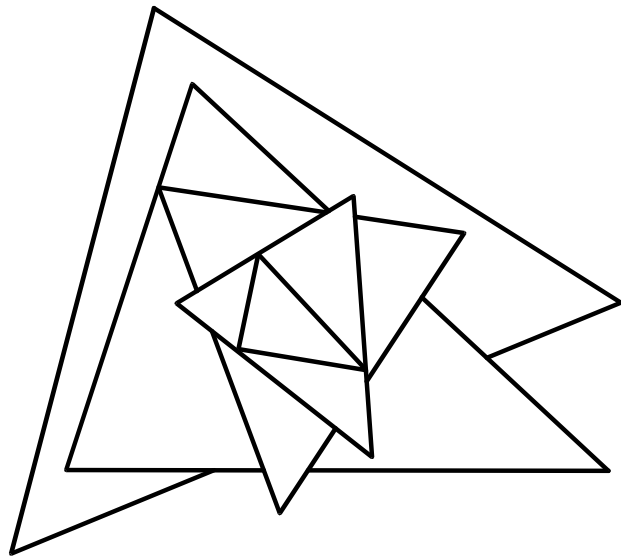
PROJECT:
**Main Street Square
Site Development
Rapid City, South Dakota**

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DRAWING NAME:
Site Details
CITY #:
Project No.: 091131
Date: June 23, 2010
Drawn by: PMA
Checked by: DDR
File: 1131_SD5.00.dwg
DRAWING #:
SD 5.03

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TE [605] 394-4165 FX [605] 355-3083

Destination Rapid City
606 Main Street, Rapid City, SD 57701
TE [605] 716-7979 FX [605] 341-6415

CONSULTANTS:

FourFront Design, Inc.
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TE [605] 342-9470 FX [605] 342-2377

Skyline Engineering, LLC
Electrical and Mechanical Engineering
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Albertson Engineering, Inc.
Structural Engineering
3202 W Main Street, Suite C
Rapid City, SD 57702
TE [605] 343.9606 FX [605] 341.7395

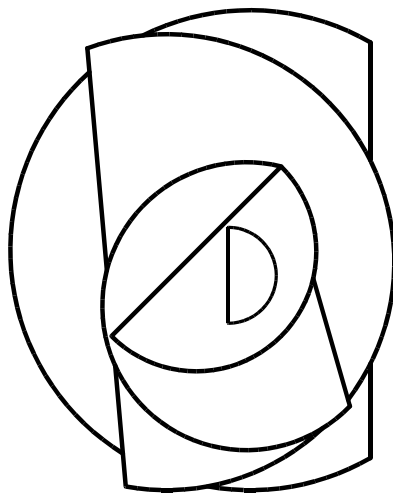
PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**

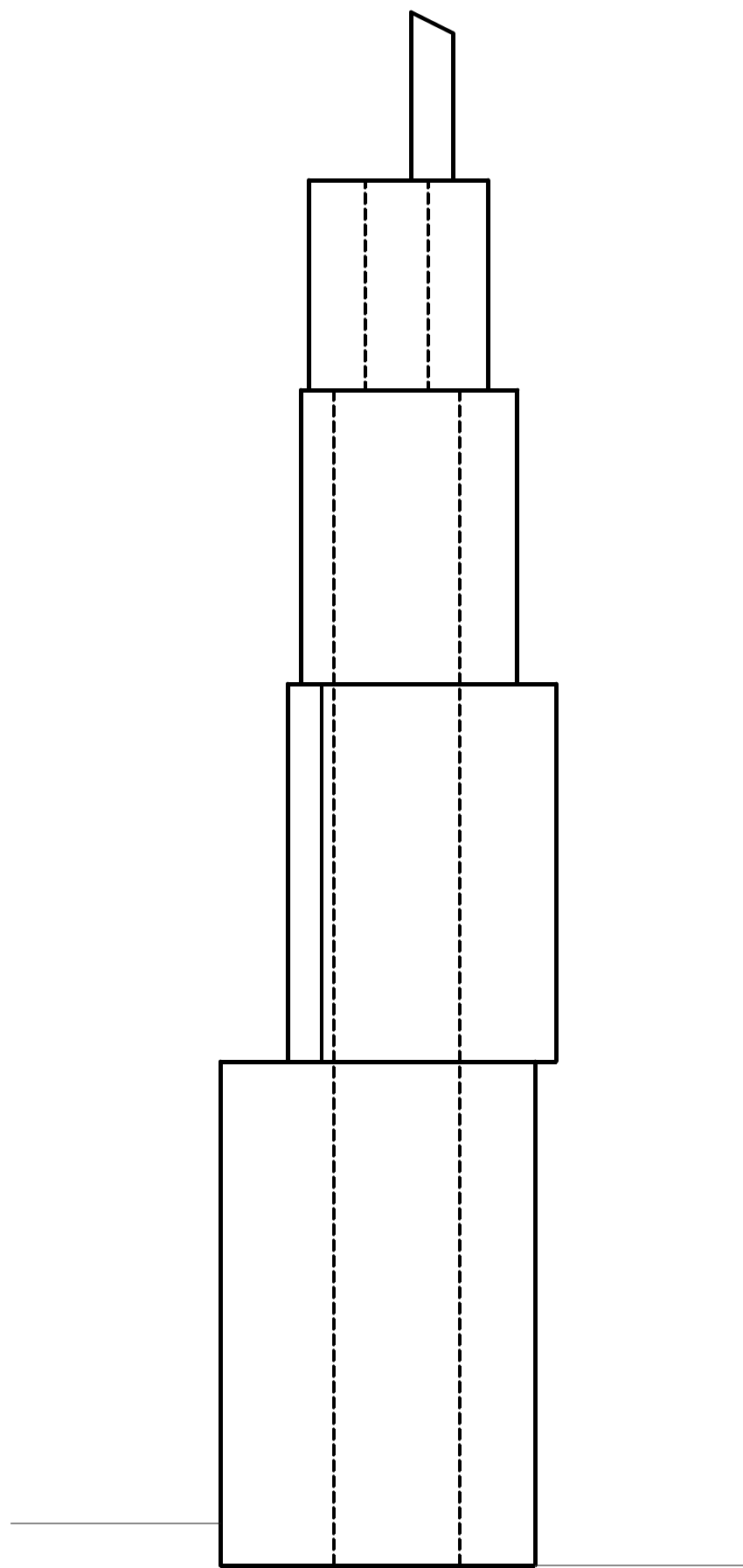
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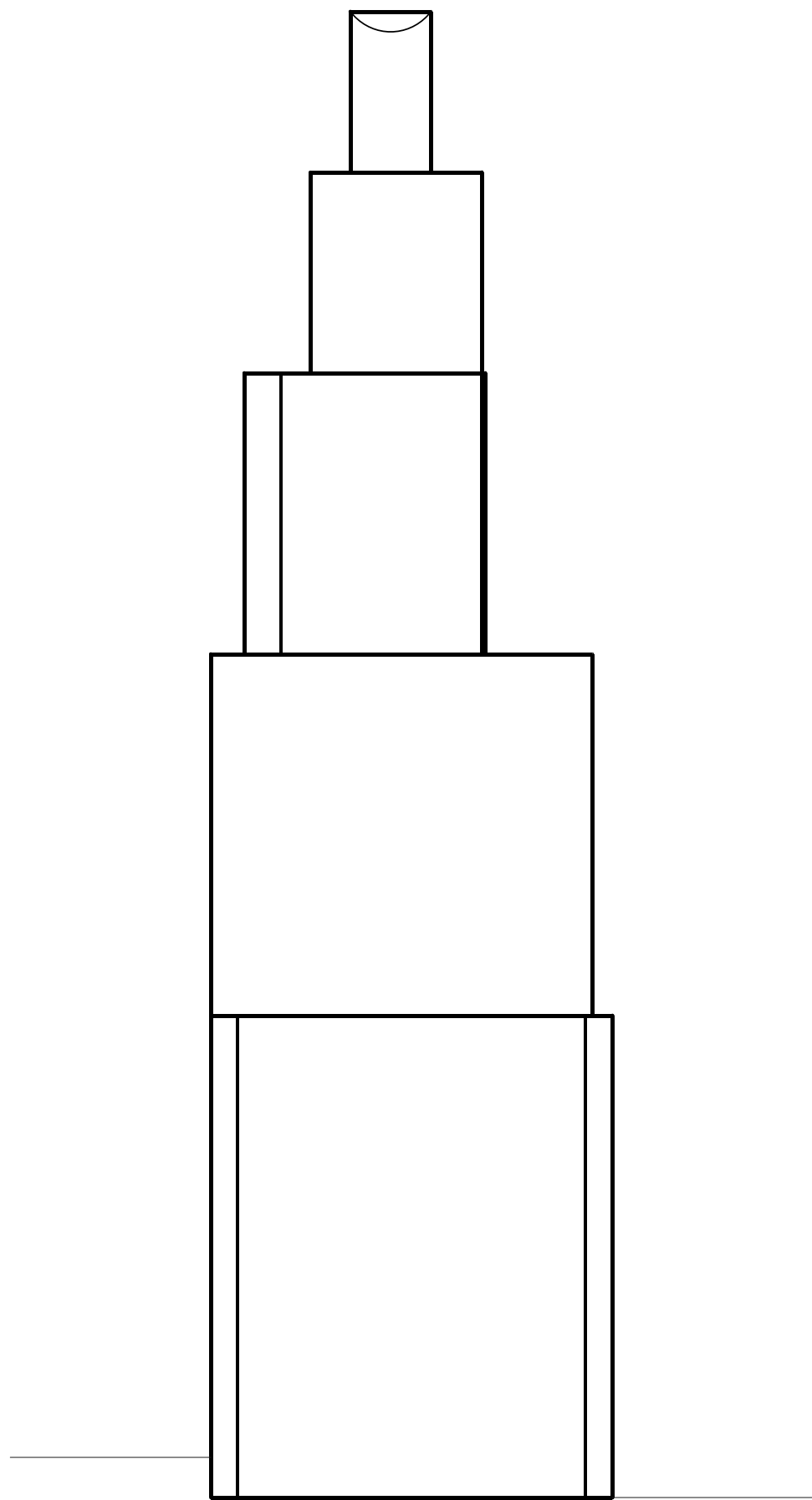
DRAWING NAME	
Black Hills Spire Details	
CERTIFICATION: 50% CDs OWNER REVIEW SET	City #: Project No.: 091131 Date: June 23, 2010 Drawn by: PMA Checked by: DDR File: 1131_SD5.2x.dwg
	DRAWING #: SD 5.21



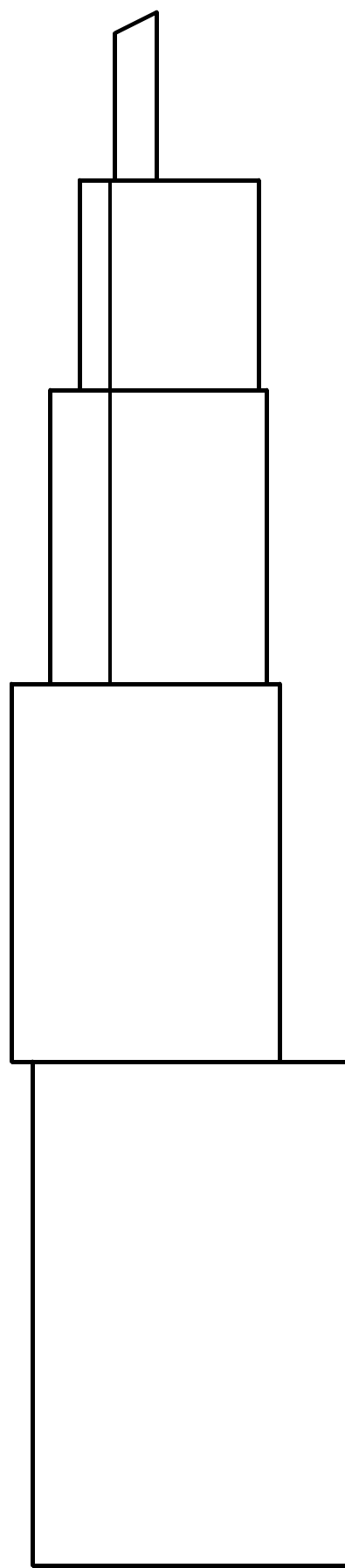
BADLANDS SPIRE PLAN
SCALE: 1/4" = 1'-0"



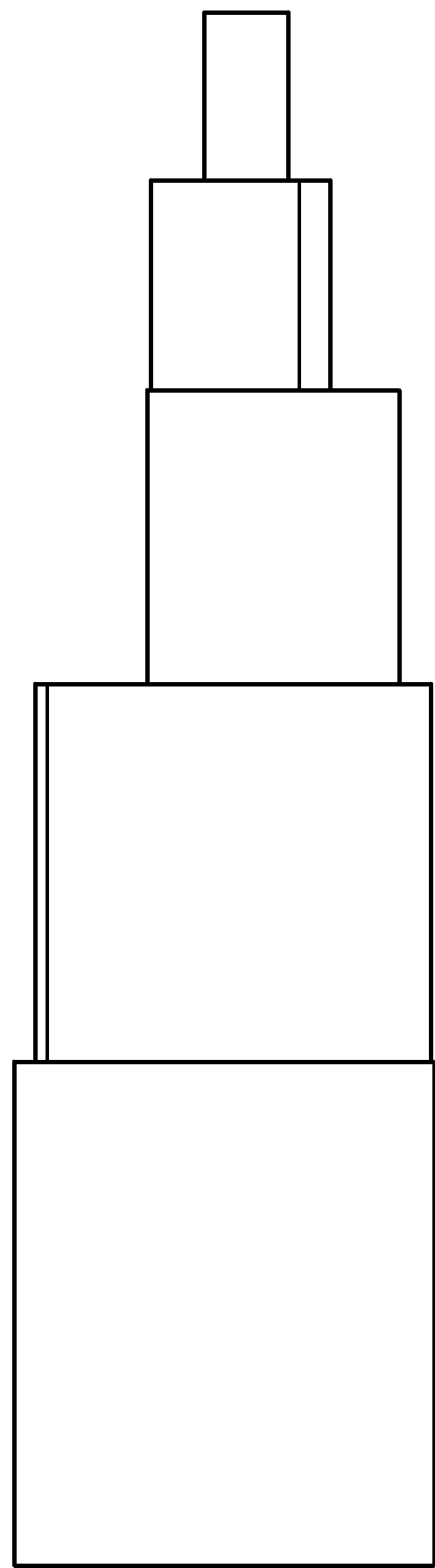
BADLANDS SPIRE SOUTH ELEVATION
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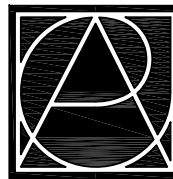
BADLANDS SPIRE EAST ELEVATION
SCALE: 1/4" = 1'-0"



BADLANDS SPIRE NORTH ELEVATION
SCALE: 1/4" = 1'-0"



BADLANDS SPIRE WEST ELEVATION
SCALE: 1/4" = 1'-0"



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additional offices in:
Indianapolis, IN | Muncie, IN

PREPARED FOR:
City of Rapid City
Public Works Department
300 Sixth Street, Rapid City, SD 57701
TE [605] 394-4165 FX [605] 355-3083
Destination Rapid City
606 Main Street, Rapid City, SD 57701
TE [605] 716-7979 FX [605] 341-6415

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**Main Street Square
Site Development
Rapid City, South Dakota**

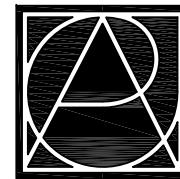
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DRAWING NAME:
Badlands Spire Details

CERTIFICATION:
**50% CDs
OWNER
REVIEW SET**
City #:
Project No.: 091131
Date: June 23, 2010
Drawn by: PMA
Checked by: DDR
File: 1131_SD5.2x.dwg

DRAWING #:
SD 5.22



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300 Sixth Street, Rapid City, SD 57701
TE [605] 394-4165 FX [605] 355-3083

Destination Rapid City
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PROJECT:

Main Street Square Site Development Rapid City, South Dakota

REVISIONS:

NO.	BY	DESCRIPTION	DATE
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DRAWING NAME:

Site Details

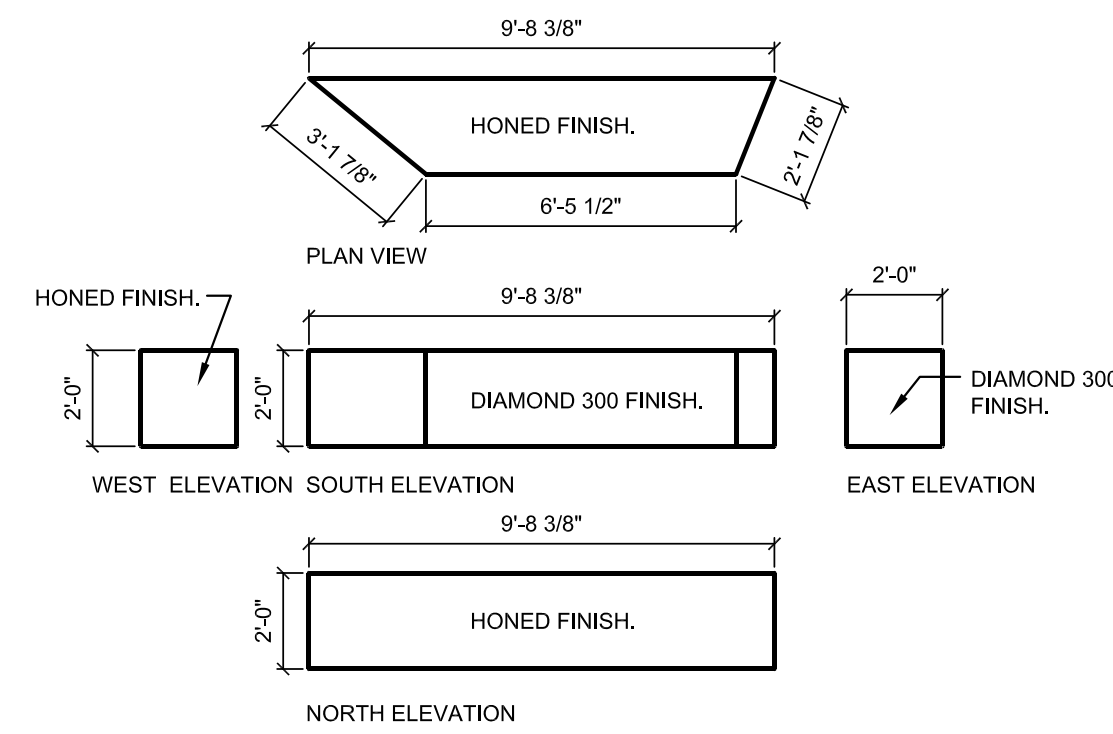
CERTIFICATION:

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OWNER
REVIEW SET

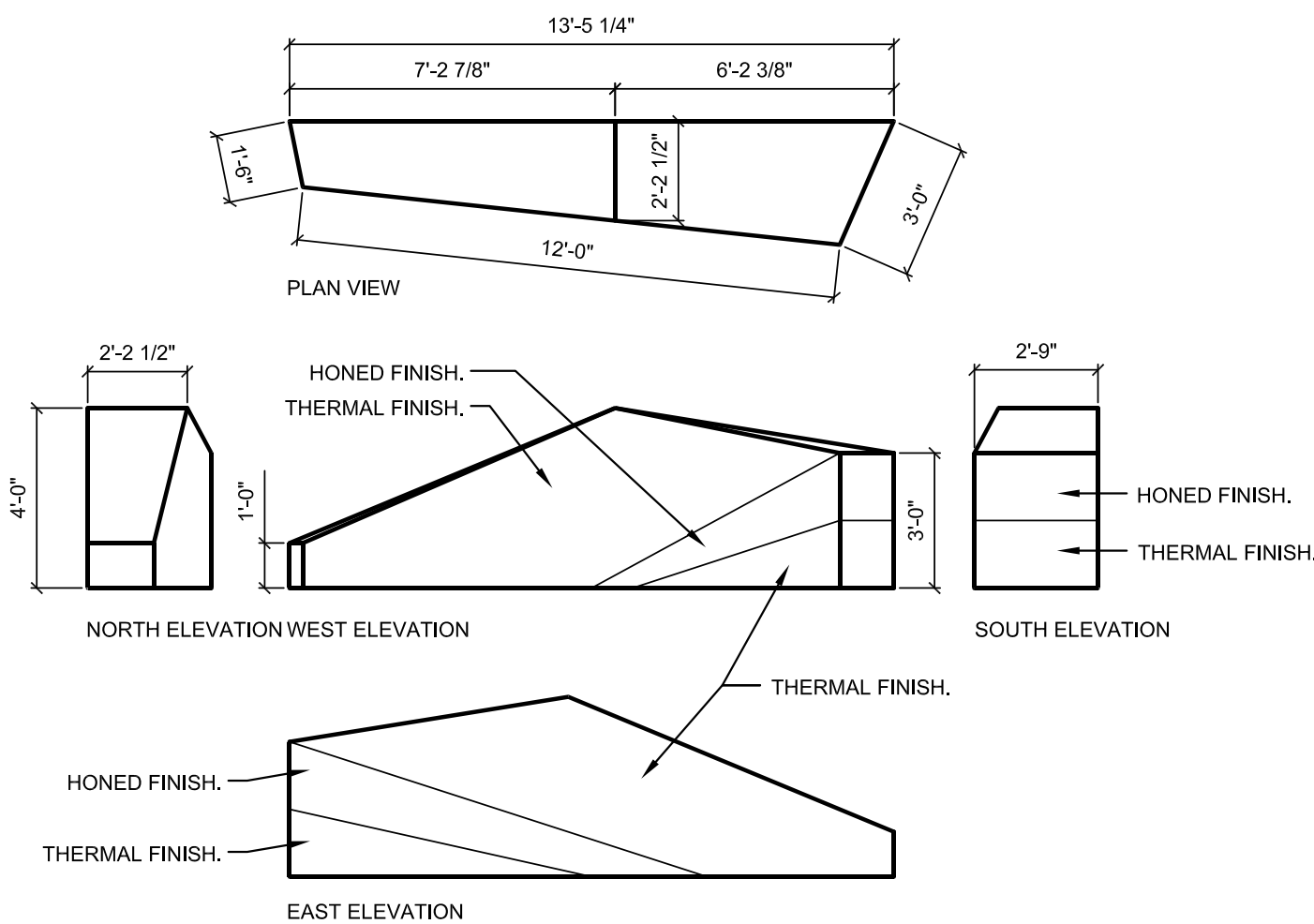
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Project No.: 091131
Date: June 23, 2010
Drawn by: PMA
Checked by: DDR
File: 1131_SD5.2x.dwg

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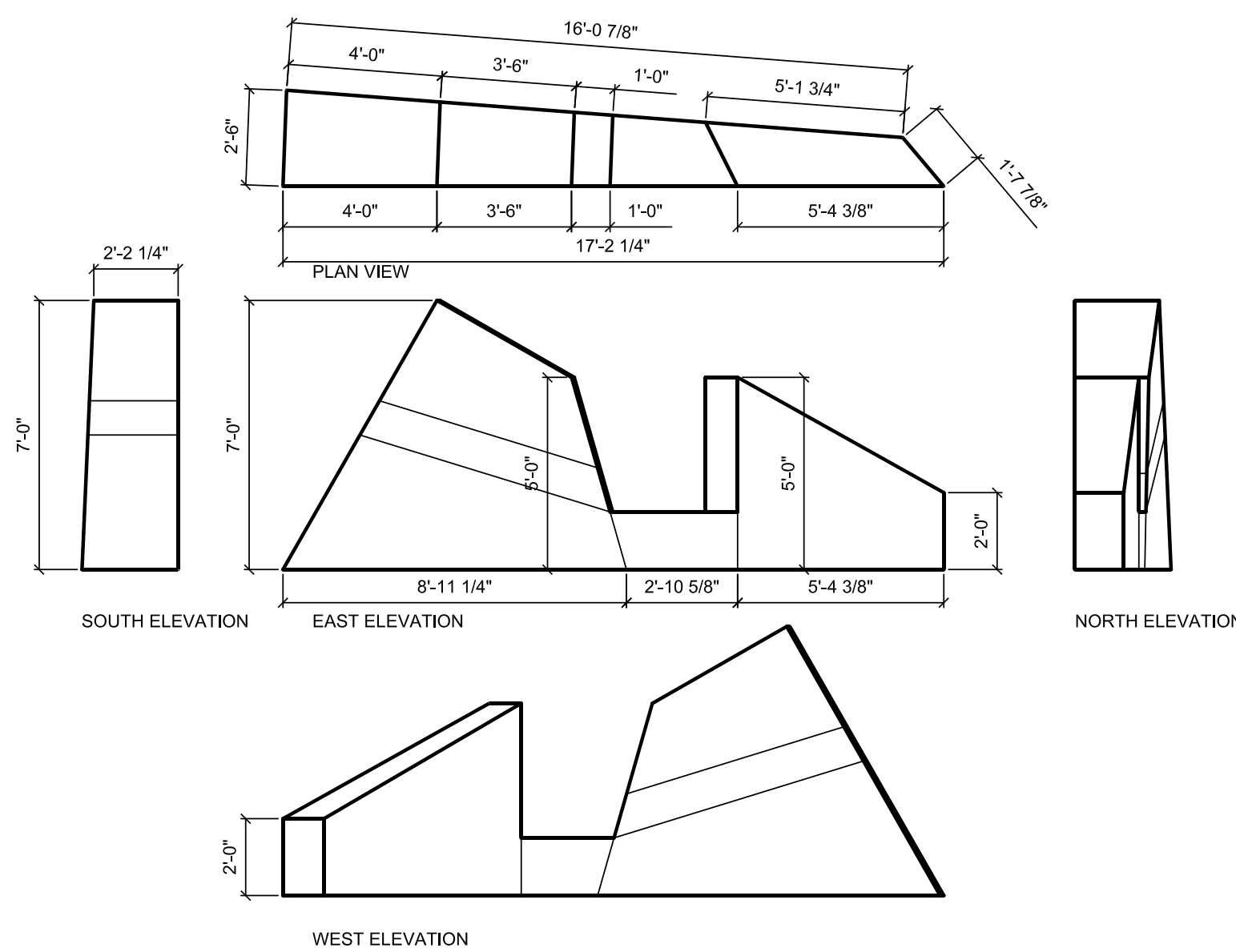
SD 5.23



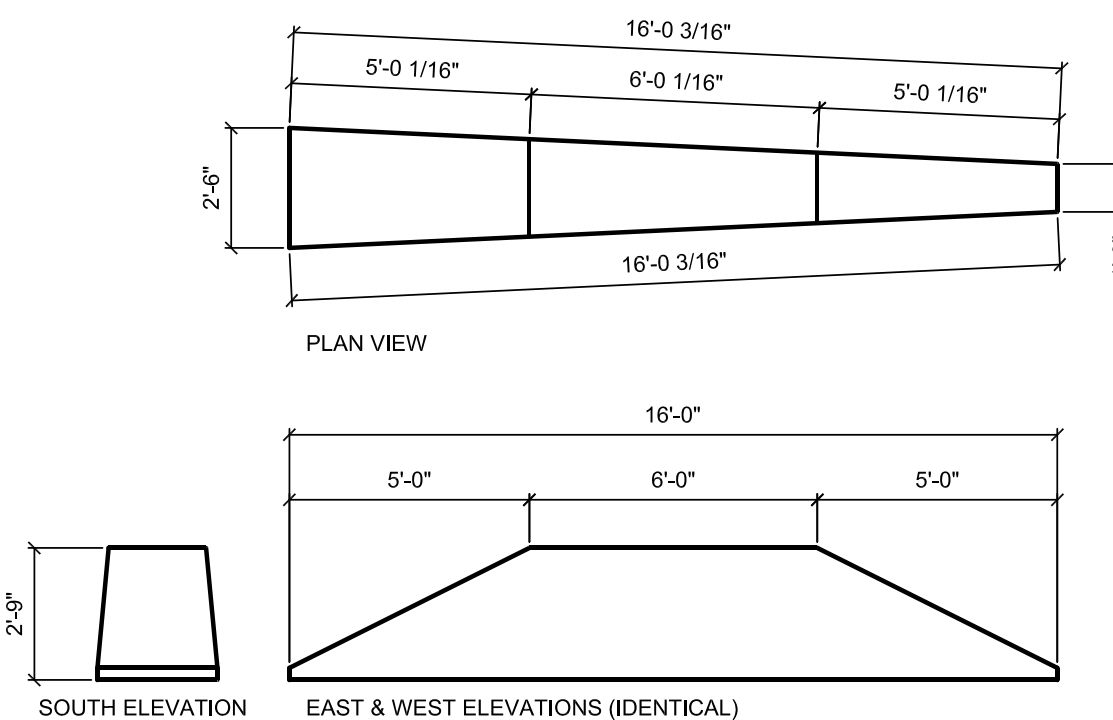
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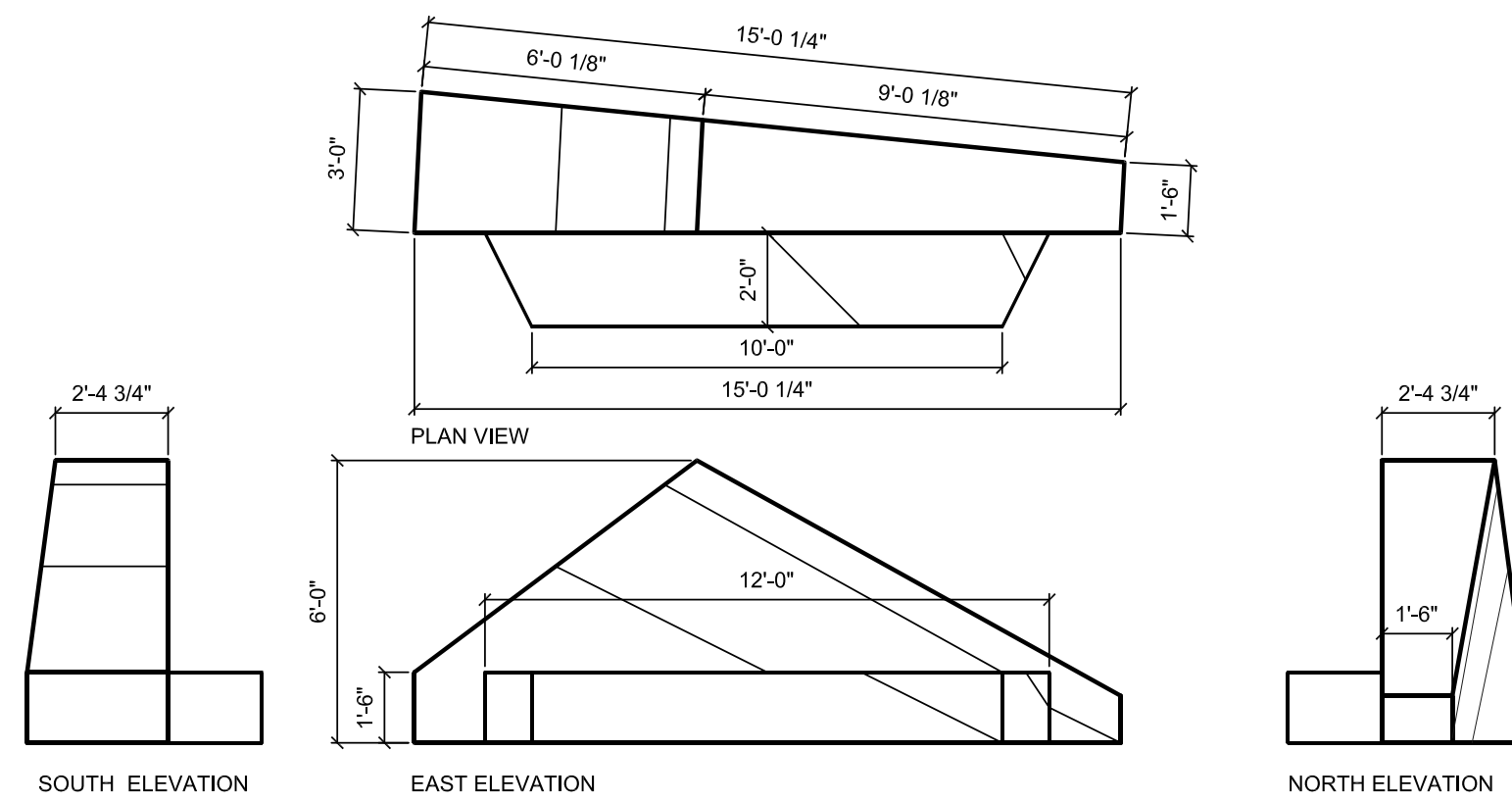
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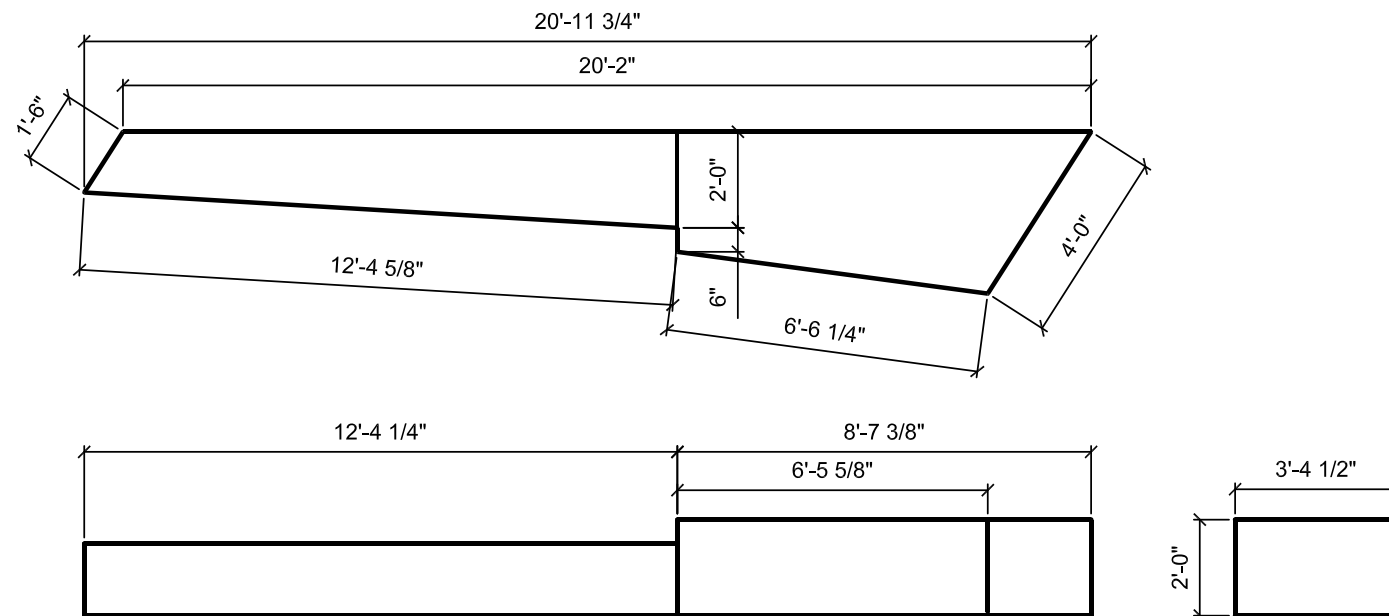
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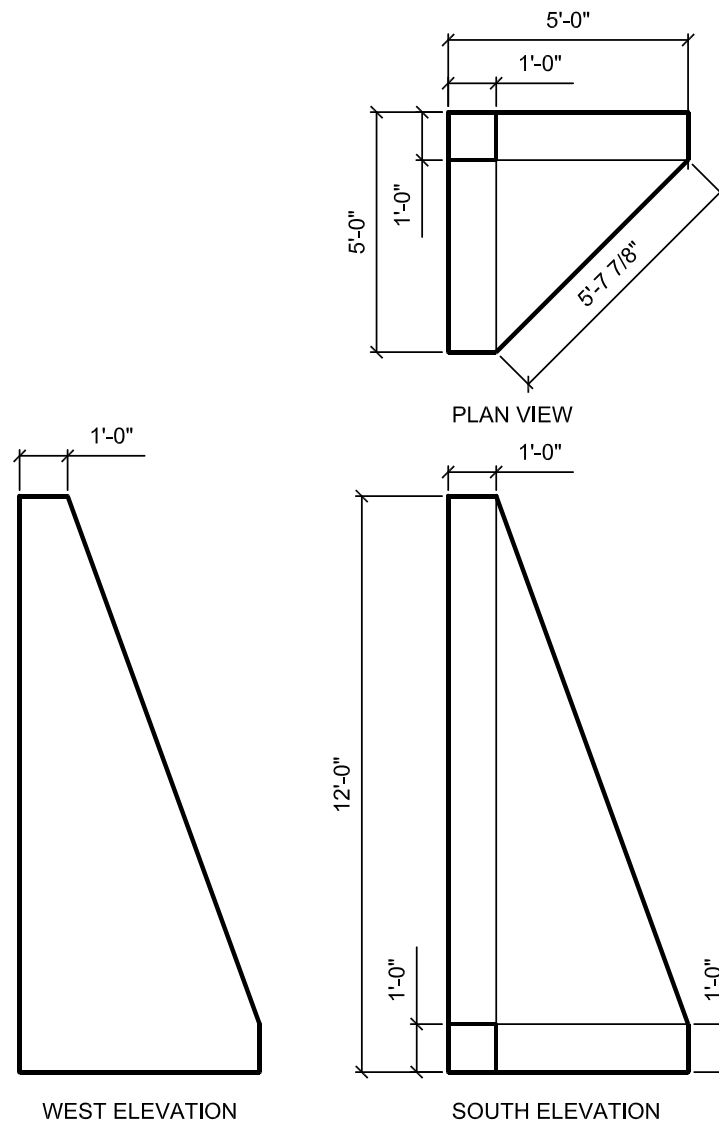
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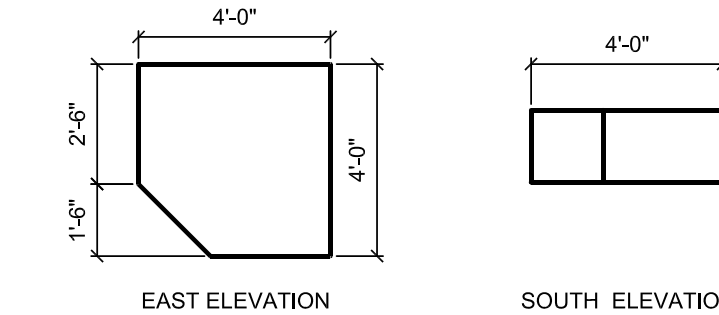
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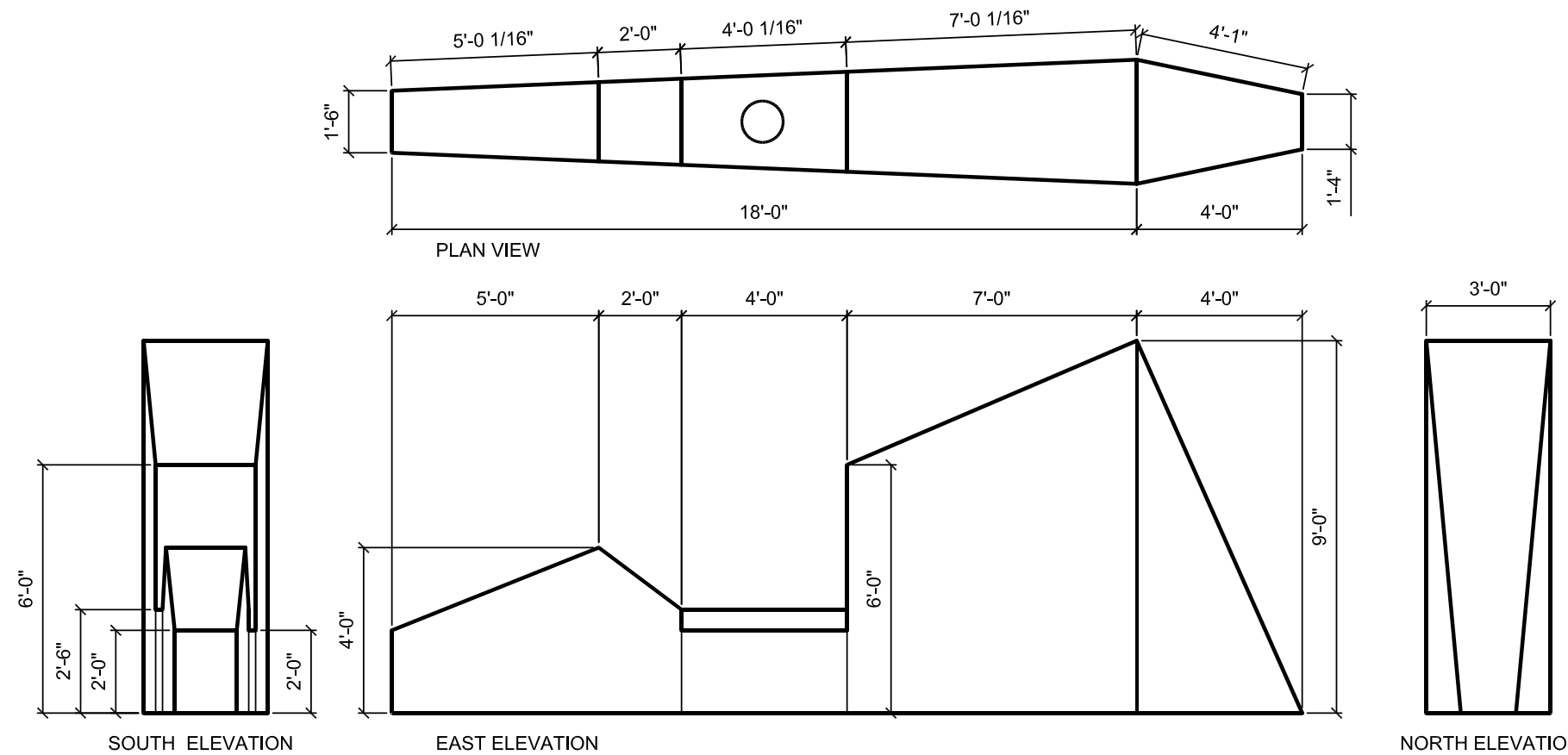
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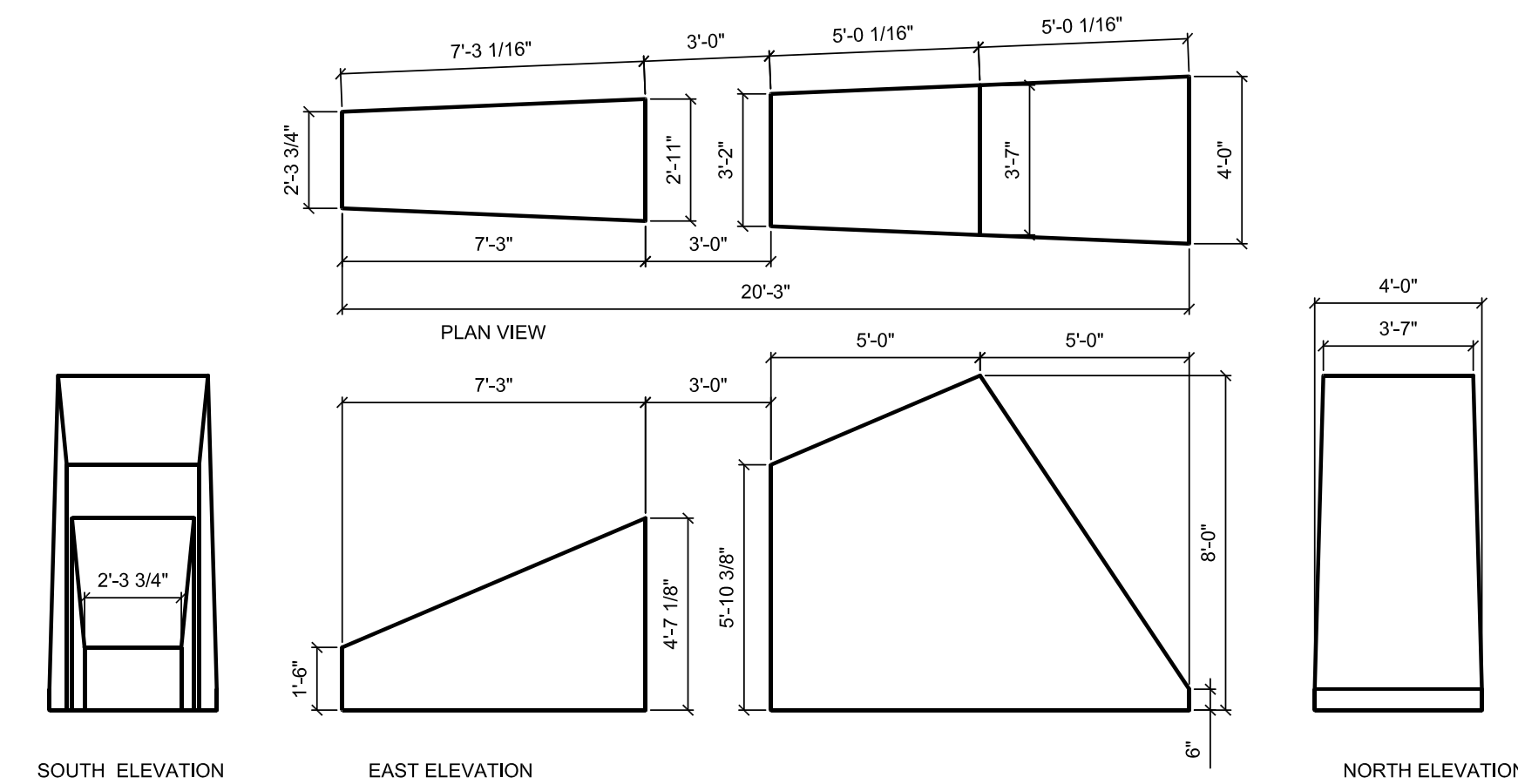
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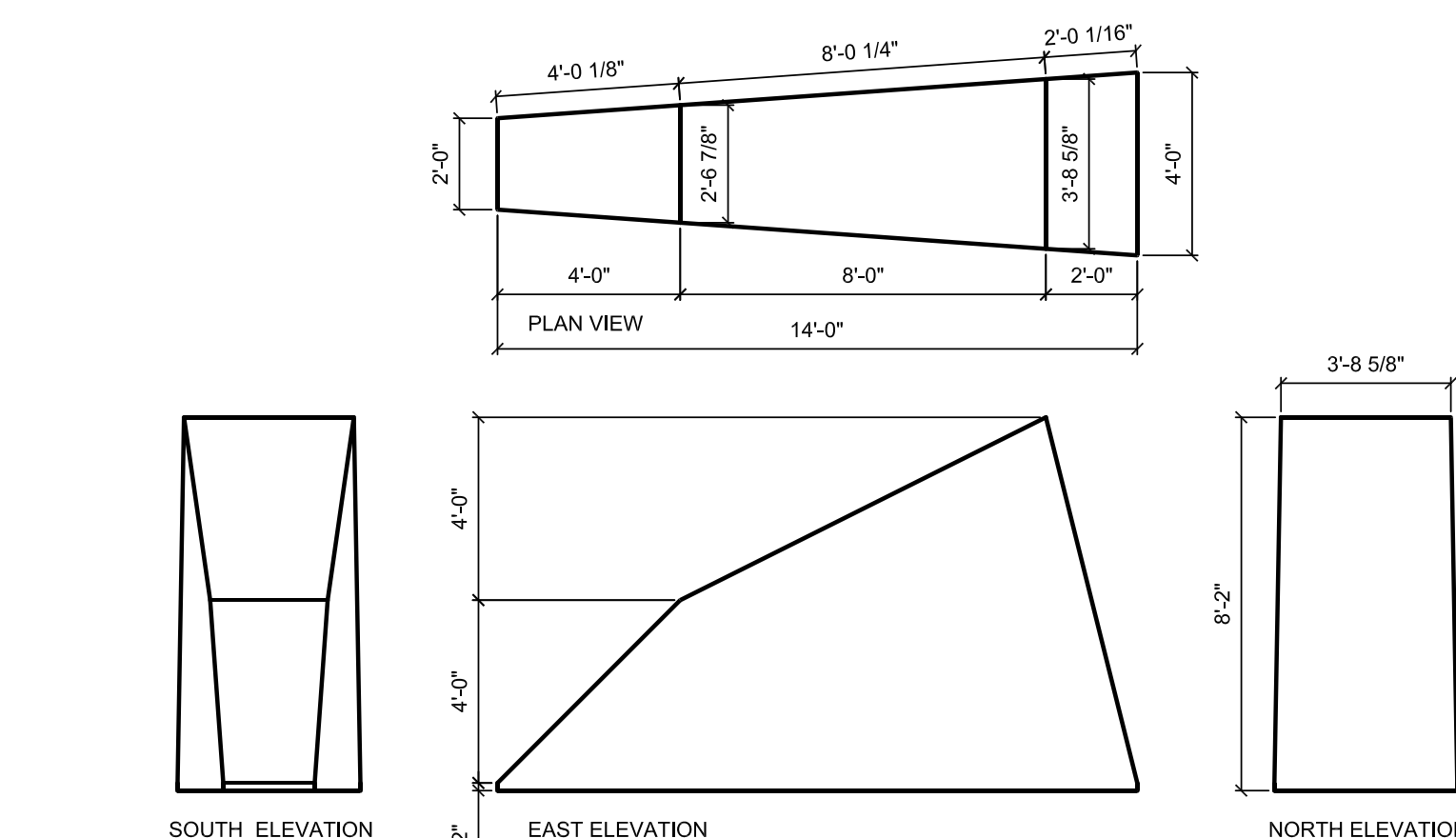
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8 STONE: BH 08
SCALE: 1/4" = 1'-0"



9 STONE: BH 09
SCALE: 1/4" = 1'-0"



10 STONE: BH 10
SCALE: 1/4" = 1'-0"



PREPARED FOR

Destination Rapid City
606 Main Street, Rapid City, SD 57701
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PROJECT:

Main Street Square Site Development Rapid City, South Dakota

REVISIONS:			
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CERTIFICATION:	City #: _____
<p>50% CDs</p> <p>OWNER</p> <p>REVIEW SET</p>	Project No.: 091131
	Date: June 23, 2010
	Drawn by: PMA
	Checked by: DDR
	File: 1131_SD5.2x.dwg

SD 5.24



1 STONE: BL 01
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2 STONE: BL 02
SCALE: 1/4" = 1'-0"



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SCALE: 1/4" = 1'-0"



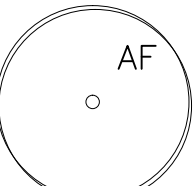
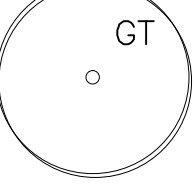
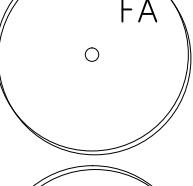
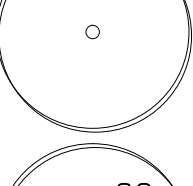
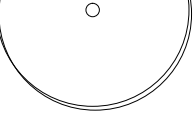
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(X) STONE: BL 13
SCALE: 1/4" = 1'-0"





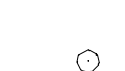






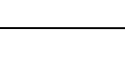



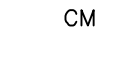

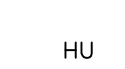
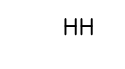
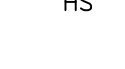

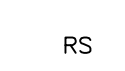


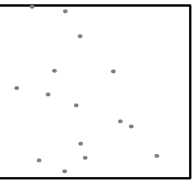
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PLANT SCHEDULE:

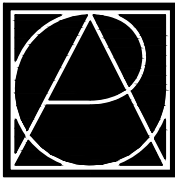
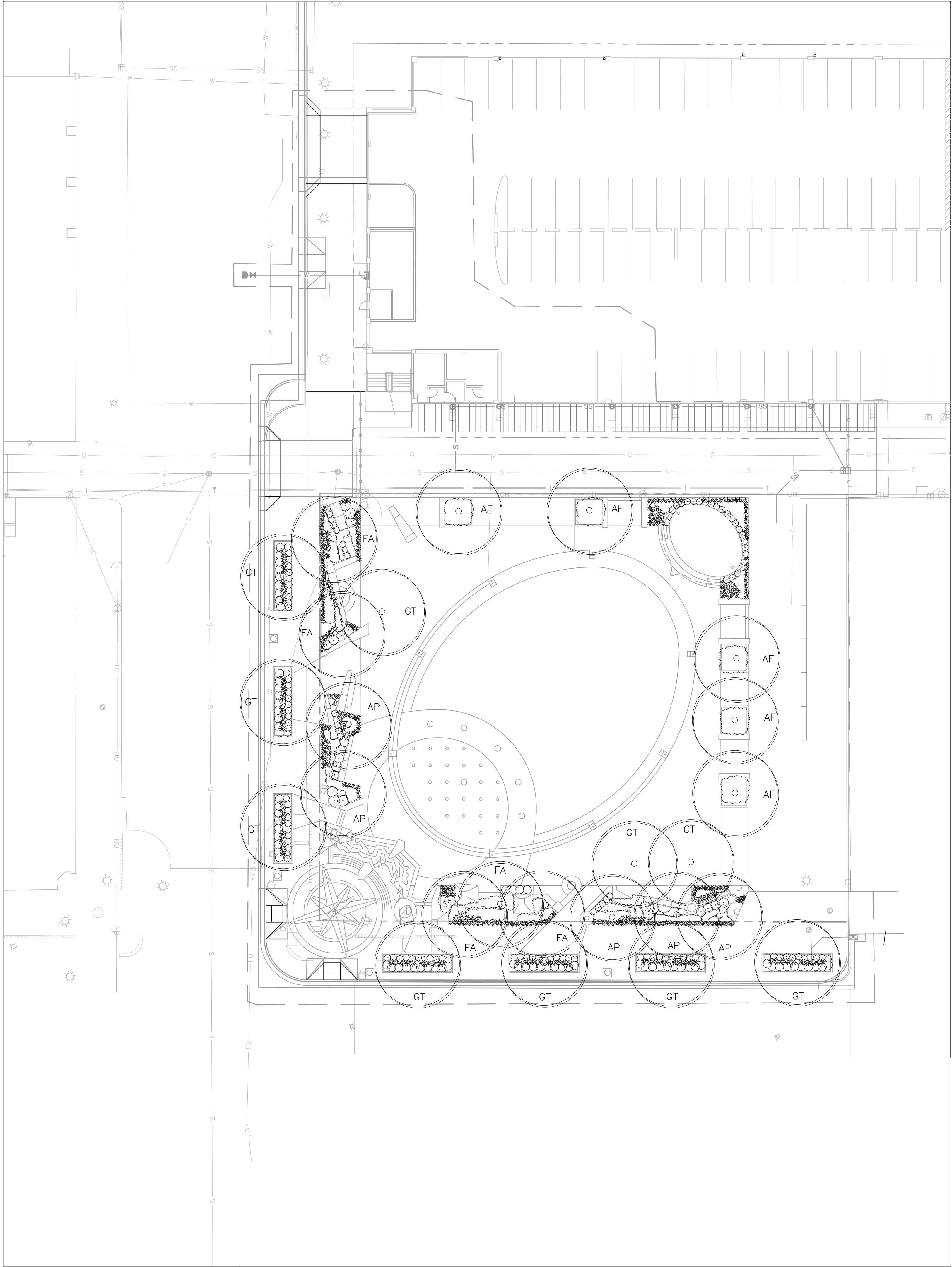
QUANTITY	PLAN SYMBOL & MARK	BOTANICAL NAME COMMON NAME	SIZE	TYPE	DETAIL
5		ACER X FREEMANNII RED SUNSET MAPLE	4" CAL	B & B	1/L3.02
10		GLEDITSIA TRIANCANTHOS 'SKYCOLE' SKYLINE HONEYLOCUST	4" CAL.	B & B	1/L3.02
5		FRAXINUS AMERICANA 'AUTUMN PURPLE' AUTUMN PURPLE WHITE ASH	4" CAL.	B & B	1/L3.02
5		TILIA MONGOLICA 'HARVEST GOLD' HARVEST GOLD LINDEN	4" CAL.	B & B	1/L3.02
?		????? ????????? '????????? ????' ????????? ????' ????????	4" CAL.	B & B	1/L3.02

PLANTING NOTES

1. LANDSCAPE/IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL LANDSCAPE/IRRIGATION MATERIALS WITH GENERAL CONTRACTOR.
2. CONTRACTOR TO EVALUATE EXISTING SITE CONDITIONS AND REMEDY AS REQUIRED TO PROVIDE FOR HEALTHY PLANT GROWTH AND MITIGATE UNSIGHTLY CONDITIONS.
3. CONTRACTOR TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH OTHER TRADES.
4. CONTRACTOR TO SUPPLY AND INSTALL TOPSOIL IN ALL AREAS TO A DEPTH OF 4" FOR TURF AND NATURAL GRASS AREAS AND 12" FOR ALL PLANTING BEDS. SCARIFY SOIL PROFILE TO 12" DEPTH TO LOOSEN SOIL.
5. ALL PLANT MATERIAL SHALL BE INSTALLED AS DETAILED, SEE SHEET L3.02. IF NOT SHOWN, INSTALL ACCORDING TO SOUTH DAKOTA ASSOCIATION OF NURSERYMEN.
6. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES. THE ILLUSTRATED LOCATION SHALL DICTATE COUNT.
7. DURING INSTALLATION OF PLANT MATERIAL AND IRRIGATION, CONTRACTOR SHALL KEEP ALL WORK AREAS AND WALKING AND DRIVEWAY SURFACES CLEAN OF DEBRIS. PROTECT ALL PLANT AND IRRIGATION MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS OR ACTIVITIES BY OTHER CONTRACTORS AND TRADES. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE ANY DAMAGED PLANTINGS, MATERIALS OR IRRIGATION EQUIPMENT IMMEDIATELY.
8. IN THE EVENT OF ANY DISCREPANCIES, NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY.
9. NO PLANT SUBSTITUTIONS WILL BE ALLOWED WITHOUT WRITTEN CONSENT FROM THE LANDSCAPE ARCHITECT.
10. ALL BEDS, BERMS AND PARKING LOT ISLANDS TO BE MULCHED WITH CLEAN, 1.5"-3" WASHED RIVER ROCK OR SHREDDED BARK MULCH (DEPENDING ON LOCATION). SUBMIT SAMPLE OF MULCH MATERIALS TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
11. 1.5"-3" RIVER ROCK MULCH OR SHREDDED HARDWOOD MULCH TO BE PLACED OVER TYPAR LANDSCAPE FABRIC ON ALL PLANT BED AREAS AS INDICATED ON PLAN. (SUBMIT SAMPLES FOR SELECTION BY LANDSCAPE ARCHITECT).
12. WEED BARRIER TO BE "TYPAR 3201" AS MANUFACTURED BY LING INDUSTRIAL FABRICS INC. GEOTEXTILE DIVISION. WEBSITE: WWW.LINGIND.COM. 1(800)543-9966. ALTERNATE PRODUCTS ACCEPTED WITH SUBMITTAL, REVIEW AND APPROVAL OF LANDSCAPE ARCHITECT.
13. LANDSCAPE ARCHITECT TO HAND SELECT PLANT MATERIALS TOGETHER WITH CONTRACTOR. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT 1 WEEK IN ADVANCE PRIOR TO ORDERING PLANTS TO SET UP PLANT SELECTION TOUR.
14. LANDSCAPE ARCHITECT TO FIELD LOCATE PLANT MATERIALS ON-SITE WITH LANDSCAPE CONTRACTOR. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT 1 WEEK IN ADVANCE PRIOR TO PLACEMENT OF PLANT MATERIALS.
15. SUBMIT TURF GRASS SEED MIX TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO SEEDING.
16. LANDSCAPE CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING ELEMENTS AND UTILITIES DURING PLANTING/INSTALLATION.

QUANTITY	PLAN SYMBOL & MARK	BOTANICAL NAME COMMON NAME	SIZE	TYPE	DETAIL
xx		JUNIPERUS COMMUNIS 'MONDAP' ALPINE CARPET JUNIPER	2 GAL.	CNTR.	3/L3.02
xx		PINUS MUGO PUMILO DWARF MUGO PINE	2 GAL.	CNTR.	3/L3.02
xx		RIBES ALPINUM 'GREEN MOUND' DWARF ALPINE CURRANT	2 GAL.	CNTR.	3/L3.02
xx		VIBURNUM OPULUS 'NANUM' DWARF EUROPEAN CRANBERRYBUSH	2 GAL.	CNTR.	3/L3.02
xx		SPIREA JAPONICA 'MAGIC CARPET' MAGIC CARPET SPIREA	2 GAL.	CNTR.	3/L3.02
xx		RHUS AROMATICA 'GROW LOW' GROW LOW SUMAC	2 GAL.	CNTR.	3/L3.02
xx		PARENTHOISSUS QUINGEFOLIA 'ENGLEMANNI' ENGLEMAN IVY	1 GAL.	CNTR.	3/L3.02
xx		SISYRINCHIUM MONTANUM BLUE EYED GRASS	2 GAL.	CNTR.	4/L3.02
xx		CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' FEATHER REED GRASS	2 GAL.	CNTR.	4/L3.02
xx		CALAMAGROSTIS X ACUTIFLORA 'OVERDAM' OVERDAM FEATHER REED GRASS	2 GAL.	CNTR.	4/L3.02
xx		DESCHAMPSIA CAESPITOSA TUFTED HAIR GRASS	2 GAL.	CNTR.	4/L3.02
SF		PERENNIALS AND BEDDING PLANTS- (SEE PLAN FOR TYPES)	18" OC QT POTS	CNTR.	4/L3.02
xx		ACHILLEA MILLEFOLIUM 'SUMMER PASTEL' SUMMER PASTELS YARROW	1 GAL.	CNTR.	4/L3.02
xx		HEUCHERA MICRANTHA 'PALACE PURPLE' PALACE PURPLE CORALBELLS	1 GAL.	CNTR.	4/L3.02
xx		SEDUM X AUTUMN JOY AUTUMN JOY SEDUM	1 GAL.	CNTR.	4/L3.02
xx		CENTAUREA MONTANA MOUNTAIN BLUET	1 GAL.	CNTR.	4/L3.02
xx		ECHINACEA 'AFTER MIDNIGHT' AFTER MIDNIGHT CONEFLOWER	1 GAL.	CNTR.	4/L3.02
xx		ATHYRIUM FILIX-FEMINA LADY FERN	1 GAL.	CNTR.	4/L3.02
xx		HOSTA SIEBOLDIANA 'ELEGANS' ELEGANS PLANTAIN LILY	1 GAL.	CNTR.	4/L3.02
xx		HELIOPSIS HELIANTHOIDES 'SUMMER FUN' FALSE SUNFLOWER	1 GAL.	CNTR.	4/L3.02
xx		HEMEROCALLIS 'STELLA D ORO' DAYLILY	1 GAL.	CNTR.	4/L3.02
xx		LIATRIS SPICATA 'KOBOLD' DWARF GAYFEATHER	1 GAL.	CNTR.	4/L3.02
xx		NEPETA RACEMOSA 'WALKER'S LOW' WALKER'S LOW CATMINT	1 GAL.	CNTR.	4/L3.02
xx		PEROVSKIA ATRIFOLIOLATA RUSSIAN SAGE	1 GAL.	CNTR.	4/L3.02
NOTE: SHREDDED HARDWOOD MULCH IN TREE RINGS & PERENNIAL BEDS AS SHOWN IN DETAILS					
QUANTITY	PLAN SYMBOL & MARK	BOTANICAL NAME COMMON NAME	SIZE	TYPE	
xxx,xxx,xx SF		TURF: SOD AS SPECIFIED	1 GAL.	CNTR.	

BEFORE ANY DIGGING-CONTRACTOR
TO LOCATE ALL EXISTING UTILITIES.



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ASSOCIATES, LLC

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additional offices in:
Indianapolis, IN | Muncie, IN

PREPARED FOR:

City of Rapid City

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300 Sixth Street, Rapid City, SD 57701
TE [605] 394-4165 FX [605] 355-3083

Destination Rapid City

606 Main Street, Rapid City, SD 57701
TE [605] 716-7979 FX [605] 341-6415

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Skyline Engineering, LLC

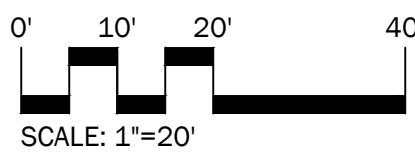
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Albertson Engineering, Inc.

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PROJECT:

Main Street Square
Site Development
Rapid City, South Dakota



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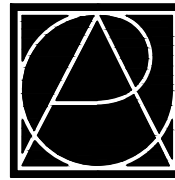
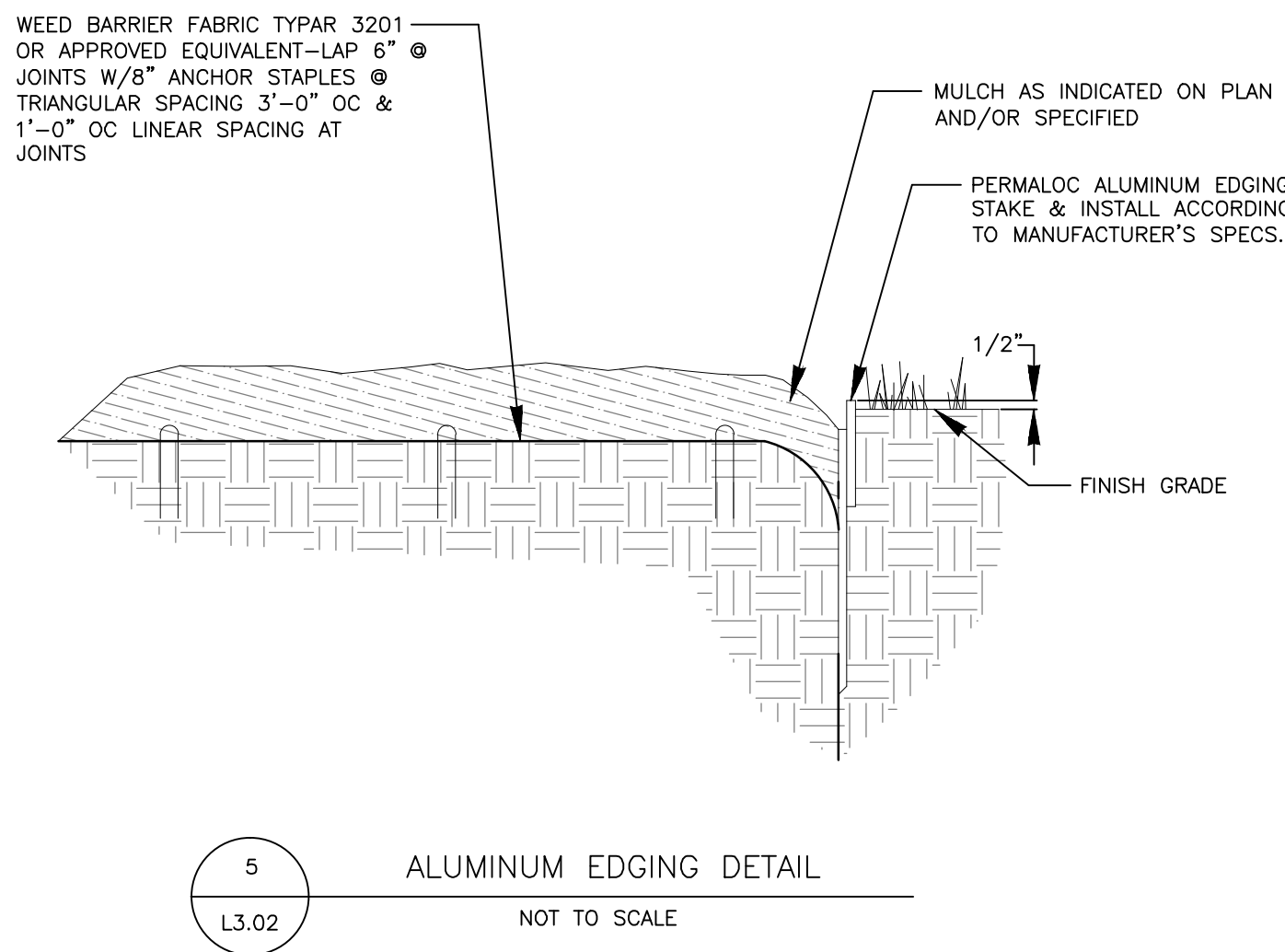
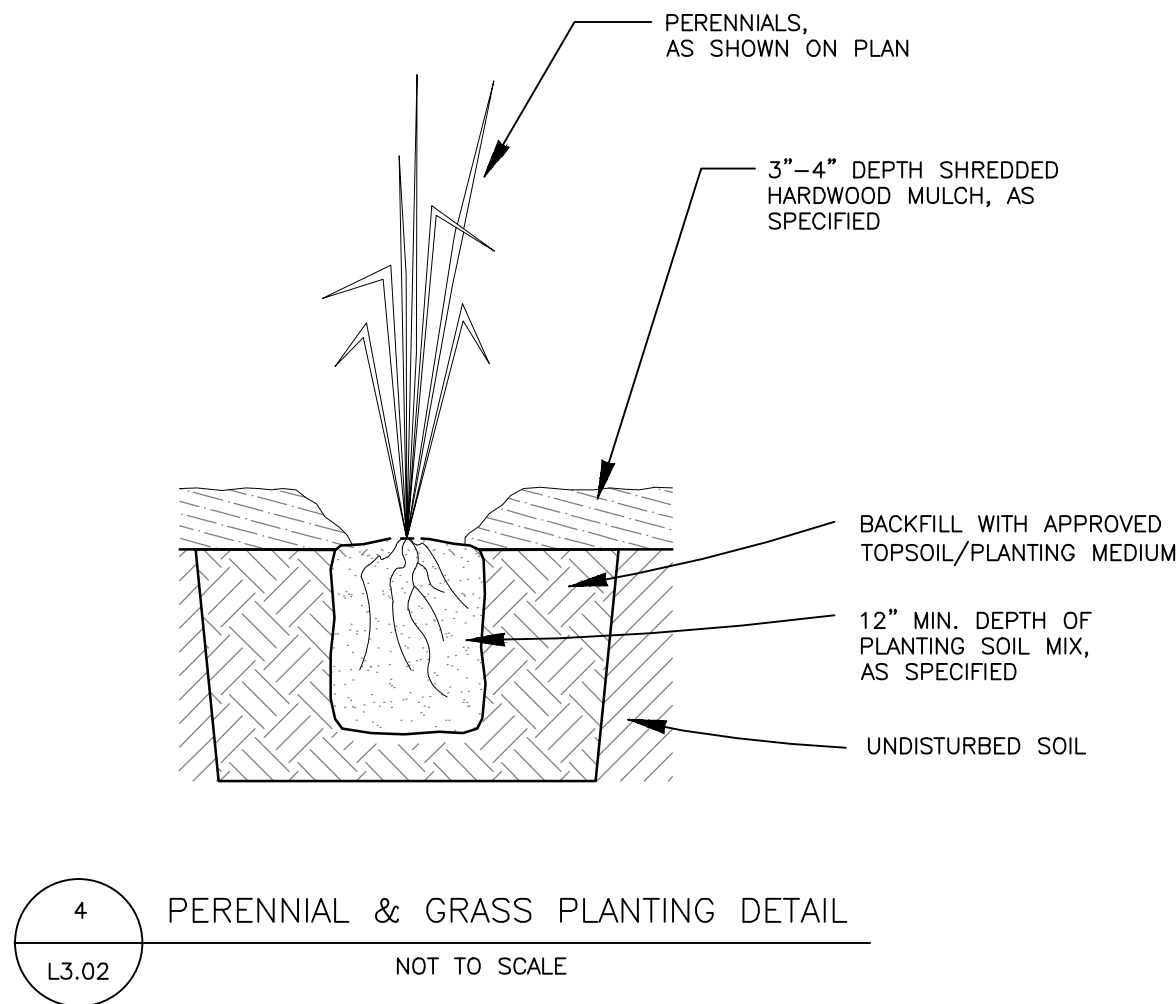
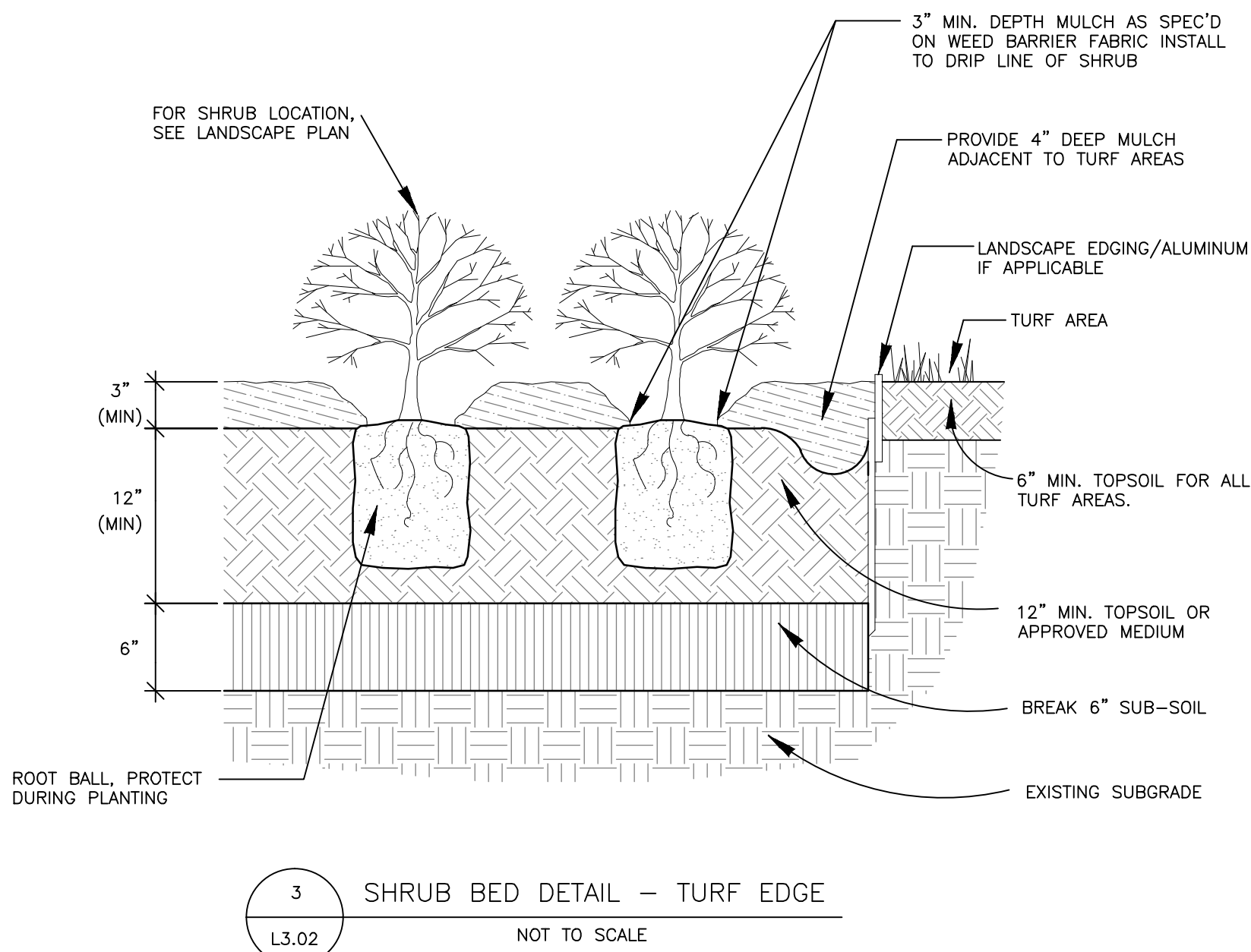
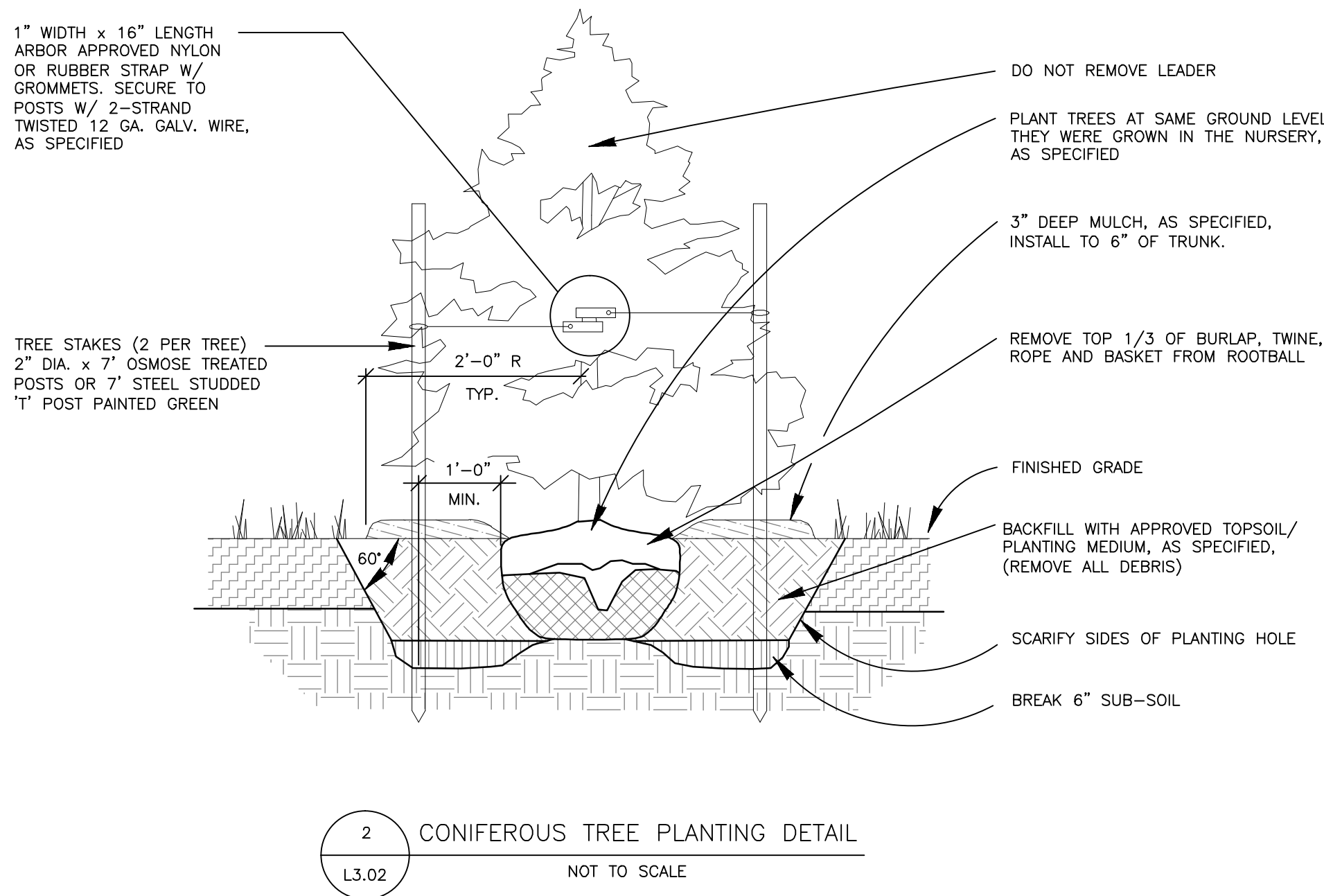
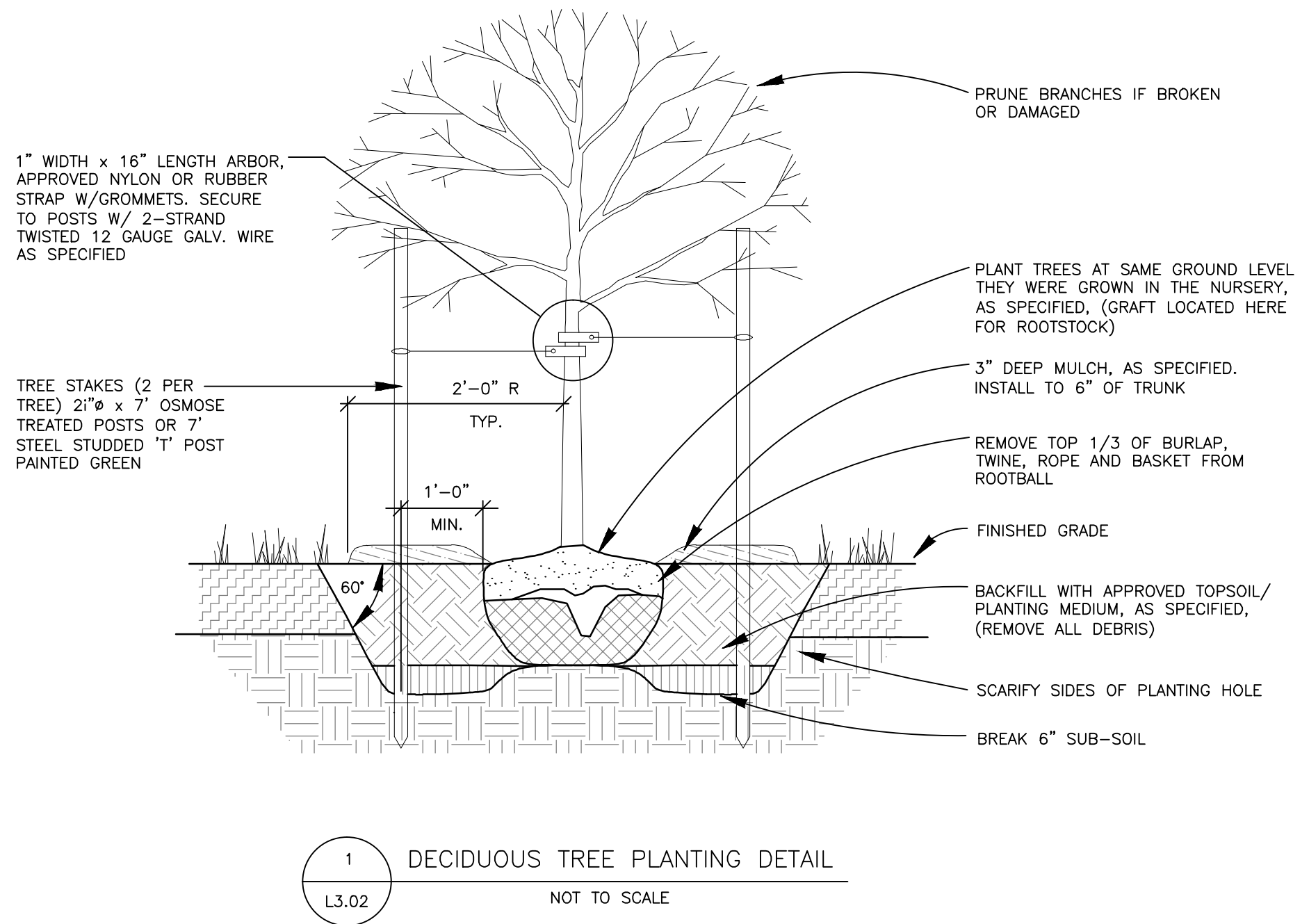
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City #:
Project No.: 091131
Date: June 23, 2010
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File: 1592-L02-PLANT01.dwg

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SD 6.01



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PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**

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C:\Civil 3D Projects\09-1992 Main Street Square\Sheet Files\1592-L02-IRRIGATE01.dwg June 29, 2010 - 1:55pm CEI:erberger

IRRIGATION LEGEND: ALL EQUIPMENT TO BE AS LISTED OR AN APPROVED EQUAL: SEE SPECIFICATIONS

SYMBOL	DESCRIPTION	SIZE	MANUF.	MODEL NUMBER	DETAIL REF.
	ET SYSTEM	11½"x20¾"	HUNTER OR EQUAL	ET SYSTEM & ET WIND	8/L4.02, 7/L4.02
	CONTROL VALVE	SEE CALL OUT	HUNTER OR EQUAL	ICV-101G ELECTRIC CONTROL VALVES	1/L4.02
	DRIP CONTROL VALVE	SEE CALL OUT	HUNTER OR EQUAL	ICZ-101	2/L4.02
	ISOLATION GATE VALVE	LINE SIZE	PVC BALL VALVE	PROVIDE PRODUCT DATA	3/L4.02
	QUICK COUPLER VALVE	1"	HUNTER OR EQUAL	HQ-44LRC	4/L4.02
	CONTROLLER	24 STATION	HUNTER OR EQUAL	ICC-1200-POTS WITH SOLAR SYNC ADDITION	
	BLOWOUT ASSEMBLY	1" FEMALE THREADED	HUNTER OR EQUAL	5-NP (IF NEEDED)	
	RAIN SENSOR	SEE CALL OUT	HUNTER OR EQUAL	RAIN CLK OR EQUAL	6/L4.02
	DOUBLE CHECK VALVE ASSEMBLY	1"	WATTS OR EQUAL	007-M1-QT	
	CONTINUOUS ACTING AIR & VACUUM RELIEF VALVE	LINE SIZE	HUNTER OR EQUAL	CR-101	
	FILTER ASSEMBLY	1"	HUNTER FILTER OR EQUAL	T100100F, 1" "T" BODY AND 100 MESH FILTER OR EQUAL	
	FLOW SENSOR	1"	HUNTER OR EQUAL	HFS W/FCT150	5/L4.02
	ELECTRICAL GROUNDING				
	POINT OF CONNECTION, 35 GPM @ 65 PSI (COORDINATE WITH EXISTING SYSTEMS.)				
	LATERAL LINE	1"		SCH 40 PVC	10/L4.02
	NEW MAIN LINE	1.5"		SCH 40 PVC	10/L4.02
	SLEEVE LINES	6"		SCH 80 PVC (SCH40 PVC UNDER WALKS & TRAILS)	10/L4.02
	COMMUNICATION WIRE IN MAIN LINE TRENCH	18 AWG	HUNTER/ PAGE ELECTRIC	P7183D	10/L4.02
	DRIP TUBING	3/4"	HUNTER OR NETAFIM	POLYETHYLENE TUBING	

- POINT SOURCE DRIP: TREES=(3)2 GPH EMITTERS
SHRUBS=(2)1 GPH EMITTERS, PERENIALS=(2)1/2 GPH EMITTERS.

ZONE NUMBER
(X INDICATES DRIP ZONE)

GPM PER ZONE

VALVE SIZE

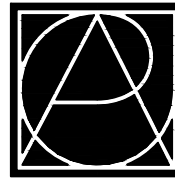
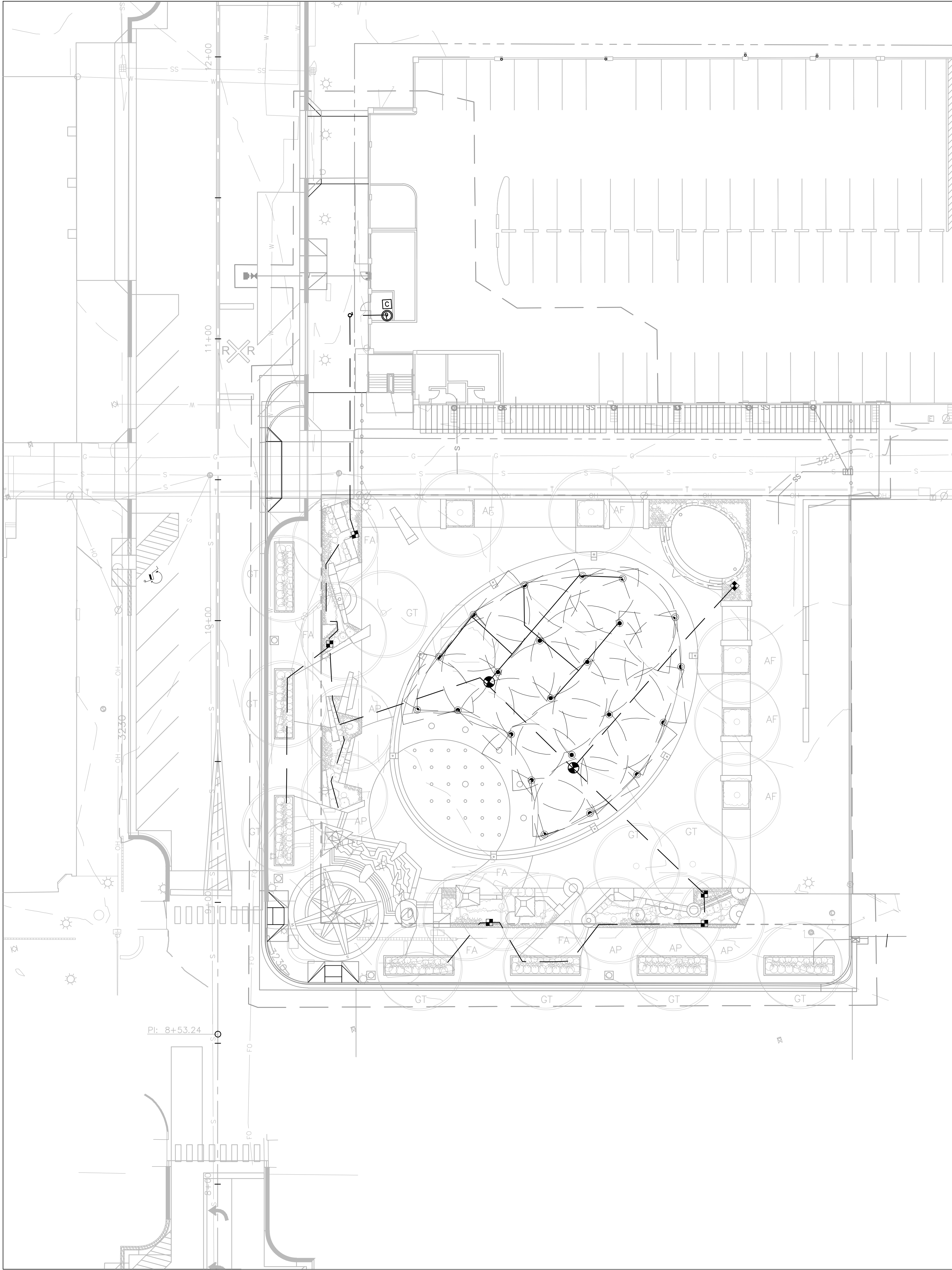
SPRINKLER HEAD LEGEND
HUNTER IRRIGATION PARTS OR APPROVED EQUAL
ROTARY HEADS w/ MP ROTATOR 8-30 NOZZLES (SEE DETAIL 5/L4.05)

	3.64 GPM	MP3000/R22-30F		2.73 GPM	MP3000/R22-30F
	2.12 GPM	MP3000/R22-30F		1.82 GPM	MP3000/R22-30F
	.86 GPM	MP3000/R22-30F			

IRRIGATION NOTES: ALL IRRIGATION HEADS TO BE INSTALLED 6" AWAY FROM BUILDING WALLS.

- CONTRACTOR TO VERIFY EXISTING CONDITIONS. ALL EXISTING UTILITIES ARE TO BE LOCATED BEFORE ANY TRENCHING OF ANY KIND BEGINS.
- PROTECT ALL EXISTING IMPROVEMENTS TO REMAIN AND REPAIR BACK TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE IF DAMAGE OCCURS RESULTANT FROM CONTRACTOR'S OPERATIONS OR NEGLIGENCE.
- RE-GRADE AND RECLAIM ALL EXISTING LAWN AREAS DISTURBED BY CONTRACTOR'S OPERATIONS AS PER SPECIFICATIONS. A DISTURBED AREA SHALL BE WHERE CONSTRUCTION ACTIVITIES INCLUDING TRENCHING, DEMOLITION, EARTHWORK, MATERIAL STORAGE, STAGING, PARKING OR ANY OTHER FORM OF EXCAVATION, COMPACTION OR TRAFFIC RESULTS IN THE REMOVAL OR DISPLACEMENT OF EXISTING GROUND COVER OR GRADE. COORDINATE WITH GENERAL CONTRACTOR.
- COORDINATE WORK THIS SHEET WITH ALL OTHER TRADES.
- SYSTEM DESIGN IS BASED UPON AVAILABILITY OF 65 MIN. PSI AT THE POINTS OF CONNECTION, 45 PSI AT ROTORS AND 30 PSI AT SPRAY HEADS. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. ZONES SHALL NOT EXCEED 35 GPM.
- INSTALL IRRIGATION SYSTEM AS DETAILED AND PER SPECIFICATIONS.
- IRRIGATION PIPING LAYOUT IS SCHEMATIC. ACTUAL LOCATION OF PIPING AND OTHER COMPONENTS MAY VARY DUE TO EXISTING SITE CONDITIONS.
- COORDINATE HEAD LOCATIONS WITH EXISTING PLANTS TO ENSURE PROPER COVERAGE.
- PROVIDE POWER TO ALL IRRIGATION CONTROLLERS. COORDINATE POWER SOURCE WITH CITY OFFICIALS.
- INSTALL AN AIR RELIEF VALVE AT THE PIPE HIGH POINT.
- INSTALL CONTROL WIRES FROM ELECTRIC VALVES TO CONTROLLER. (PROVIDE 2 EXTRA WIRES TO LONGEST RUN.)
- SLEEVES SHALL BE (2) SIZES LARGER THAN PIPE OR COMBINATION OF PIPES THEREIN ENCLOSED, WITH MINIMUM SIZE TO BE 4" SUPPLY (1) EXTRA SLEEVE WITH EACH MAIN LINE SLEEVE FOR CONTROL WIRES. BORE UNDER EXISTING PAVING WHERE REQUIRED. BORE SEPARATELY FOR CONTROL WIRES.
- PROVIDE TEMPORARY WATERING AS REQUIRED. COORDINATE PROTECTION OF EXISTING TREES AND PLANTS DURING CONSTRUCTION ACTIVITIES.
- CONTRACTOR TO ADJUST IRRIGATION HEADS TO PROVIDE COMPLETE COVERAGE AND TO MINIMIZE OVER SPRAY ONTO BUILDINGS.
- SEE DETAIL SHEET L401 INSTALLATION OF IRRIGATION COMPONENTS.
- PROVIDE POWER TO ALL IRRIGATION CONTROLLERS. COORDINATE POWER SOURCE WITH CITY OFFICIALS.
- MAKE ALL IRRIGATION WIRE CONNECTIONS WITH DBY-6 OR DBR-6 DIRECT BURIAL CONNECTORS PER UL486D-DIRECT BURIAL.
- CONTRACTOR TO SUBMIT IRRIGATION AS-BUILTS FOR REVIEW BY THE LANDSCAPE ARCHITECT.

BEFORE ANY DIGGING-CONTRACTOR
TO LOCATE ALL EXISTING UTILITIES.



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PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**



0' 10' 20' 40'
SCALE: 1"=20'

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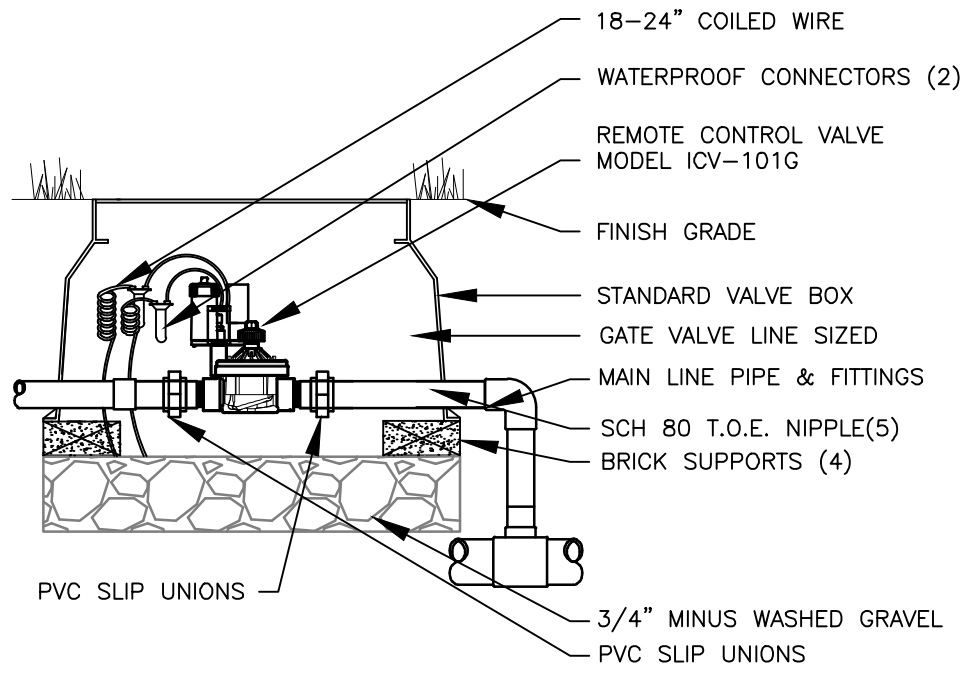
Irrigation Plan

CERTIFICATION:

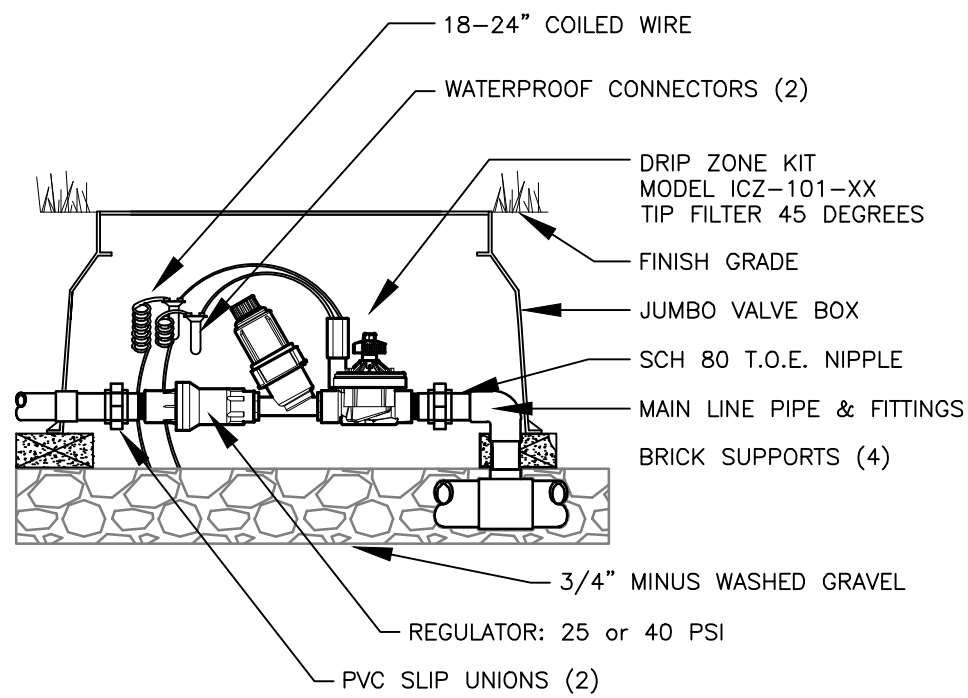
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City #:
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Date: June 23, 2010
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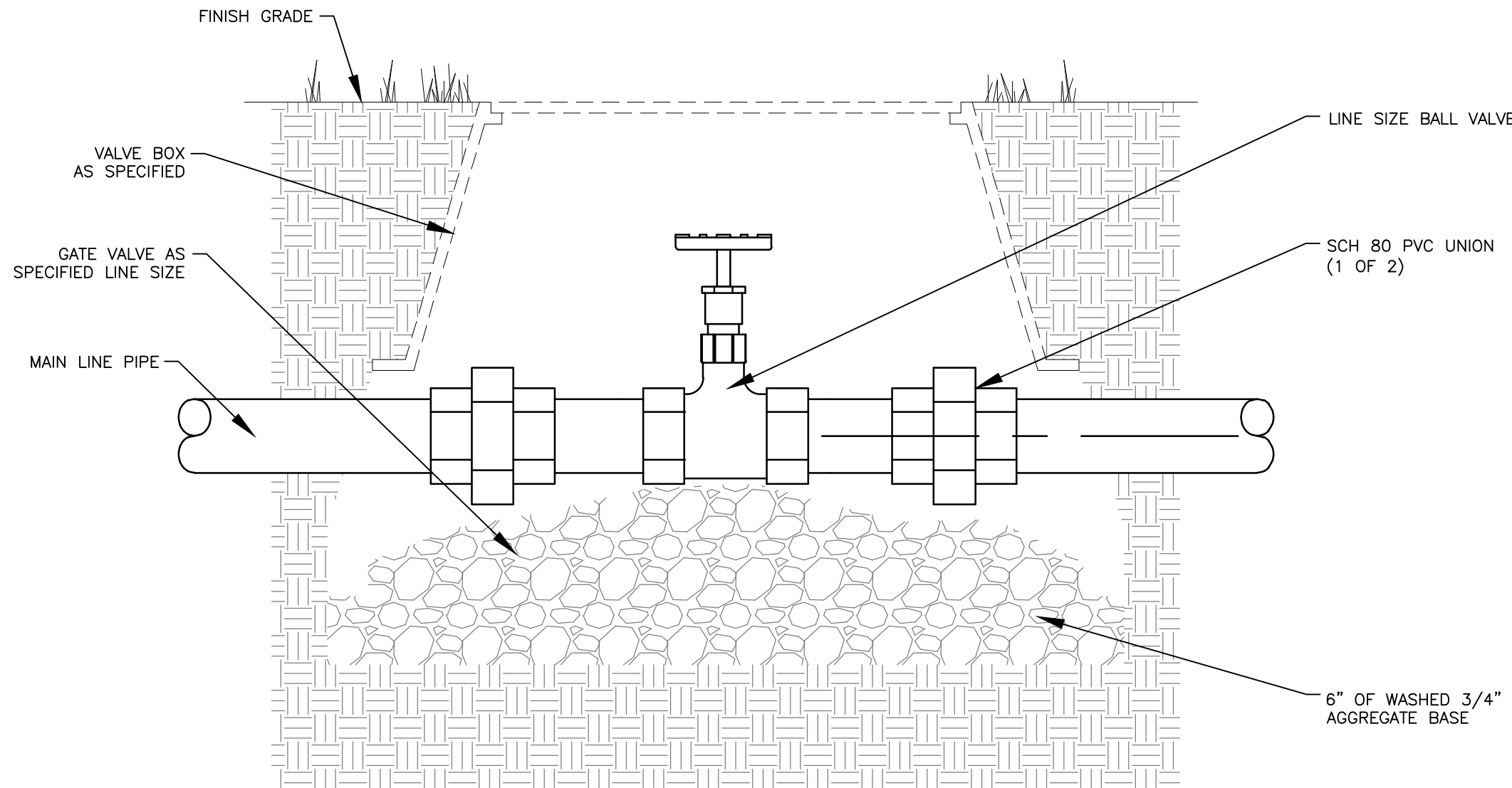
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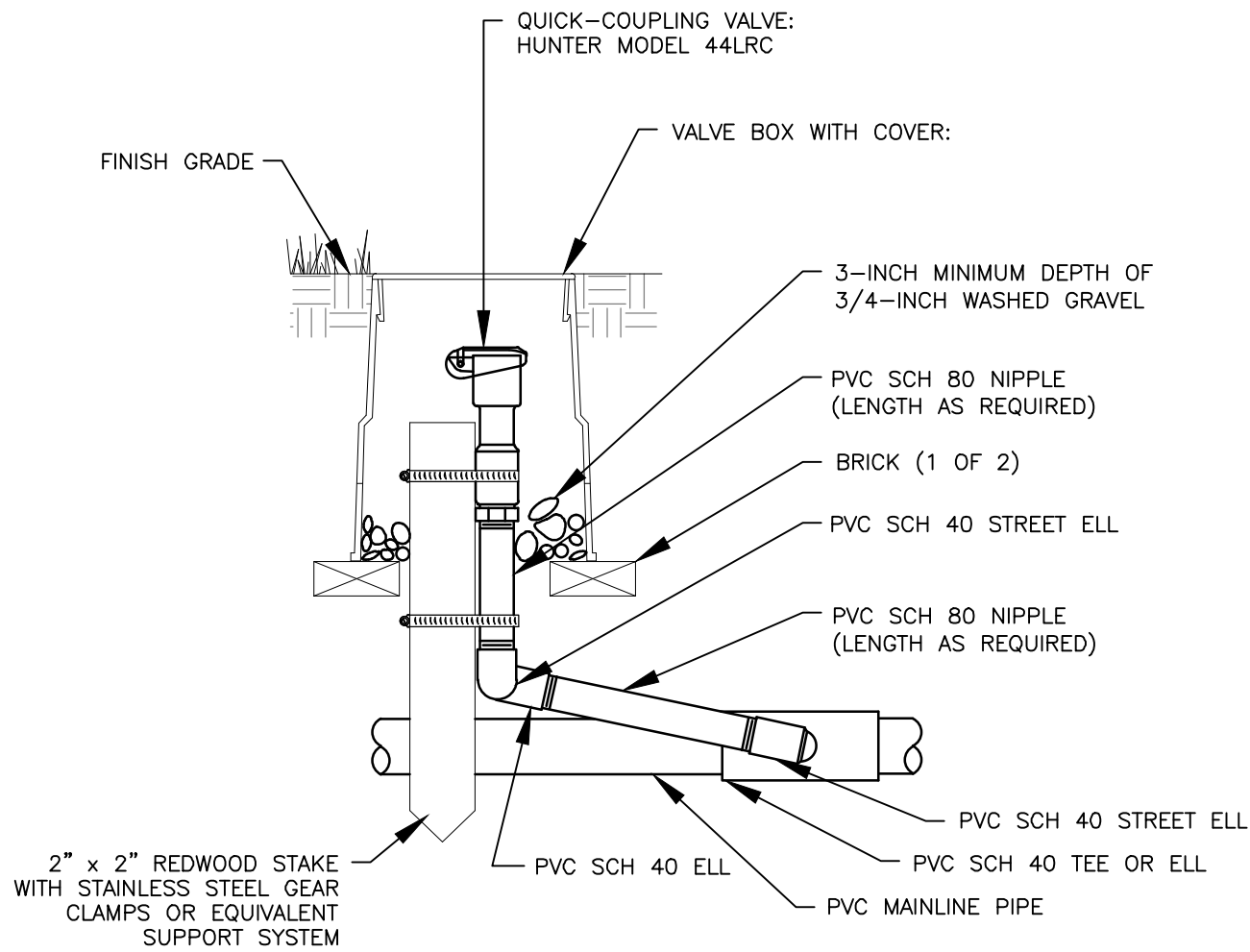
1 HUNTER ICV SOLENOID VALVE
L4.02 NOT TO SCALE



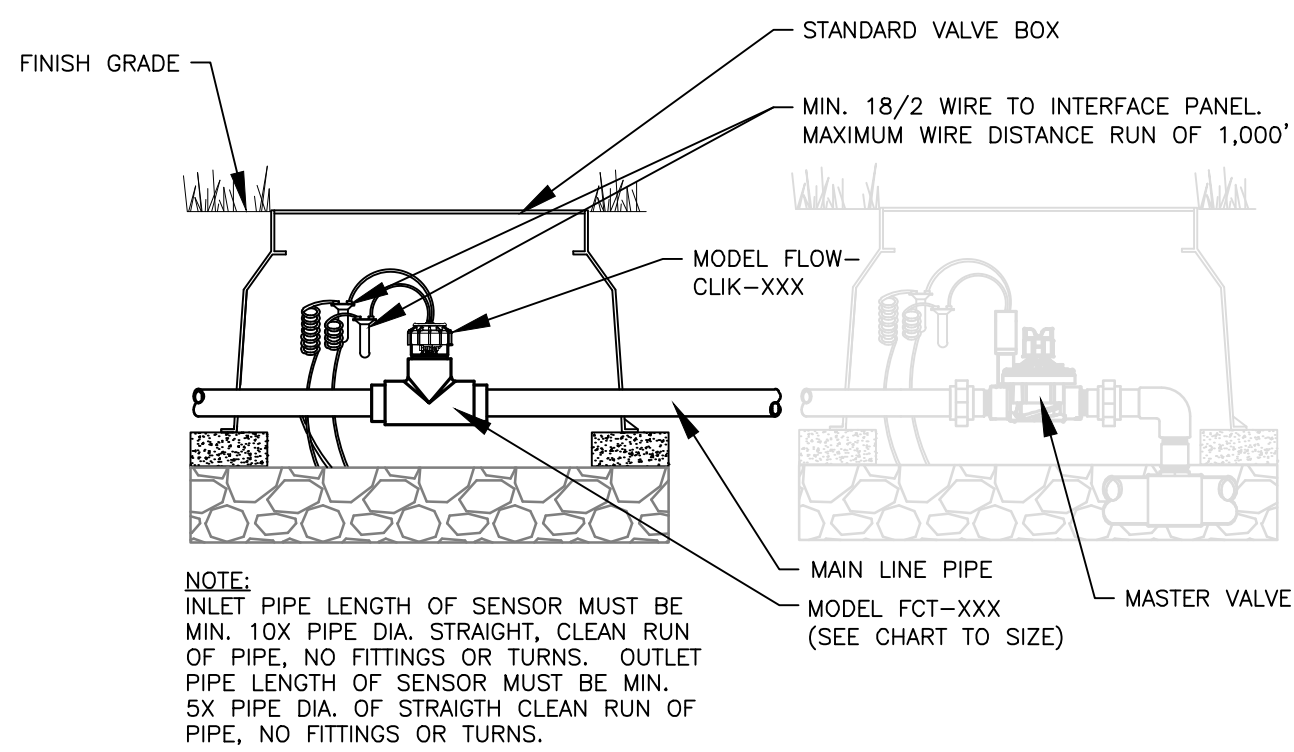
2 HUNTER ICZ DRIP CONTROL VALVE
L4.02 NOT TO SCALE



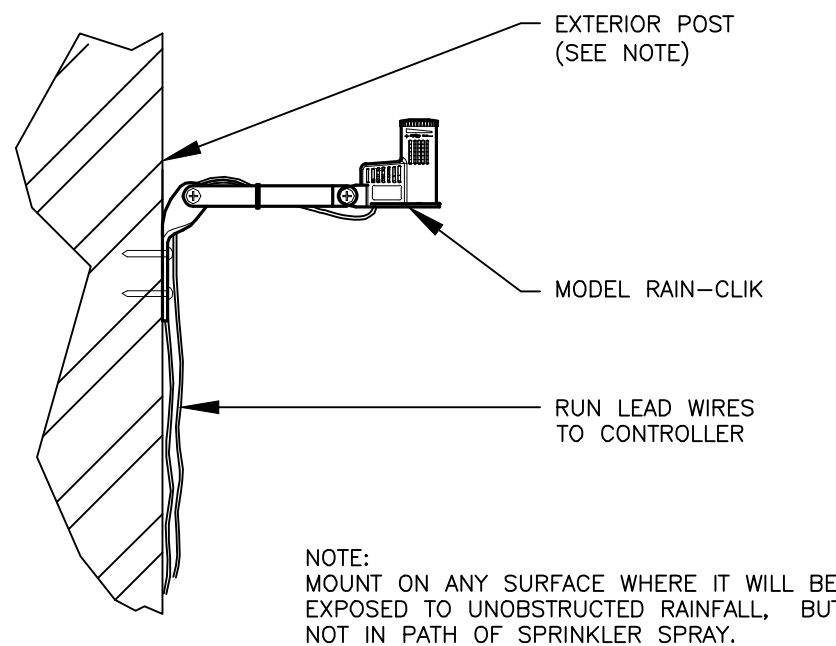
3 ISOLATION VALVE
L4.02 NOT TO SCALE



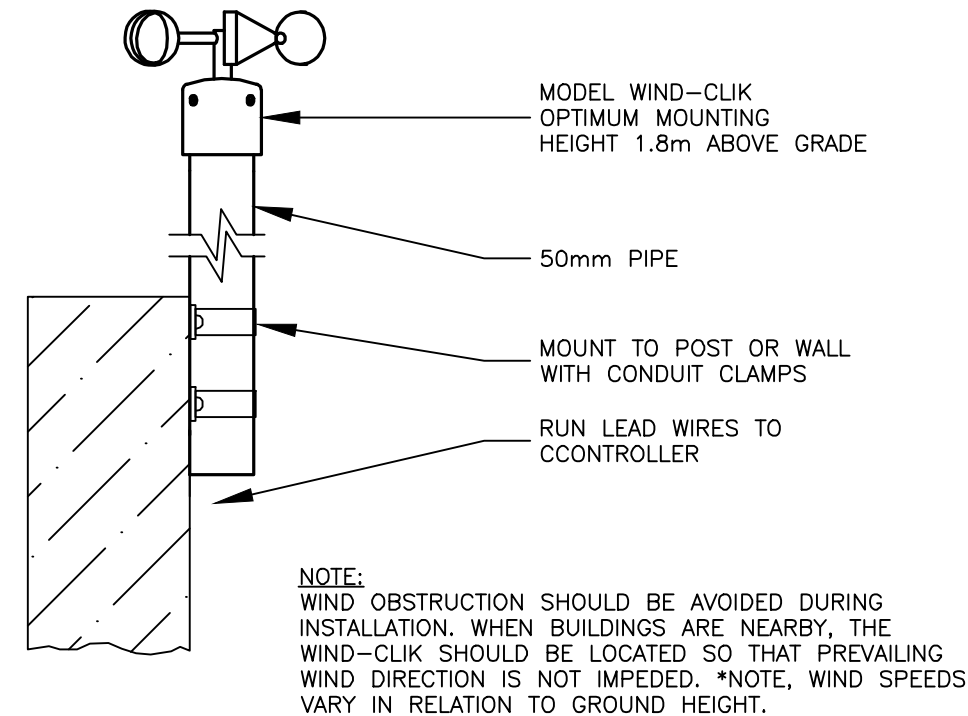
4 QUICK COUPLER
MODEL HUNTER HQ-44LRC
L4.02 NOT TO SCALE



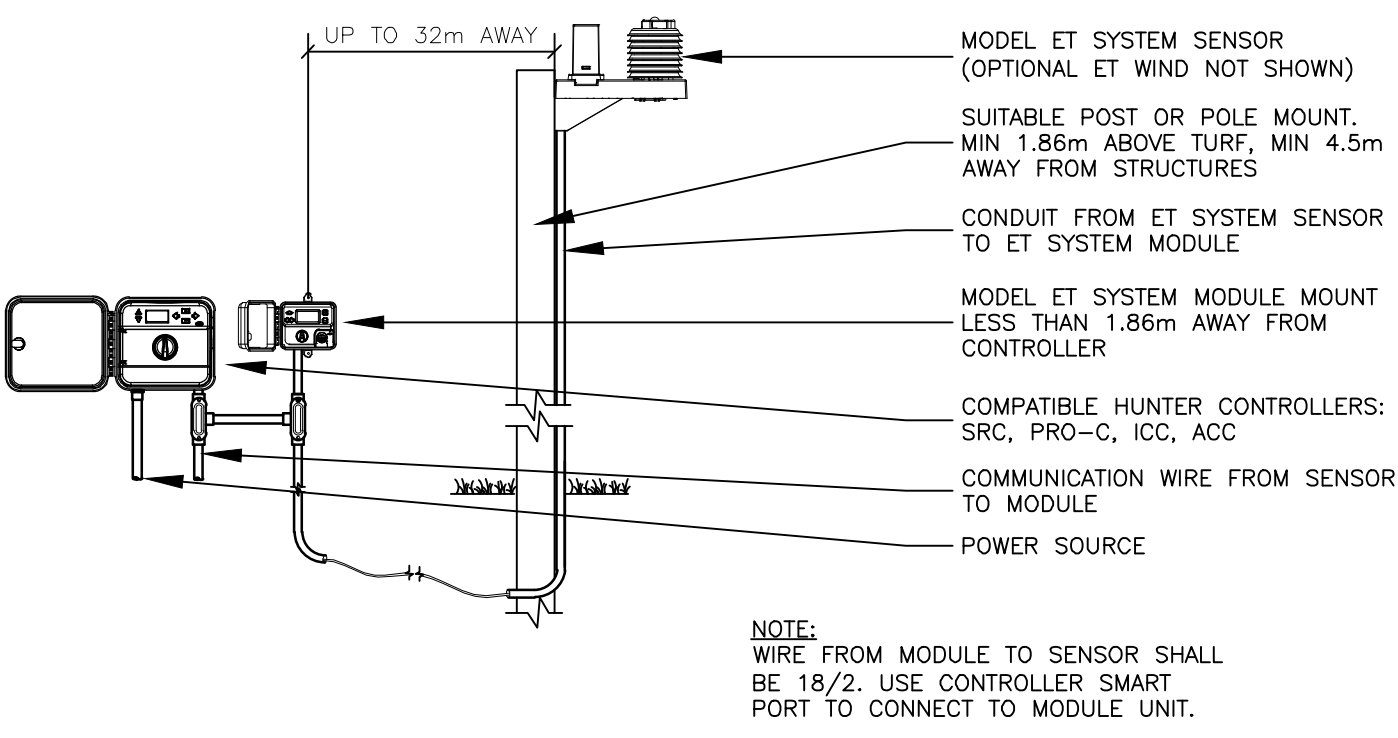
5 FLOW-CLICK
L4.02 NOT TO SCALE



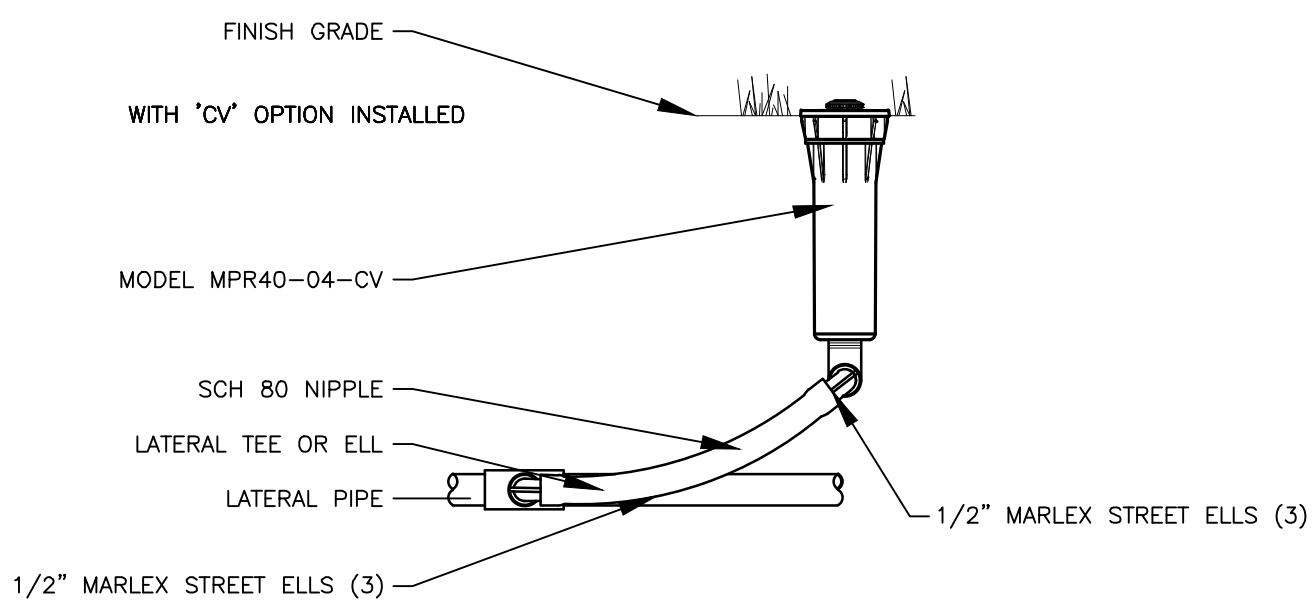
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L4.02 NOT TO SCALE



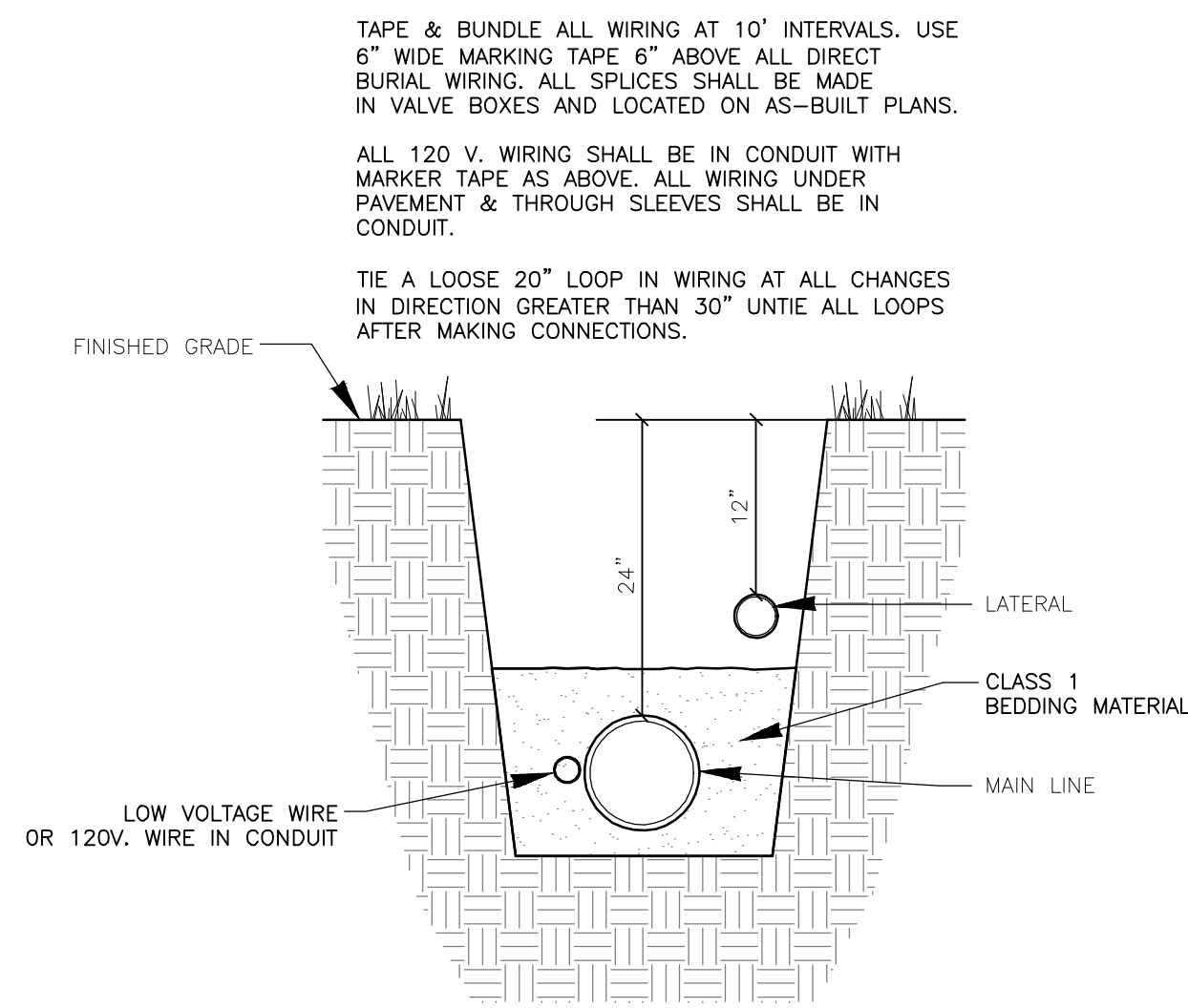
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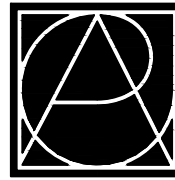
8 ET SYSTEM
L4.02 NOT TO SCALE



9 MP ROTATOR SPRINKLER
L4.02 NOT TO SCALE



10 TRENCH DETAILS
L4.02 NOT TO SCALE



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PROJECT:

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Drawn by:	EAH
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SD 6.04

Project Name: MAIN STREET SQUARE
A/E Project No.: 09.1592.L01
Prepared By:
Date:

- Occupancy Group: (Sections 303) Groups S-2. Existing Parking Garage: S-2
- Type of Construction: (Section 602.2, and Table 503) - Type II-B
- Fire Resistance of Exterior Walls: (Section 704.5, Table 602)

North Wall - ____ Hours
East Wall - ____ Hours
South Wall - ____ Hours
West Wall - ____ Hours

- Allowable Floor Area: (Table 406.3.5 - Open Parking Garages)

Allowable area increases: (per floor)

Basic Allowable Area - Type III-B: Group S-2 Occupancy = 50,000 s.f./floor

Sprinkler Increase: N/A

Frontage Increase: I_f = N/A

Total Allowable Area: 50,000 s.f.

Actual Floor Area: 48,325 s.f.

- Allowable Stores/Height: (Table 406.3.5)

Basic Allowable Height - Type II-B: Group S-1 = 8 Tiers

Actual Stores/Height - Type II-B: Groups S-1 Occupancies = 3 Tiers

- Mixed Occupancies:

- Occupancy Separations - Single Use - as per Section 406.3.5.1 exception.

- Type of Construction: Fire-Resistive Requirements (Section 602.1, Table 601)

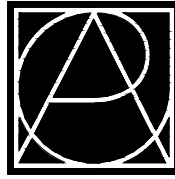
A. Exterior Walls - Bearing = 0 Hours
B. Interior Walls - Bearing = 0 Hours
C. Exterior Walls - Non-Bearing = 0 Hours
D. Interior Walls - Non-Bearing = 0 Hours
E. Structural Frame = 0 Hours
F. Shaft Enclosures = 0 Hours (Section 707)
G. Floors/Floor-Ceilings = 0 Hours
H. Roofs/Roof-Ceiling = 0 Hours

- Fire-Resistant Materials and Construction: (Chapter 7) - ____.

- Fire Protection Requirements - (Section 903) - N/A

- Exiting: (Chapter 10)

A. Maximum Floor Area Allowances: (Table 1004.1.1)
B. Exits Required/Width: (Section 1005, Table 1005.1)
C. Exit Separation: (Section 1015.2.1)



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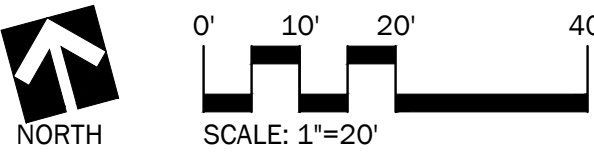
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Floor Plan

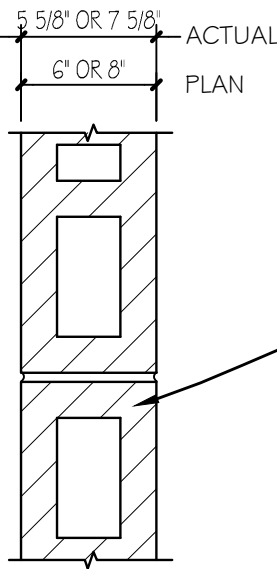
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Project No.: 091131
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Checked by: DDR
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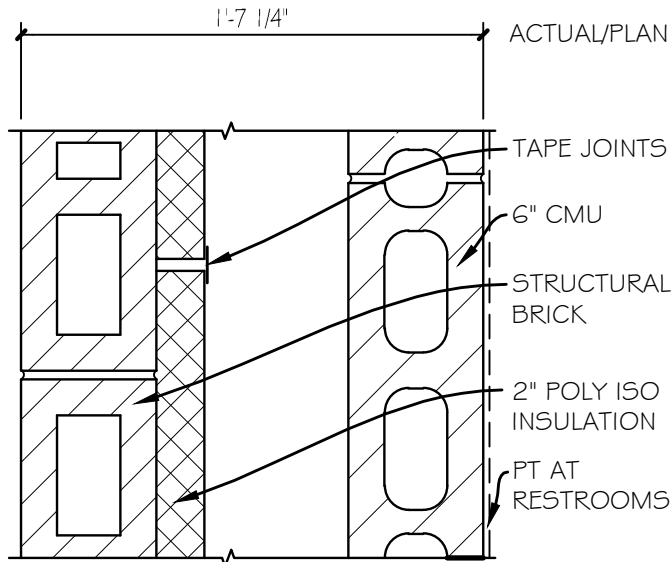
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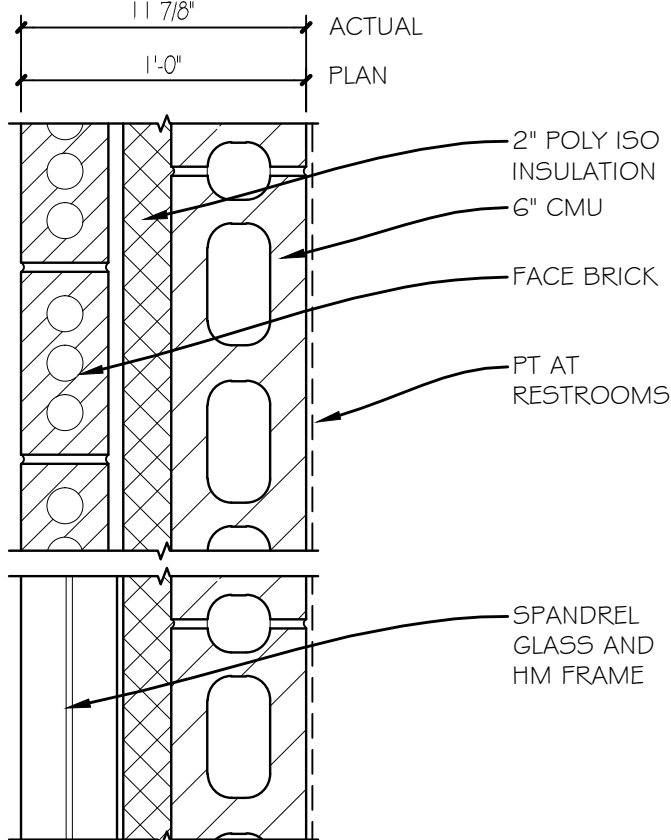


STRUCTURAL BRICK

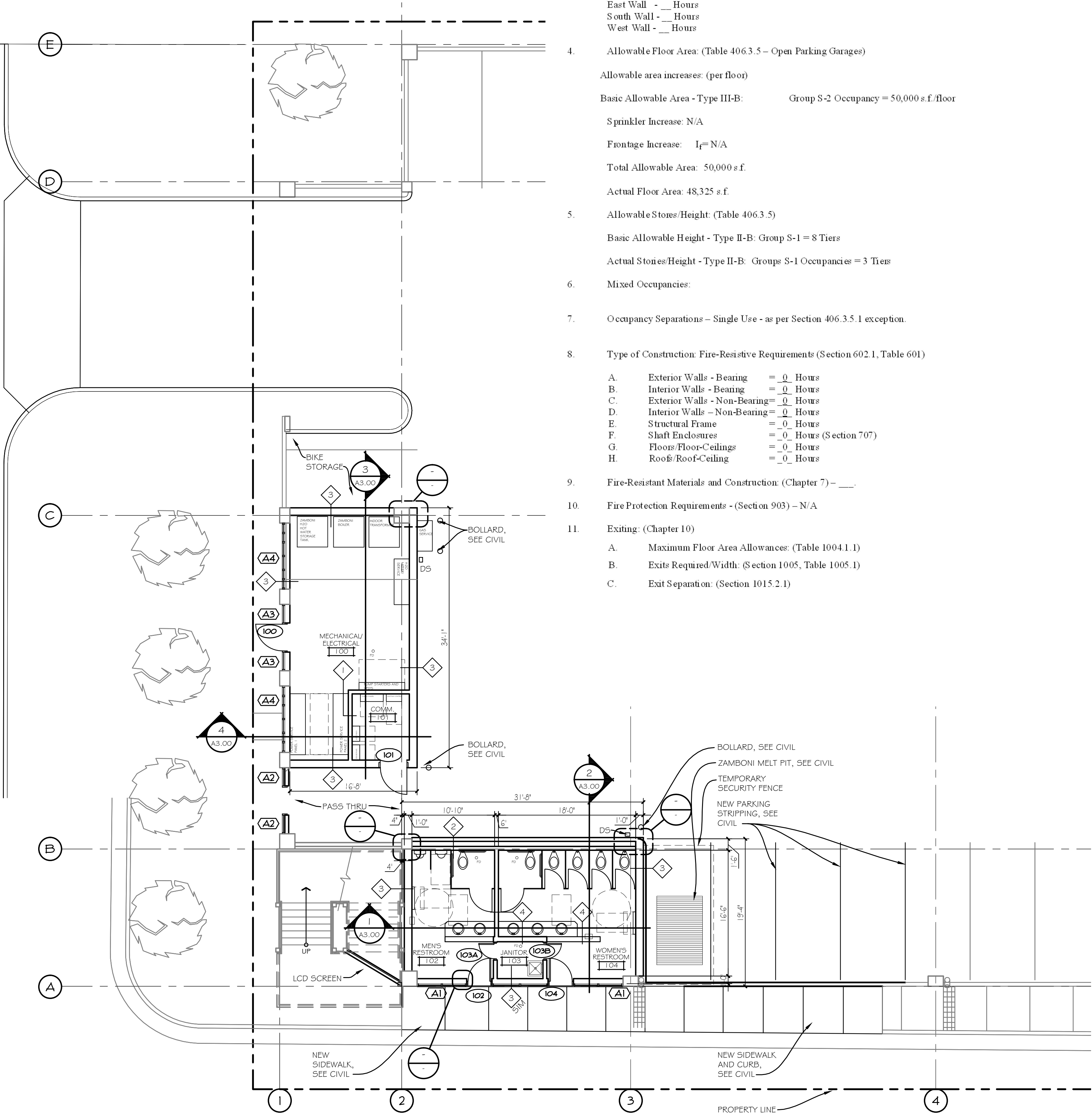
PLAN LEGEND



PLAN LEGEND



PLAN LEGEND



FLOOR PLAN

1/8" = 1' - 0"



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TE (605) 394-4165 FX (605) 355-3083

Destination Rapid City
606 Main Street, Rapid City, SD 57701
TE (605) 716-7979 FX (605) 341-6415

CONSULTANTS:


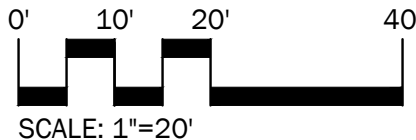
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PROJECT:

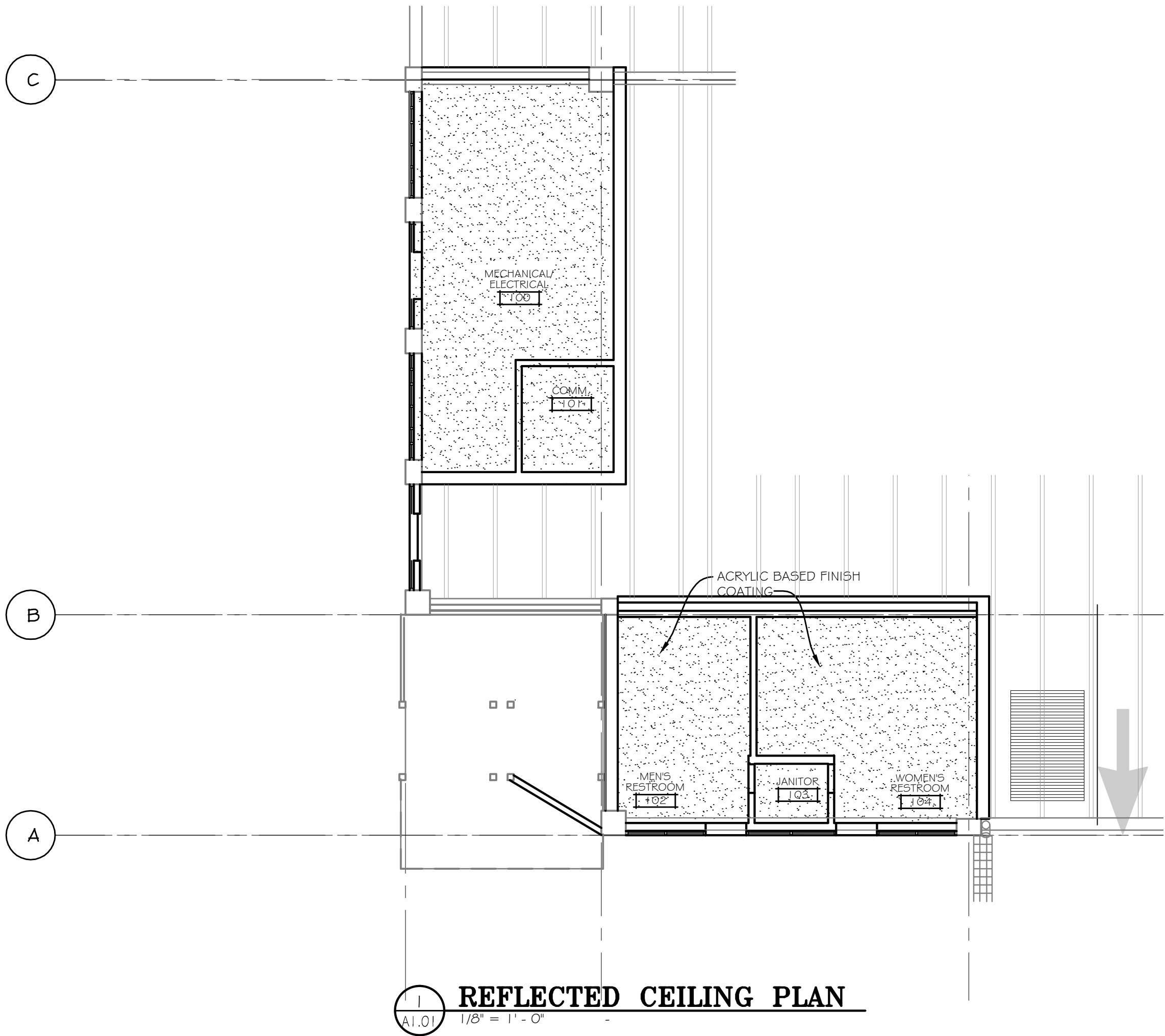
**Main Street Square
Site Development
Rapid City, South Dakota**

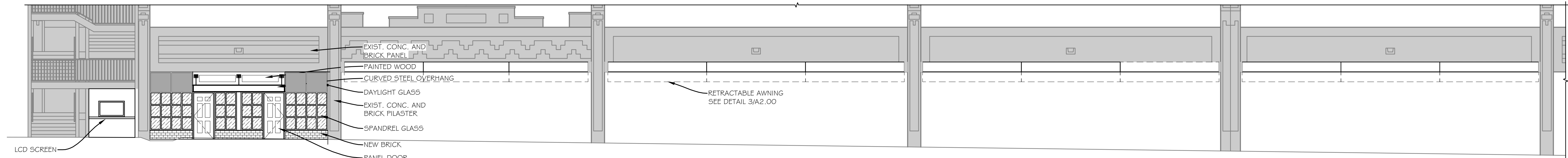
 NORTH			
 SCALE: 1"=20'			
REVISIONS:			
NO.	BY	DESCRIPTION	DATE
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DRAWING NAME:
Reflected Ceiling Plan

CERTIFICATION:	City #: Project No.: 091131 Date: June 23, 2010 Drawn by: PMA Checked by: DDR File: 1592_A1.01.dwg
50% CDs OWNER REVIEW SET	DRAWING #: A1.01





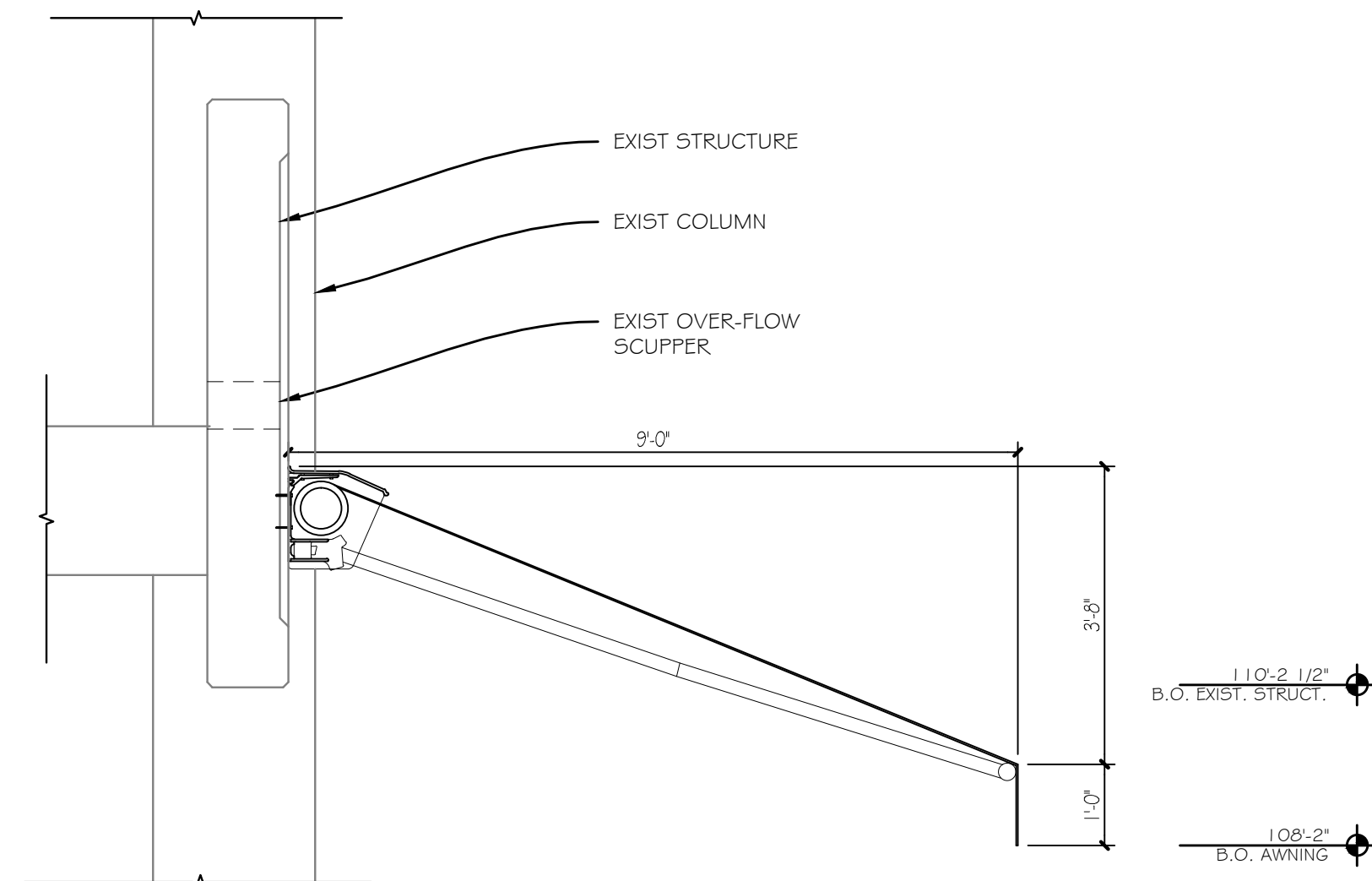
1
A2.00
1/8" = 1'-0"

PROPOSED RESTROOM EXTERIOR ELEVATION



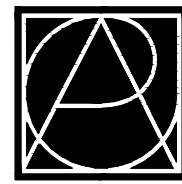
2
A2.00
1/8" = 1'-0"

PROPOSED MECHANICAL ROOM EXTERIOR ELEVATION



3
A2.00
1/2" = 1'-0"

AWNING DETAIL



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PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**



0' 10' 20' 40'
SCALE: 1"=20'

REVISIONS:

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DRAWING NAME:

**Exterior
Elevations**

CERTIFICATION:

50% CDs
OWNER
REVIEW SET

City #:
Project No.: 091131
Date: June 23, 2010
Drawn by: PMA
Checked by: DDR
File: 1592_A2.00.dwg

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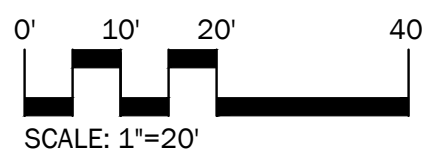
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PROJECT:

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DRAWING NAME:

Building Sections

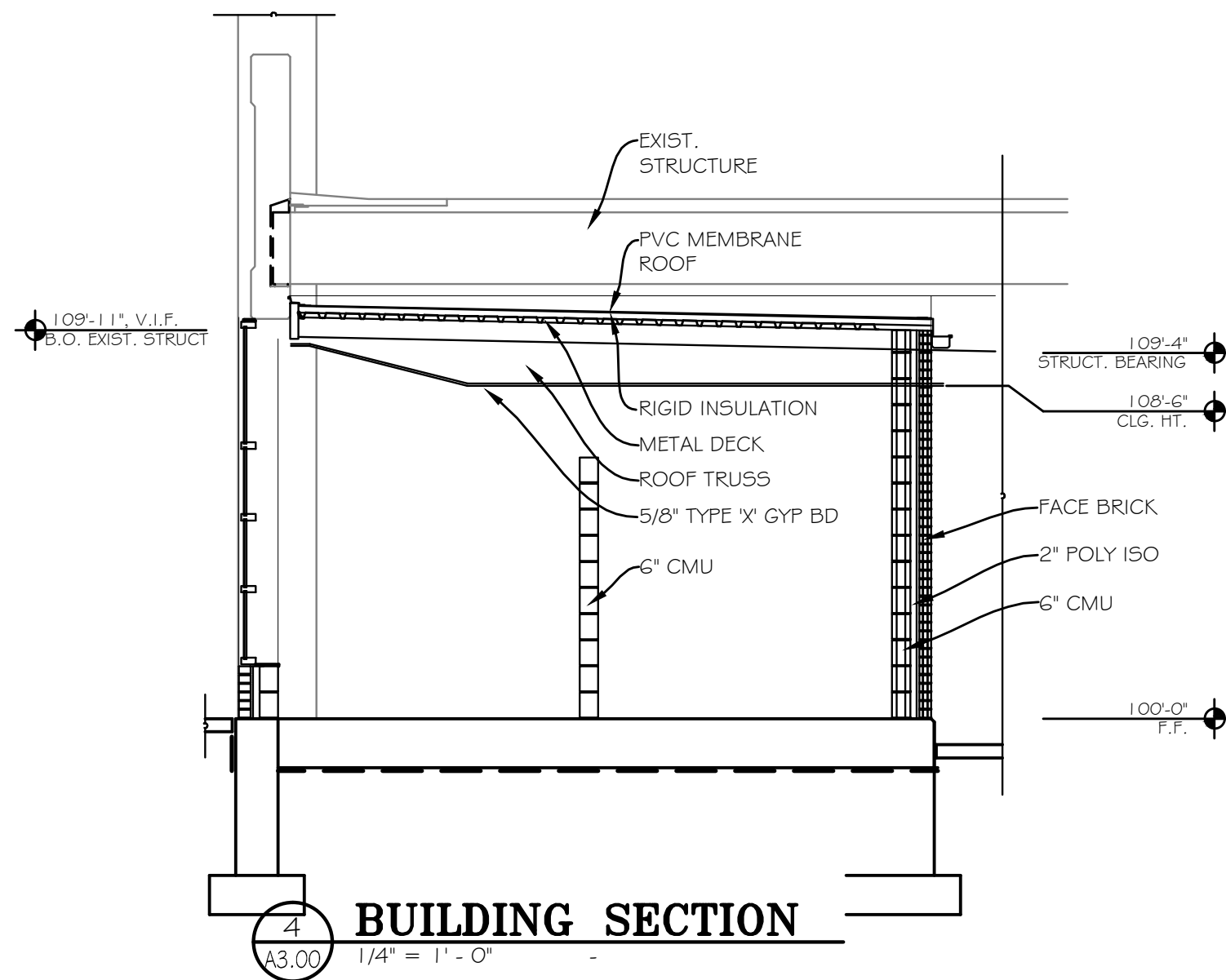
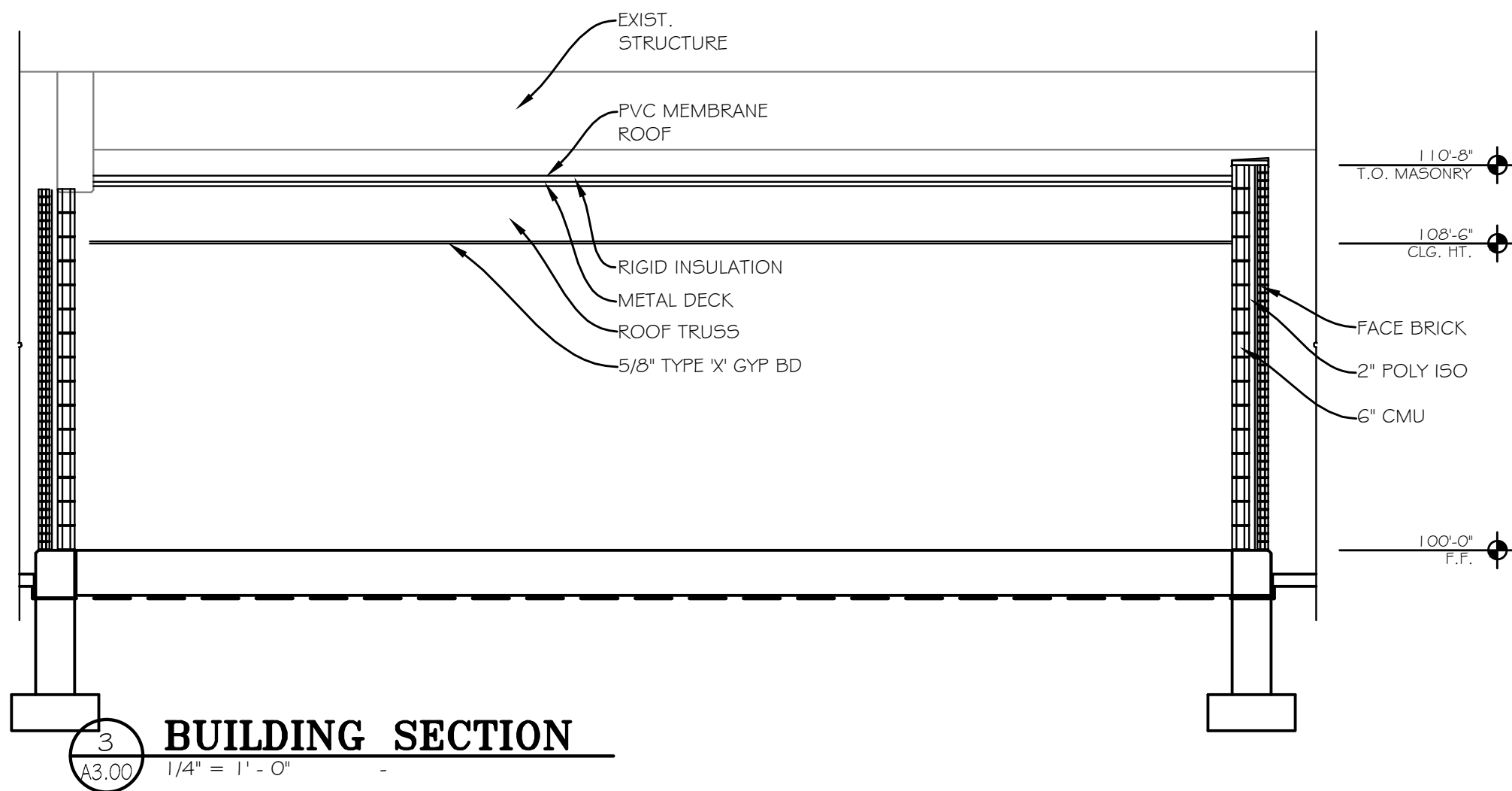
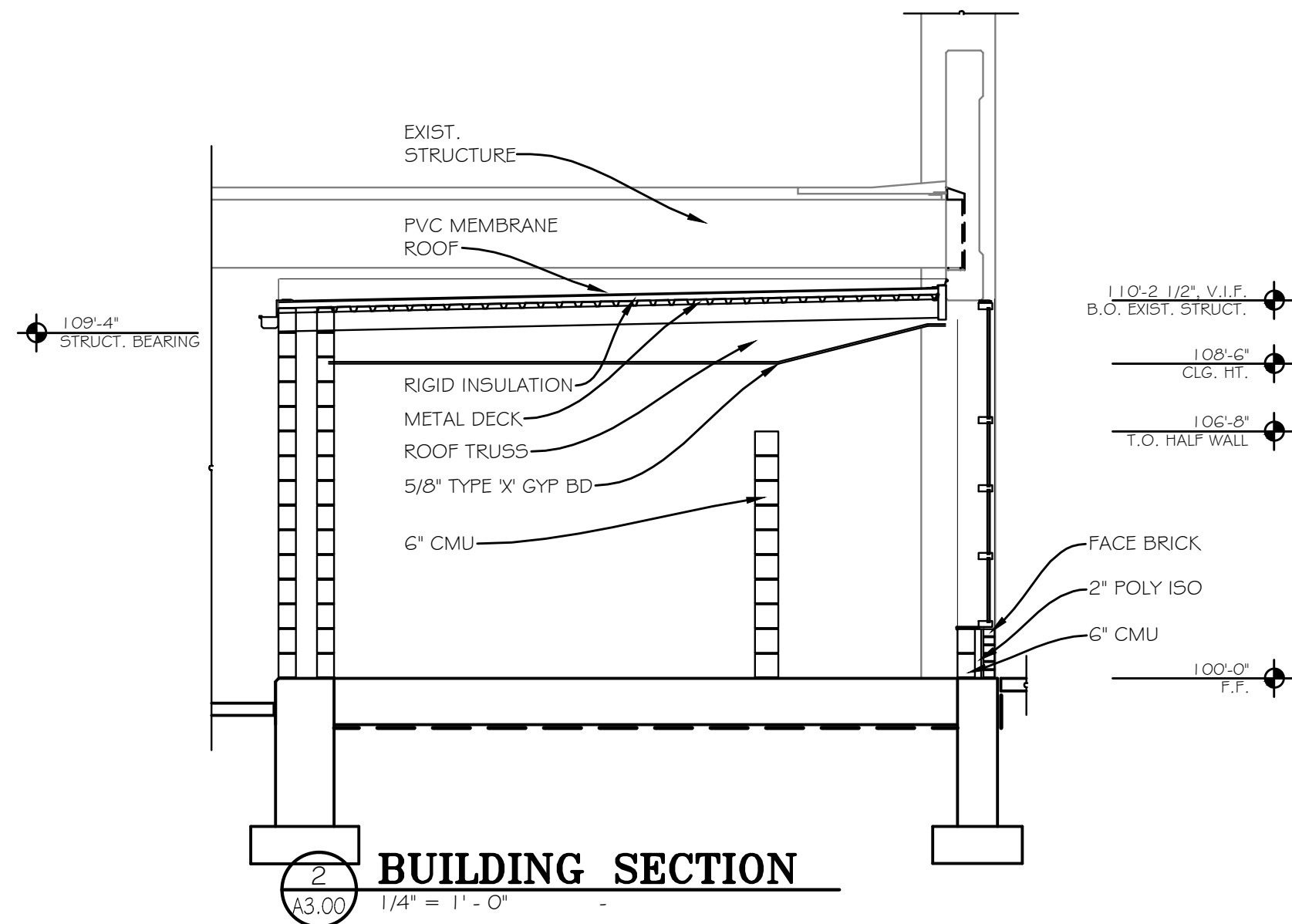
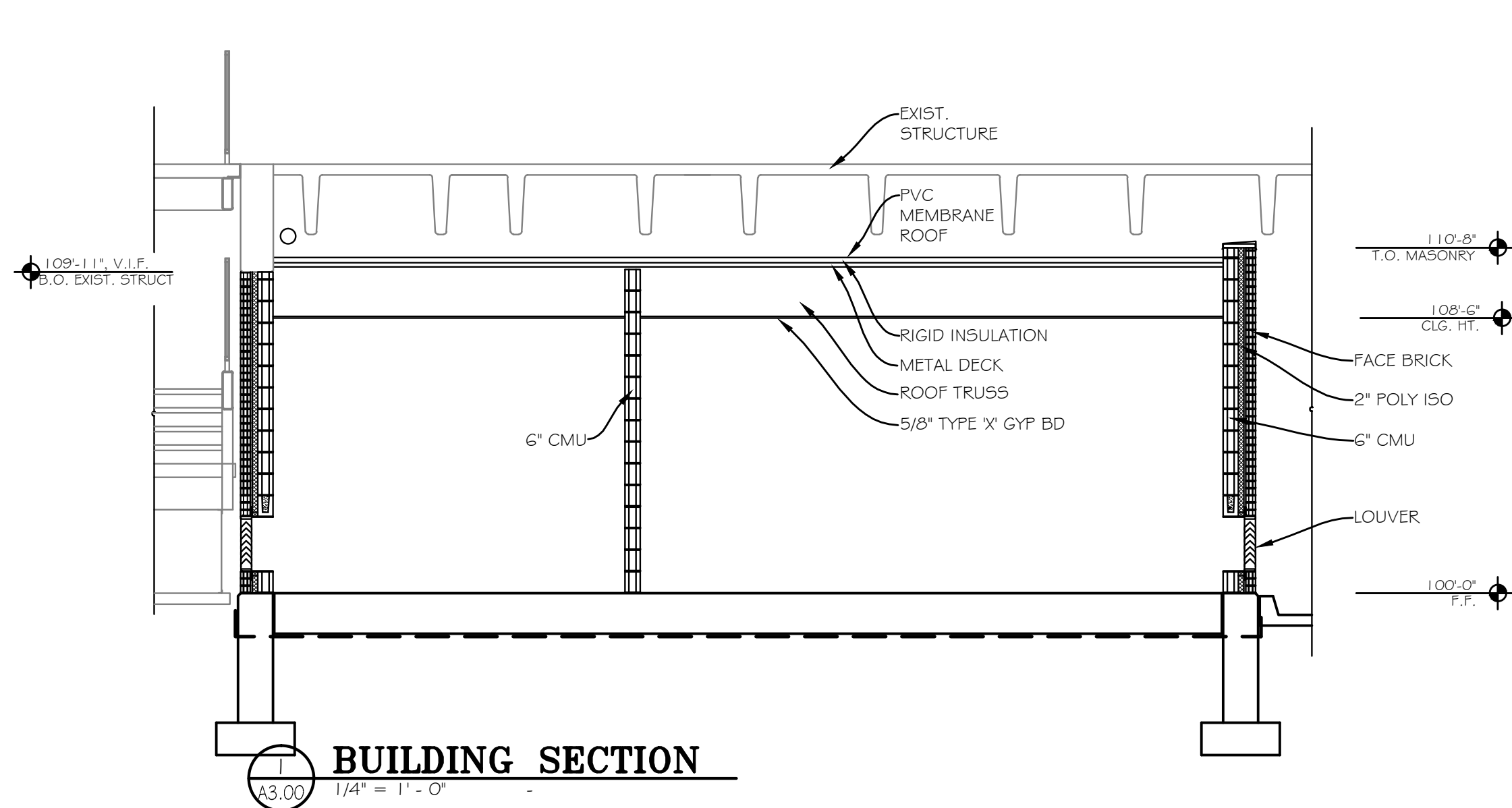
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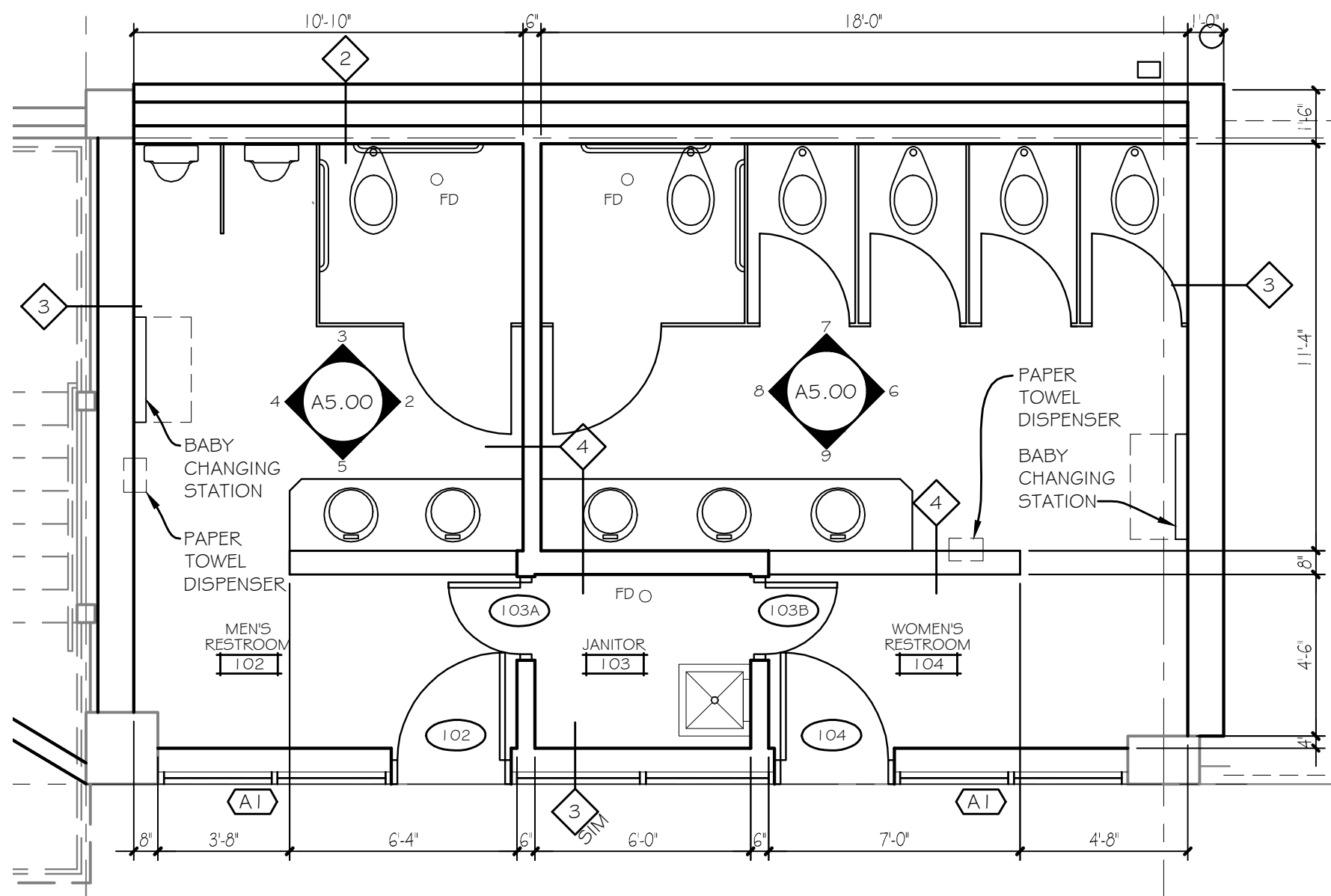
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City #:
Project No.: 091131
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File: 1592_A3.00.dwg

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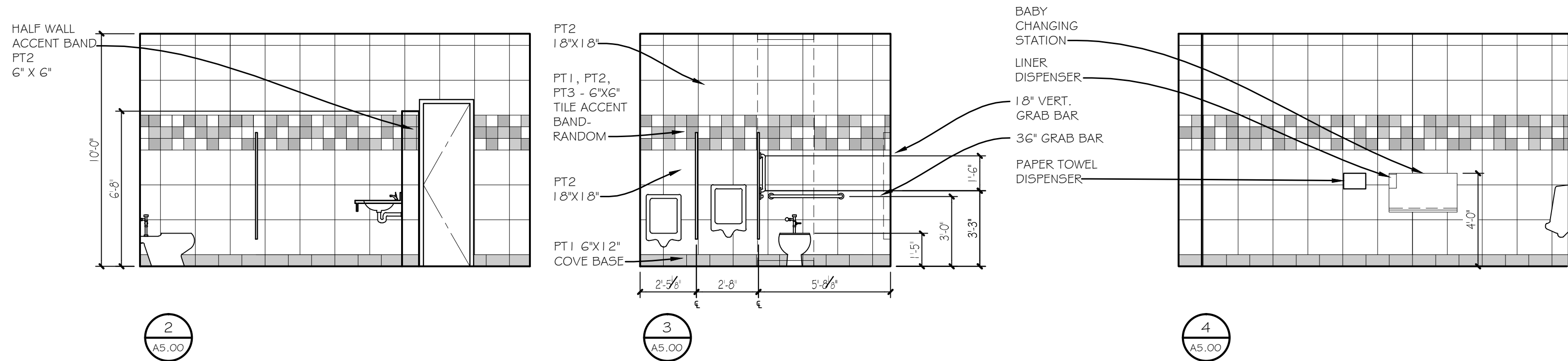
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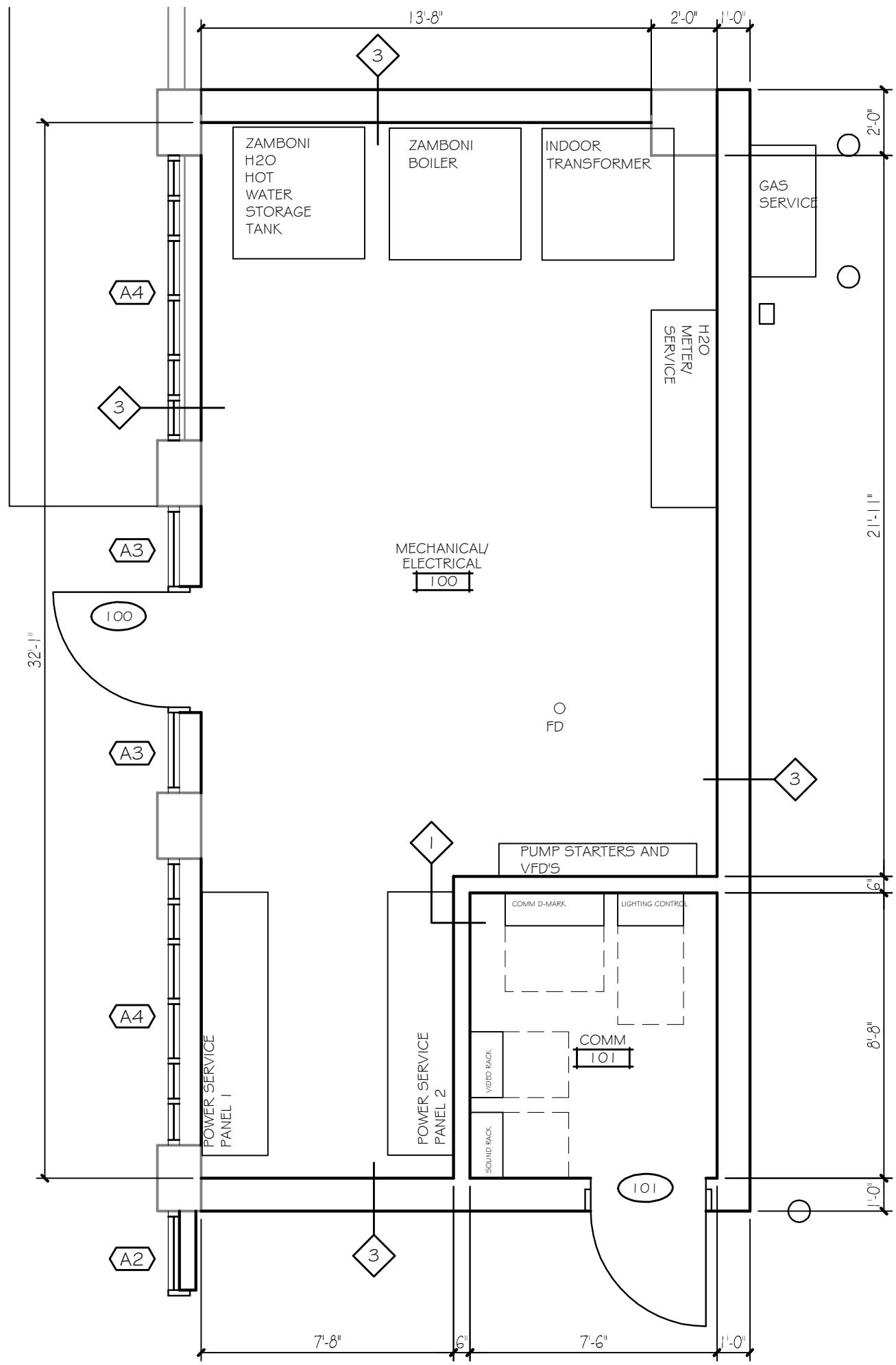
1
A5.00
1/4" = 1'-0"

ENLARGED RESTROOM PLAN



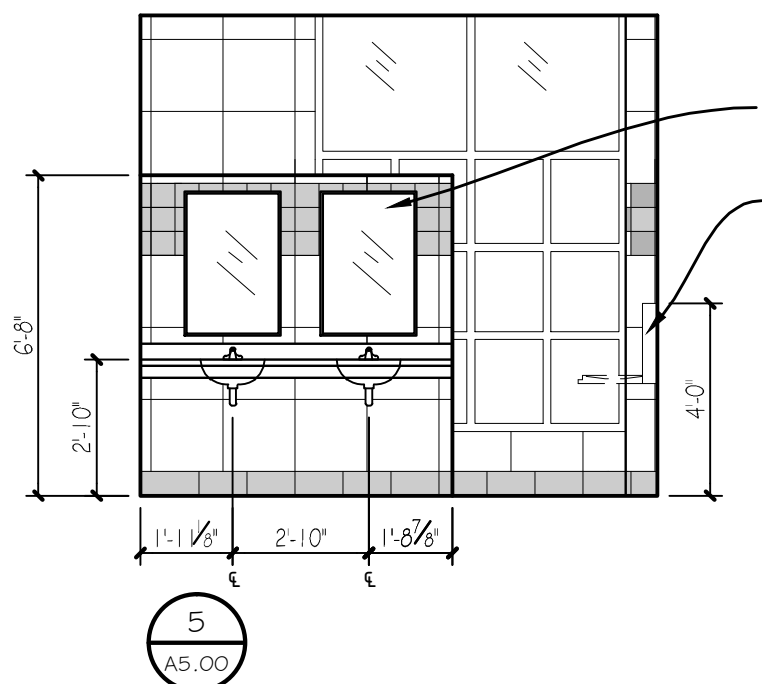
INTERIOR ELEVATIONS
1/4" = 1'-0"

MEN'S
TOILETS
102



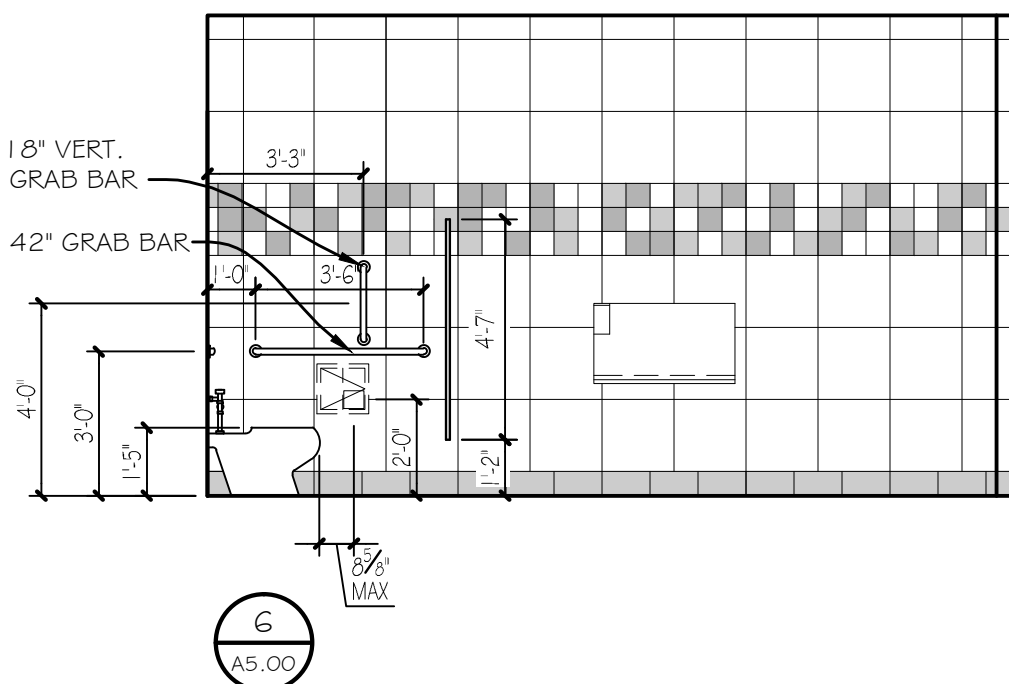
10
A5.00
1/4" = 1'-0"

ENLARGED MECHANICAL PLAN



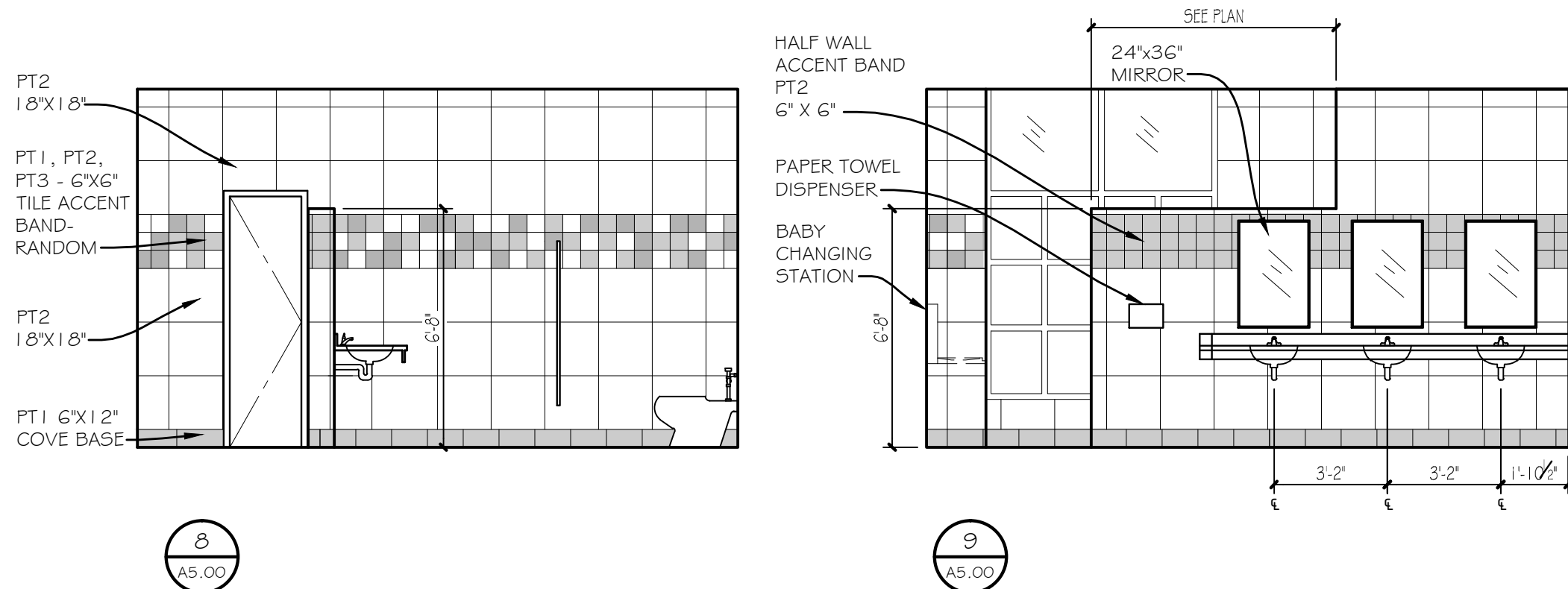
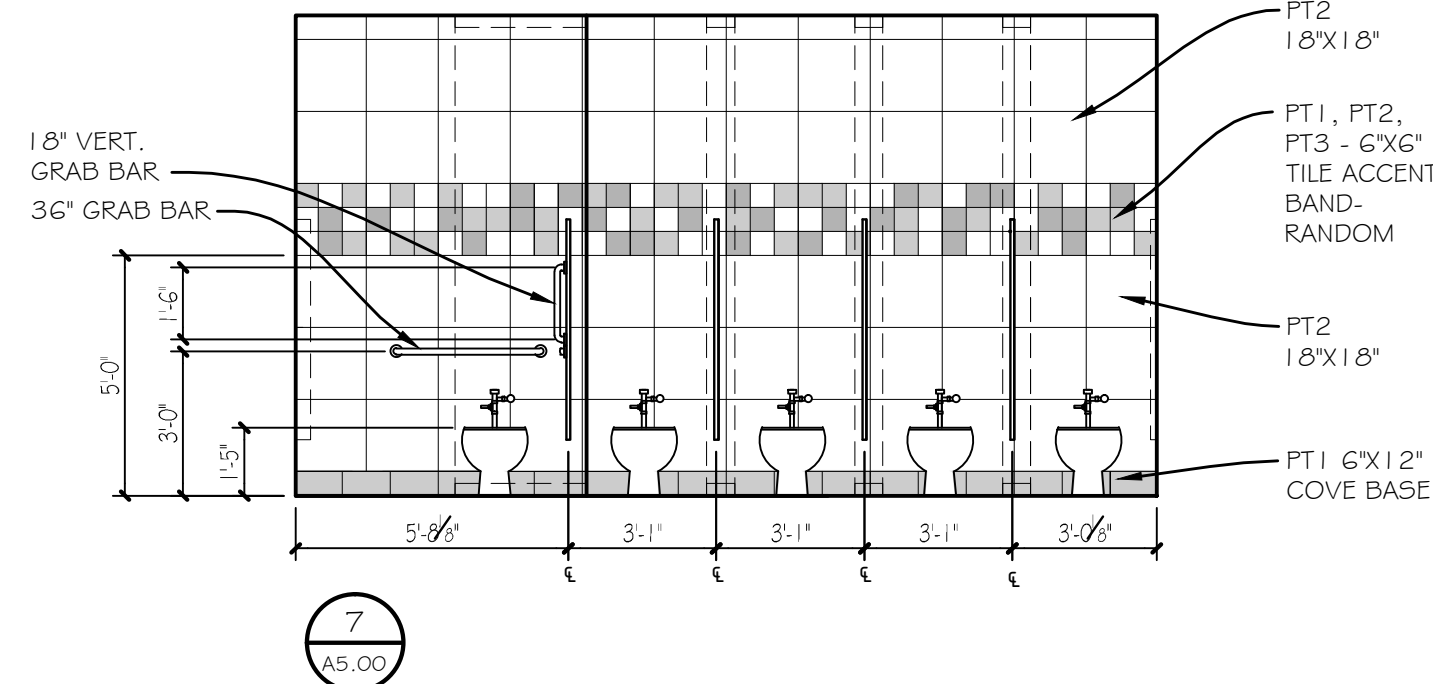
INTERIOR ELEVATIONS
1/4" = 1'-0"

MEN'S
TOILETS
102



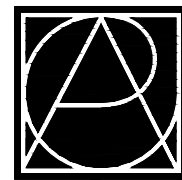
INTERIOR ELEVATIONS
1/4" = 1'-0"

WOMEN'S
TOILETS
104



INTERIOR ELEVATIONS
1/4" = 1'-0"

WOMEN'S
TOILETS
104



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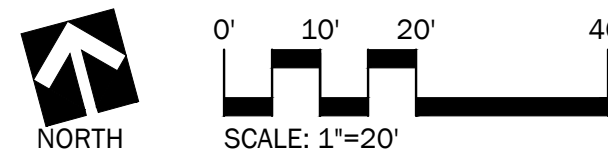
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PROJECT:

**Main Street Square
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REVISIONS:

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DRAWING NAME:

**Interior
Elevations**

CERTIFICATION:

50% CDs
OWNER
REVIEW SET

City #:
Project No.: 091131
Date: June 23, 2010
Drawn by: PMA
Checked by: DDR
File: 1592_A5.00.dwg

DRAWING #:

A5.00

ELECTRICAL ABBREVIATIONS			
A OR AMP	AMPERE	INTEGRAL	INTEGRAL DEVICE TO EQUIPMENT
AC	ALTERNATING CURRENT OR ABOVE COUNTER	J	JUNCTION BOX
ADD	ADDENDUM	KV	KILOVOLT
ADJS	ADJUSTABLE	KVA	KILOVOLT-AMPERE
AFC	AVAILABLE FAULT CURRENT	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	KWH	KILOWATT HOUR
AFI	ARC FAULT INTERRUPTER	LCL	LOCAL
AHU	AIR HANDLING UNIT	LS	LIFE SAFETY BRANCH/EMERG. POWER
AL	ALUMINUM	LT	LIGHT
ALT	ALTERNATE	MAX	MAXIMUM
APPROX	APPROXIMATELY	MC	MECHANICAL CONTRACTOR DIV. 15
AQUA	AQUASTAT	MCA	MINIMUM CIRCUIT AMPACITY
AR	AS REQUIRED	MCC	MOTOR CONTROL CENTER
ARCH	ARCHITECT	MDP	MAIN DISTRIBUTION PANEL
ATS	AUTOMATIC TRANSFER SWITCH	MFR	MANUFACTURER
AUX	AUX CONTACTS	MH	METAL HALIDE
AUTO	AUTOMATIC	MIN	MINIMUM
BFG	BELOW FINISHED GRADE	MLO	MAIN LUGS ONLY
C	CONDUIT	MMS	MANUAL MOTOR STARTER WITH OVERLOAD
CAB	CABINET	MOCBP	MAXIMUM OVERCURRENT PROTECTION
CB	CIRCUIT BREAKER	MAG	MAGNETIC STARTER W/OUT DISC.
CCT	CIRCUIT	MRT	MOTOR RATED TOGGLE SWITCH
CCTV	CLOSED CIRCUIT TV	MTD	MOUNTED
CLG	CEILING	MTR	MOTOR
CM	COMBINATION STARTER	N	NORMAL POWER BRANCH
CNTL	CONTROL	NEC	NATIONAL ELECTRICAL CODE
COND	CONDUCTOR	NF	NOT FUSED
CONN	CONNECT (ION)	NIC	NOT IN CONTRACT
CONTR	CONTRACTOR	NL	NIGHT LIGHT
CT	CURRENT TRANSFORMER	NO or #	NUMBER
CU	COPPER	NTS	NOT TO SCALE
CUH	CABINET UNIT HEATER	OC	ON CENTER
D	DIMMER	OD	OUTSIDE DIAMETER
DC	DIRECT CURRENT	OE	OWNER FURNISHED EQUIPMENT
DIA	DIAMETER	P	POLE
DN	DOWN	PB	PUSHBUTTON
DPDT	DOUBLE POLE DOUBLE THROW	PC	PHOTOELECTRIC CELL
DS	DISCONNECT SWITCH	PE	PNEUMATIC ELECTRIC
DWG	DRAWING	PF	POWER FACTOR
E	EQUIP. BRANCH OF EMERGENCY PWR	PH	PHASE
EA	EACH	PIV	PIST INDICATING VALVE
EC	ELECTRICAL CONTRACTOR DIV. 16	PL	PILOT LIGHT
EF	EXHAUST FAN	PLBG	PLUMBING
EH	ELECTRIC HEAT	PNL	PANEL
EHC	ELECTRIC HEATING COIL	PWR	POWER
EL	ELEVATION	REC	RECESSED
ELEC	ELECTRIC (AL)	RECEPT	RECEPTACLE
ELEV	ELEVATOR	REQD	REQUIRED
EM	EMERGENCY	RLA	RUNNING LOAD AMPS
EMT	ELECTRICAL METALLIC TUBING	RM	ROOM
ENCL	ENCLOSURE	RMT	REMOTE
EP	ELECTRIC PNEUMATIC	RPM	REVOLUTIONS PER MINUTE
EPO	EMERGENCY POWER OFF	RTU	ROOFTOP UNIT
EQUIP	EQUIPMENT	SC	SELF CONTAINED
EW	ELECTRIC WATER COOLER	SHT	SHEET
EX	EXISTING	SM	SURFACE MOUNT
EXH	EXHAUST	SP	SURGE PROTECTION
F	FUSE	SPEC	SPECIFICATIONS
F@#	FUSED AT # AMPERES	SPKR	SPEAKER
FA	FIRE ALARM	SPDT	SINGLE POLE DOUBLE THROW
FAA	FIRE ALARM ANNUNCIATOR	SPST	SINGLE POLE SINGLE THROW
FACP	FIRE ALARM CONTROL PANEL	SQ	SQUARE
FBO	FURNISHED BY OTHERS	SS	STAINLESS STEEL
FC	FOOTCANDLE	STD	STANDARD
FD	FIRE DAMPER	SUSP	SUSPENDED
FDS	FUSED DISCONNECT SWITCH	SW	SWITCH
FIN	FINISHED	SWBD	SWITCHBOARD
FL	FLOOR	SYS	SYSTEM
FLA	FULL LOAD AMPS	TC	TEMPERATURE CONTROL CONTRACTOR
FLUOR	FLUORESCENT	TEL	TELEPHONE
FSD	FIRE/SMOKE DAMPER	TEMP	TEMPERATURE
FT or '	FOOT or FEET	TMB	TELEPHONE MOUNTINGBOND
GC	GENERAL CONTRACTOR	T--STAT	THERMOSTAT
GEN	GENERATOR	TV	TELEVISION
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
GND	GROUND	UG	UNDERGROUND
GRC	GALVANIZED RIGID CONDUIT	UL	UNDERWRITERS LABORATORY
H	HEATING EQUIPMENT	UH	UNIT HEATER
HD	HEAVY DUTY	UT	UNDERGROUND TEL/TV
HID	HIGH INTENSITY DISCHARGE	V	VOLT
HOA	HAND-OFF AUTO SWITCH	VC	VENTILATION CONTRACTOR
HP	HORSEPOWER	VENT	VENTILAT (ING/ION)
HPS	HIGH PRESSURE SODIUM	VFD	VARIABLE FREQUENCY DRIVE
HT	HEIGHT	W	WATT
HTR	HEATER	WP	WEATHERPROOF
HZ	HERTZ	WT	WEIGHT
ID	INTEGRAL DISCONNECT	XFMR	TRANSFORMER
INCAND	INCANDESCENT	ZS	POSITION SWITCH
IN or "	INCH		

SYMBOL	DESIGNATION	MTG. HT.
GENERAL		
	INDICATES ALL DEVICES GANGED UNDER ONE COVERPLATE	
	INDICATES EXISTING ITEM TO BE REMOVED	
	INDICATES EXISTING ITEM TO REMAIN	
	INDICATES NEW ITEM	

NOTES		
1. THESE SYMBOLS COMPRISE A STANDARD LIST, NOT ALL SYMBOLS MAY APPEAR ON THESE DRAWINGS.		
2. MOUNTING HEIGHTS GIVEN ARE STANDARD. WHERE DIMENSIONAL NUMBER IS SHOWN AT DEVICE, THIS SHALL BE THE MOUNTING HEIGHT. MOUNTING HEIGHTS ARE TO CENTER OF OUTLET UNLESS NOTED OTHERWISE.		
3. MOUNTING HEIGHTS INDICATED ARE FOR STUD WALL CONSTRUCTION, WHEN BLOCK OR BRICK CONSTRUCTION IS USED, ADJUST MOUNTING HEIGHTS TO ALIGN DEVICES OR DEVICE PLATES WITH RUNNING JOINT.		

SYMBOL	DESIGNATION	MTG. HT.
LIGHTING SYSTEM		
	TYPICAL FIXTURE DESIGNATION LIGHT FIXTURE TYPE	
	SWITCHING	
	FLUORESCENT FIXTURE	
	EMERGENCY FLUORESCENT FIXTURE	
	ON CENTER	VERIFY
	SURFACE FLUORESCENT, WALL MOUNTED	
	SURFACE STRIP FLUORESCENT FIXTURE	
	CEILING FIXTURE	
	CEILING FIXTURE (WALL WASH TYPE) ARROW INDICATES AMING DIRECTION	
	WALL FIXTURE	VERIFY
	CEILING FIXTURE (EMERGENCY)	
	TRACK LIGHTING (CIRCLES INDICATE NUMBER OF HEADS)	
	POLE MOUNTED LIGHT FIXTURES (QUANTITY OF HEADS AS INDICATED)	
	SINGLE FACE EXIT SIGN (WALL MOUNTED) WITH ARROW AS INDICATED, SHADED QUADRANT DENOTES FACE DIRECTION	80"
	DOUBLE FACE EXIT SIGN (CEILING MOUNTED) WITH ARROW AS INDICATED, SHADED QUADRANT DENOTES FACE DIRECTION	CLG.
	BATTERY POWERED EMERGENCY LIGHTING UNIT.	80"
	SINGLE POLE SWITCH	48"
	DOUBLE POLE SWITCH	48"
	THREE WAY SWITCH	48"
	FOUR WAY SWITCH	48"
	SWITCH, "d" INDICATES SWITCH DESIGNATION	48"
	SWITCH WITH PILOT LIGHT	48"
	SWITCH WITH ILLUMINATED TOGGLE	48"
	KEY SWITCH	48"
	MOMENTARY CONTACT SWITCH	48"
	TIMER SWITCH	48"
	DIMMER SWITCH, WATTAGE AS NOTED	48"
	TIME CLOCK	VERIFY
	PHOTO ELECTRIC CELL	VERIFY

SYMBOL	DESIGNATION	MTG. HT.
POWER SYSTEMS		
	BRANCH CIRCUIT PANEL	
	EMERGENCY PANEL	
	DISTRIBUTION PANEL OR SWITCHBOARD	
	EQUIPMENT CABINET	
	TRANSFORMER	
	MOTOR	
	INDICATES EQUIPMENT SCHEDULE IDENTIFICATION NUMBER (SEE EQUIPMENT SCHEDULE)	
	CONTROLLER OR STARTER	
	COMBINATION STARTER & DISCONNECT	
	DISCONNECT OR SAFETY SWITCH	
	MOTOR RATED TOGGLE SWITCH	48"
	MANUAL MOTOR STARTER, WITH OVERLOAD PROTECTION	48"
	CONTROL STATION	48"
	RELAY	
	CONTACTOR	
	ELECTRIC THERMOSTAT	48"
	POWER POLE	
	SINGLE RECEPTACLE	18"
	CLOCK RECEPTACLE	80"
	DUPLEX RECEPTACLE	18"
	CEILING MOUNTED RECEPTACLE	
	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT	18"
	SPLIT WIRED DUPLEX RECEPTACLE	18"
	DOUBLE DUPLEX RECEPTACLE	18"
	DOUBLE DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT	18"
	SPECIAL PURPOSE OUTLET OR CONNECTION -- LETTER DENOTES TYPE	18"
	FLOOR OUTLET (DEVICES AS INDICATED)	
	MULTIOUTLET ASSEMBLY, AS SPECIFIED	AS NOTED
	HAND DRYER	

SYMBOL	DESIGNATION	MTG. HT.
RACEWAY SYSTEM		
	CONDUIT CONCEALED IN CEILING OR WALLS	
	CONDUIT CONCEALED IN FLOOR OR BELOW	
	EXPOSED CONDUIT	
	UNDERGROUND ELECTRIC -- 30" INDICATES BURIAL DEPTH	
	CONDUIT INSTALLED INTO CEILING SPACE WITH BUSHED END (B) OR CAPPED END (C)	
	ELEVATION CHANGE IN CONDUIT UP	
	ELEVATION CHANGE IN CONDUIT DOWN	
	MATCH MARK FOR CONDUIT CONTINUATION	
	CIRCUIT HOME RUN, L1 INDICATES PANEL, 1,3 INDICATES POLE NUMBER	
	"d" DESIGNATES LIGHTING SWITCH	
	UNLESS OTHERWISE INDICATED, EACH CROSS HASH DENOTES ONE # 12 CONDUCTOR. NO CROSS HASH DENOTES 3 # 12 CONDUCTORS. LONGER CROSS HASH INDICATES NEUTRAL CONDUCTOR. \ INDICATES GROUNDING CONDUCTOR.	
	PULL BOX	
	JUNCTION BOX	
	WIREWAY	
	CABLE TRAY	
	UNDERFLOOR DUCT AND JUNCTION BOX, NUMBER OF CELLS DENOTED BY NUMBER OF SPACES BETWEEN LINES. TYPE OF CELL DENOTED BY P (POWER), T (TELEPHONE), C (COMMUNICATIONS).	
	BACK BOX -- INSTALL SINGLE GANG BACKBOX WITH 3/4" EMT CONDUIT UP TO ACCESSIBLE CEILING SPACE. PROVIDE BLANK COVER MATCHING DECOR X" = OVERSIZE IF NOTED	48"
	JUNCTION BOX W/3/4" EMT TO ACCESSIBLE CEILING, PLASTIC BUSHING. PROVIDE BLANK COVER MATCHING ADJACENT DEVICES.	18"

SYMBOL	DESIGNATION	MTG. HT.
SIGNAL SYSTEMS		
	PUSHBUTTON	48"
	BUZZER	80"
	BELL	80"
	TELEPHONE OUTLET	18"
	TELEPHONE OUTLET -- WALL MOUNTED	48"
	DATA OUTLET/DATA OUTLET	18"
	DATA OUTLET	18"
	TELEPHONE OUTLET/DATA OUTLET	18"
	WALL SPEAKER	80"
	CEILING SPEAKER	
	HORN TYPE SPEAKER	80"
	COMBINATION CLOCK/SPEAKER	80"
	MICROPHONE OUTLET	18"
	SPEAKER VOLUME CONTROL	48"
	INTERCOM STATION (M: MASTER, R: REMOTE STATION)	48"
	TV ANTENNA OUTLET	VERIFY
	CLOSED CIRCUIT TV CAMERA	VERIFY
	SYSTEM CLOCK -- DIMENSION DENOTES CLOCK SIZE	80"
	TERMINAL CABINET	
	ANNUNCIATOR PANEL	

SYMBOL	DESIGNATION	MTG. HT.
FIRE ALARM SYSTEM		
	FIRE ALARM MANUAL STATION	48"
	FIRE ALARM HEAT DETECTOR -- FIXED TEMPERATURE	VERIFY
	FIRE ALARM HEAT DETECTOR -- RATE OF RISE	VERIFY
	FIRE ALARM RELAY	VERIFY
	FIRE ALARM HEAT DETECTOR -- 135° INDICATES TEMP. RATING	VERIFY
	FIRE ALARM SMOKE DETECTOR -- IONIZATION	VERIFY
	FIRE ALARM SMOKE DETECTOR -- PHOTOELECTRIC	VERIFY
	FIRE ALARM MULTI-STATION ALARM -- PHOTOELECTRIC	
	FIRE ALARM SINGLE STATION ALARM -- PHOTOELECTRIC	
	FIRE ALARM DUCT MOUNTED SMOKE DETECTOR	
	FIRE ALARM STATION -- REMOTE RESET/TEST STATION FOR DUCT DETECTOR	48"
	REMOTE INDICATOR LAMP	VERIFY
	FIRE ALARM BEAM DETECTOR TRANSMITTER	
	FIRE ALARM BEAM DETECTOR RECEIVER	
	FIRE ALARM FLOW SWITCH MONITOR MODULE	
	FIRE ALARM TAMPER SWITCH MOTOR MODULE	
	FIRE ALARM MONITOR MODULE	
	FIRE ALARM PRESSURE SWITCH MONITOR MODULE	
	FIRE ALARM CONTROL MODULE	
	FIRE/SMOKE DAMPER	
	MAGNETIC DOOR HOLDER	VERIFY
	FIRE ALARM FIREMAN'S STATION	48"
	FIRE ALARM STROBE -- 110 INDICATES CANDELLA IN SLEEPING AREAS, TOP OF LENS NOT LESS THAN 24" BELOW CEILING	80"
	FIRE ALARM HORN TOP OF DEVICE NOT LESS THAN 90" AFF AND NOT LESS THAN 6" BELOW FINISHED CEILING. IN SLEEPING AREAS, TOP OF LENS NOT LESS THAN 24" BELOW CEILING	80"
	FIRE ALARM HORN AND STROBE -- 110 INDICATES CANDELLA IN SLEEPING AREAS, TOP OF LENS NOT LESS THAN 24" BELOW CEILING	80"
	FIRE ALARM CONTROL PANEL	
	FIRE ALARM ANNUNCIATOR	

SYMBOL	DESIGNATION	MTG. HT.
SECURITY SYSTEM		
	SECURITY CARD READER	48"
	SECURITY KEYPAD	48"
	SECURITY KEY SWITCH	48"
	SECURITY EXIT SENSOR	
	SECURITY EXIT PUSHBUTTON	48"
	SECURITY ELECTRIC STRIKE	
	SECURITY MAGNETIC LOCK	
	SECURITY ELECTRIC LOCK	
	SECURITY POWER TRANSFER HINGE	
	SECURITY DOOR CONTACT	
	SECURITY OVERHEAD DOOR CONTACT	
	SECURITY MONITOR STRIKE	
	SECURITY MOTION DETECTOR	
	SECURITY GLASS BREAK DETECTOR	

SHEET INDEX	
E0.00	ELECTRICAL LEGEND AND SHEET INDEX
ED1.10	SITE DEMOLITION PLAN
E1.10	SITE LIGHTING PLAN
E1.20	SITE POWER PLAN
E1.30	SITE SIGNAL PLAN
E2.10	ELECTRICAL FLOOR PLANS
E2.20	ELECTRICAL SCHEDULES & RISERS
E2.30	ELECTRICAL DETAILS



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PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**

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DRAWING NAME:
**ELECTRICAL LEGEND
SHEET INDEX**

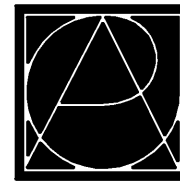
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Project No.: 091131
Date: June 23, 2010
Drawn by: MMM
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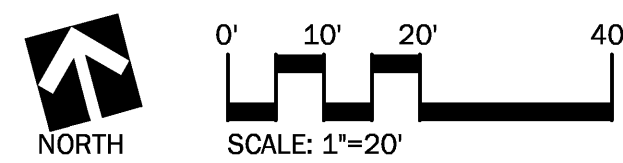
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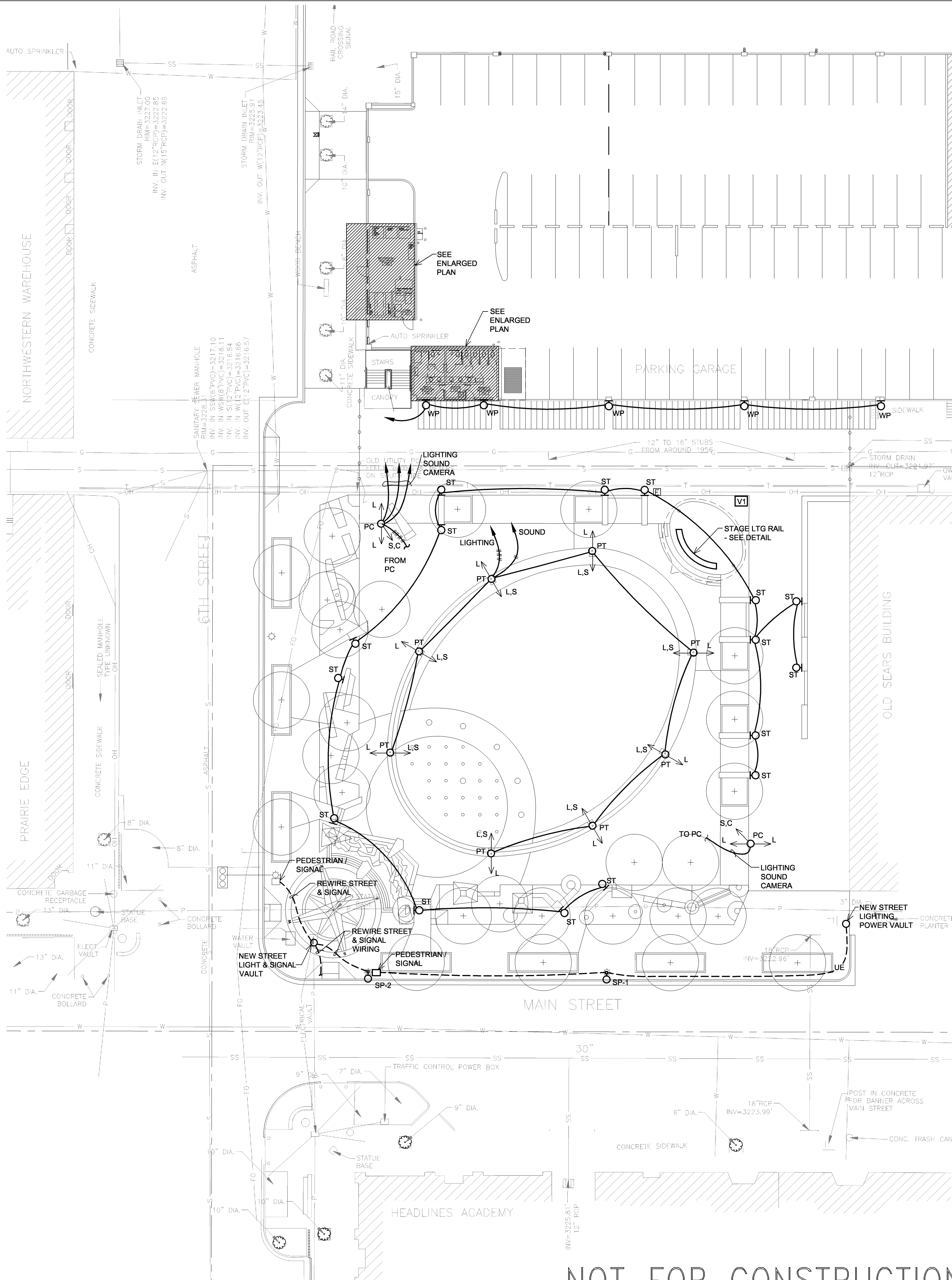
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DRAWING NAME:	
SITE LIGHTING PLAN	
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City #:	091131
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SHEET LEGEND

- V1** POWER VAULT (SEE DETAILS)
V2 POWER/COMM/CONTROLS VAULT (SEE DETAILS)
L, S, C
PT OR PC
STREETSCAPE POLE WITH SERVICES
DESIGNATED AS L=LIGHT, S=SOUND,
C=CAMERA.



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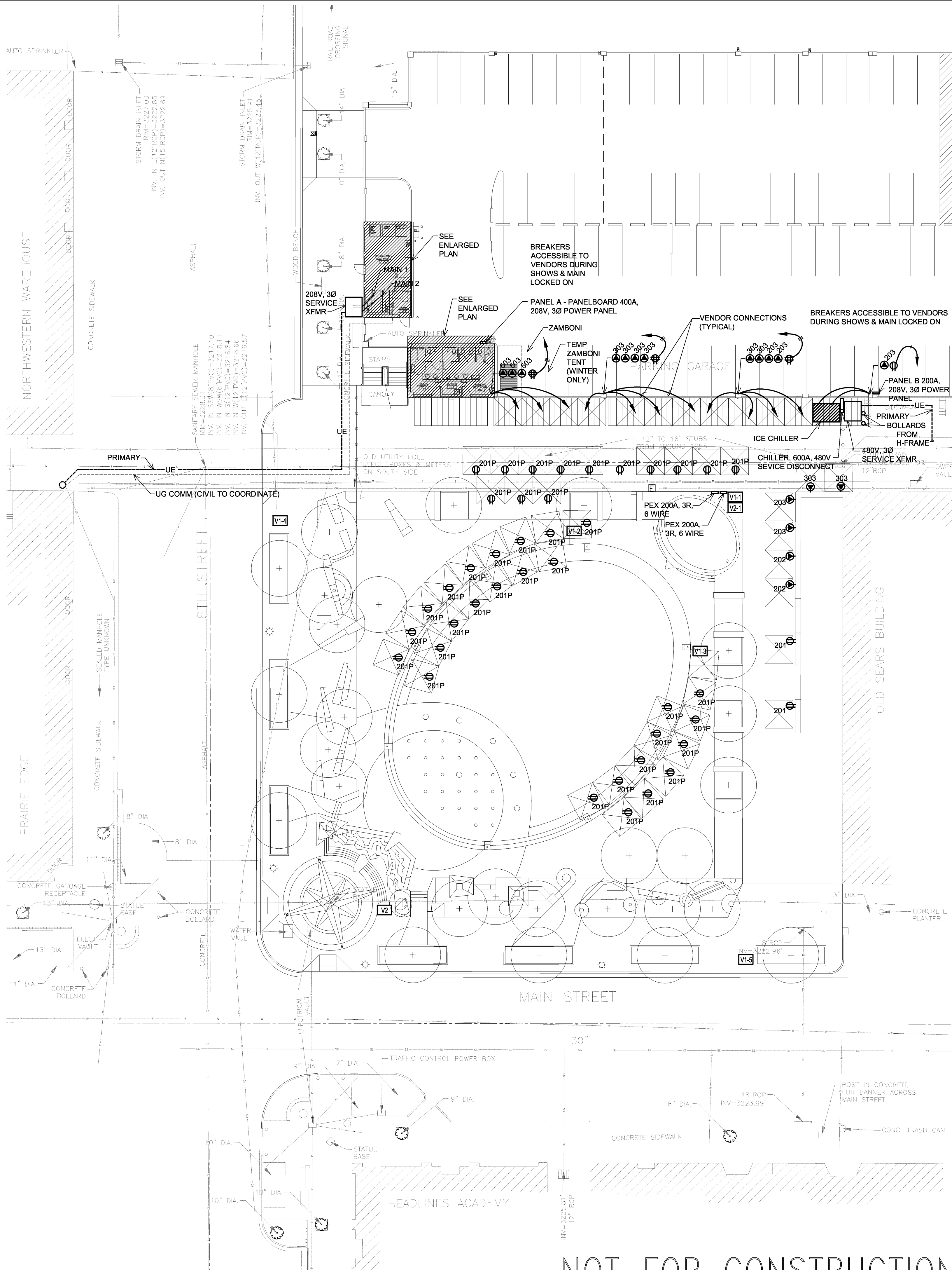
BOOTH POWER RECEPTACLES - PERMANENT INSTALL

- 201 120V SINGLE PHASE 20 AMP RECEPT (GFI) RECESSED IN WALL
- 202 208V SINGLE PHASE 20 AMP RECEPT/PIN AND SLEEVE
- 203 208V THREE PHASE 20 AMP RECEPT/PIN AND SLEEVE
- 301 120V THREE PHASE 30 AMP RECEPT/PIN AND SLEEVE
- 302 208V SINGLE PHASE 30 AMP RECEPT/PIN AND SLEEVE
- 303 208V THREE PHASE 30 AMP RECEPT/PIN AND SLEEVE
- 403 208V THREE PHASE 40 AMP RECEPT/PIN AND SLEEVE
- 501 120V SINGLE PHASE 50 AMP RECEPT/PIN AND SLEEVE
- 502 208V SINGLE PHASE 50 AMP RECEPT/PIN AND SLEEVE
- 503 208V THREE PHASE 50 AMP RECEPT/PIN AND SLEEVE

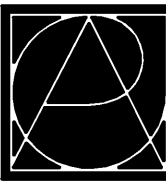
BOOTH POWER RECEPTACLES - VIA PORTABLE

- 201P 120V SINGLE PHASE 20 AMP RECEPT (GFI) RECESSED IN WALL
- 202P 208V SINGLE PHASE 20 AMP RECEPT/PIN AND SLEEVE
- 203P 208V THREE PHASE 20 AMP RECEPT/PIN AND SLEEVE
- 301P 120V THREE PHASE 30 AMP RECEPT/PIN AND SLEEVE
- 302P 208V SINGLE PHASE 30 AMP RECEPT/PIN AND SLEEVE
- 303P 208V THREE PHASE 30 AMP RECEPT/PIN AND SLEEVE
- 403P 208V THREE PHASE 40 AMP RECEPT/PIN AND SLEEVE
- 501P 120V SINGLE PHASE 50 AMP RECEPT/PIN AND SLEEVE
- 502P 208V SINGLE PHASE 50 AMP RECEPT/PIN AND SLEEVE
- 503P 208V THREE PHASE 50 AMP RECEPT/PIN AND SLEEVE

- V1 POWER VAULT (SEE DETAILS)
- V2 POWER/COMM/CONTROLS VAULT (SEE DETAILS)



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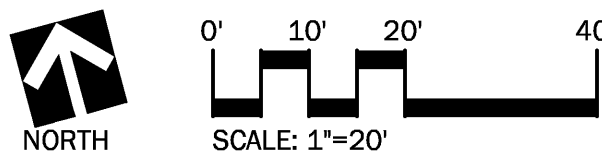
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PROJECT:

**Main Street Square
Site Development
Rapid City, South Dakota**

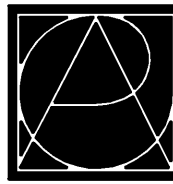


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SITE POWER PLAN	
CERTIFICATION:	
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City #:	091131
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Date:	MMM
Drawn by:	JBS
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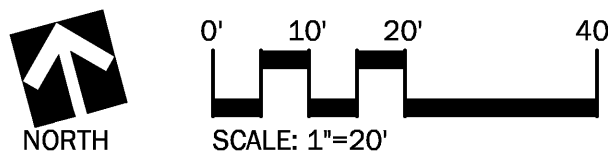
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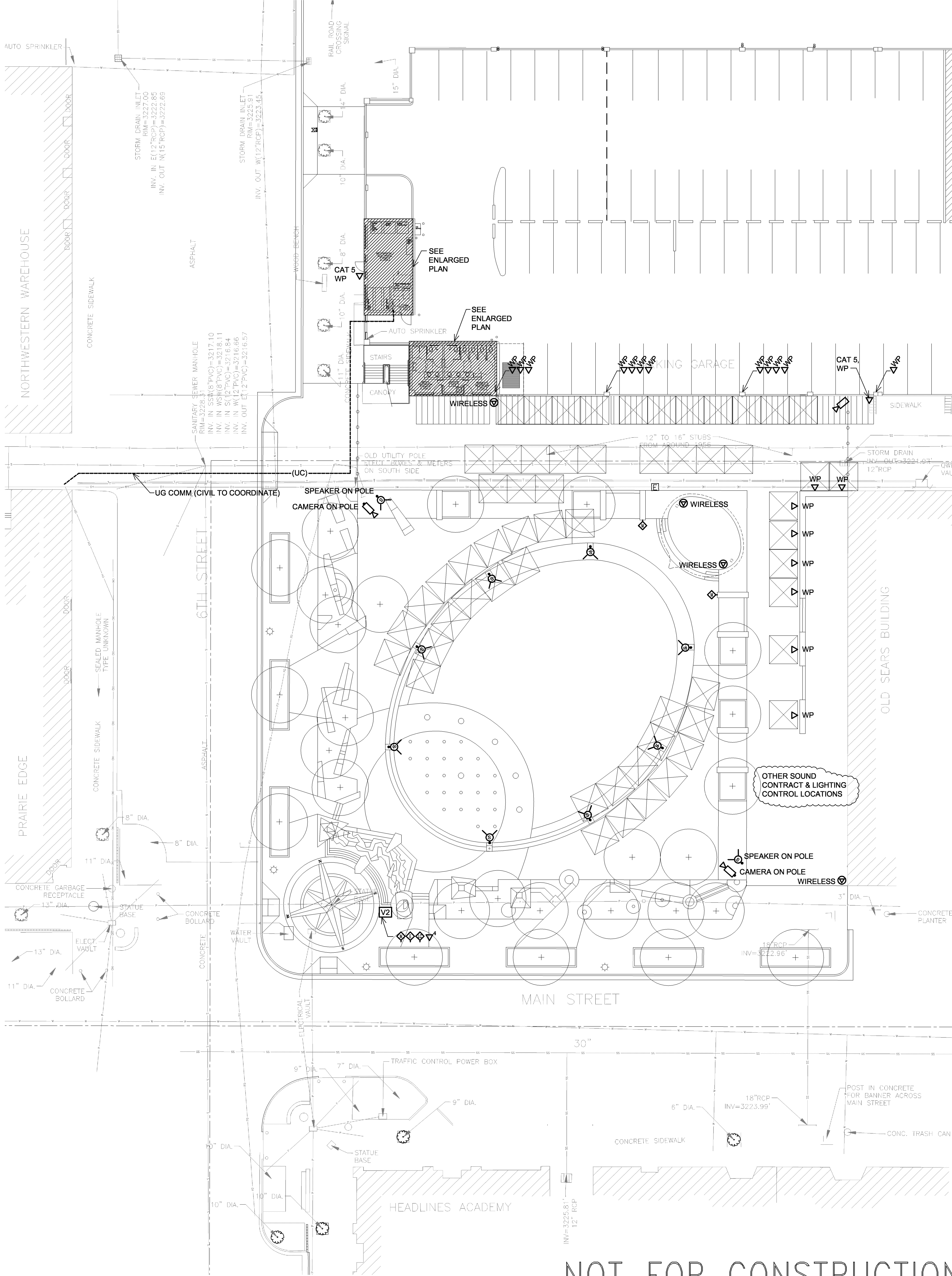
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DRAWING NAME:	
SITE SIGNAL PLAN	
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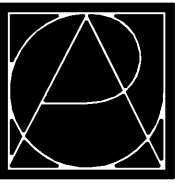
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E1.30

SHEET LEGEND

- V3** POWER VAULT (SEE DETAILS)
- V2** POWER/COMM/CONTROLS VAULT (SEE DETAILS)



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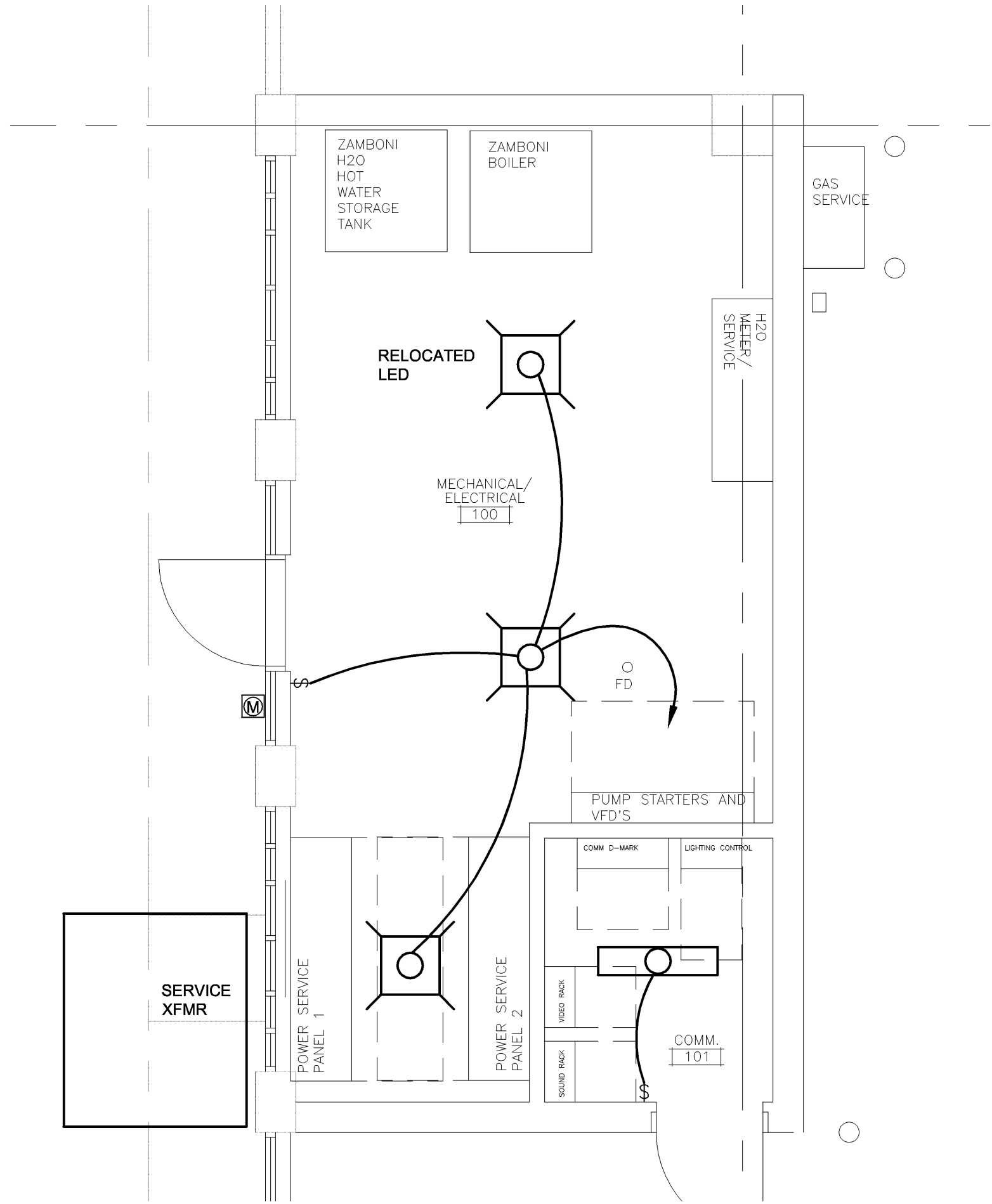
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ELECTRICAL FLOOR PLANS

CERTIFICATION:

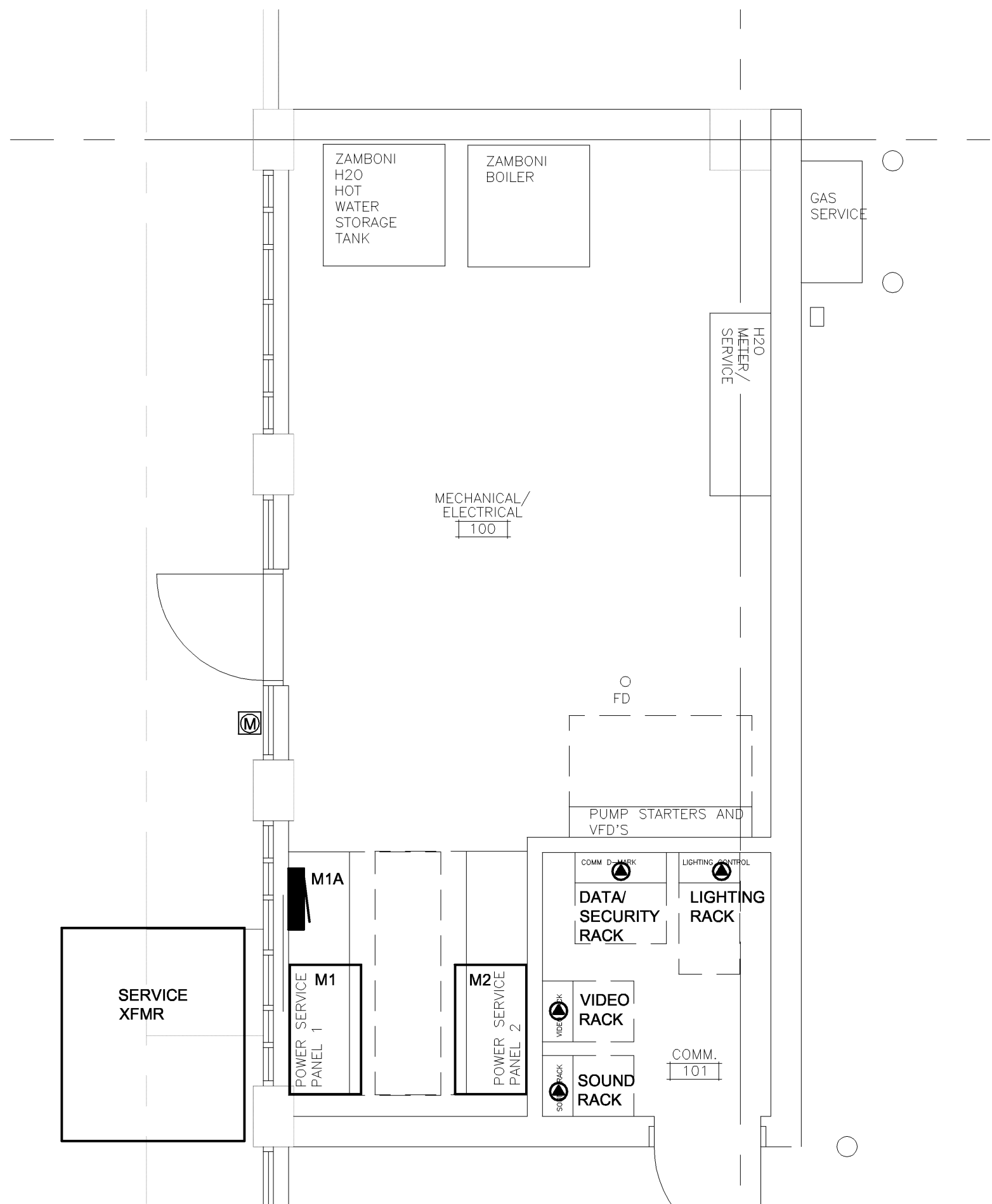
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	Project No.:	June 23, 2010
	Date:	MMM
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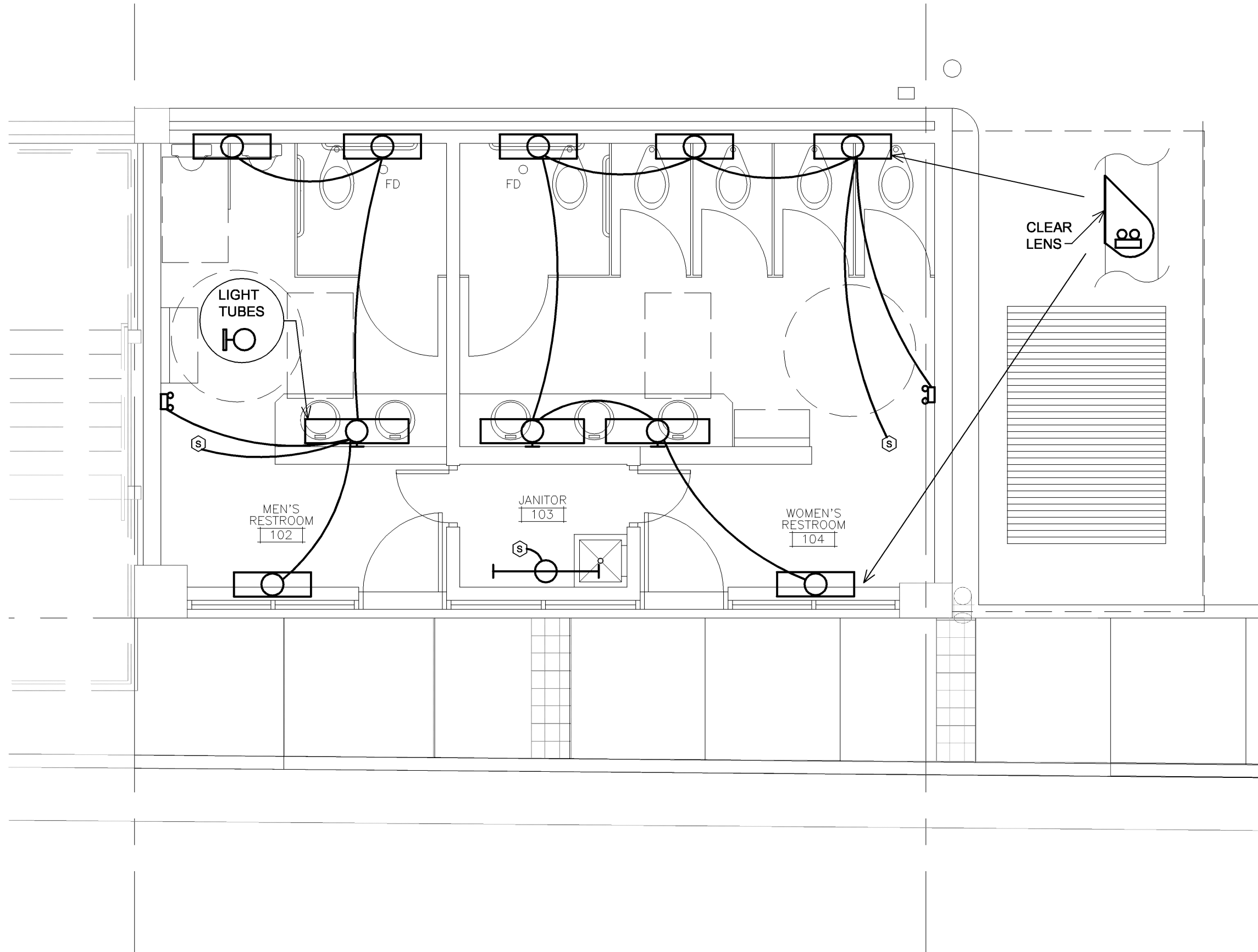
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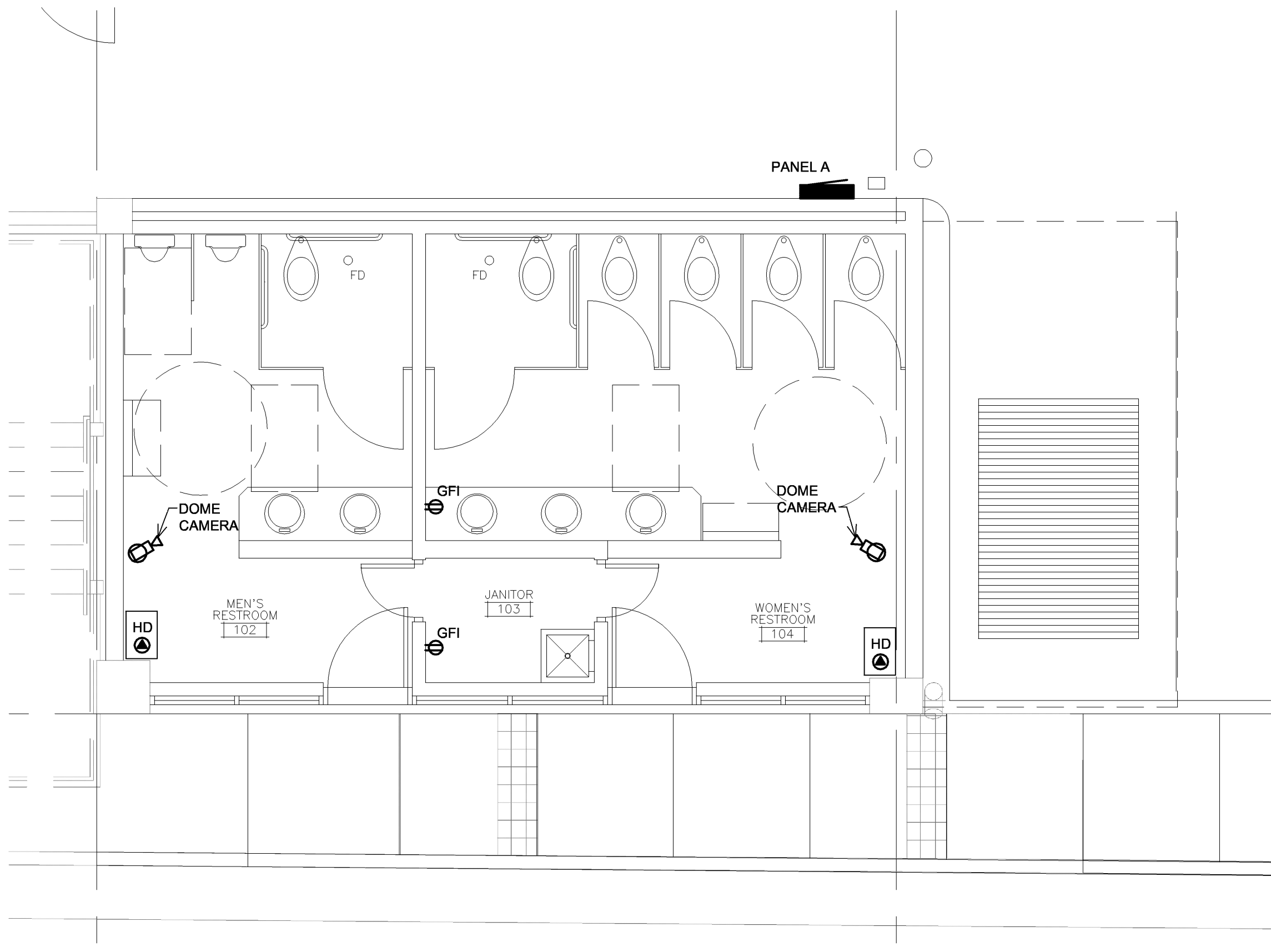
MECHANICAL ELECTRICAL ROOM LIGHTING PLAN
SCALE: 1/4"=1'-0"



MECHANICAL ELECTRICAL ROOM POWER/SIGNAL PLAN
SCALE: 1/4"=1'-0"

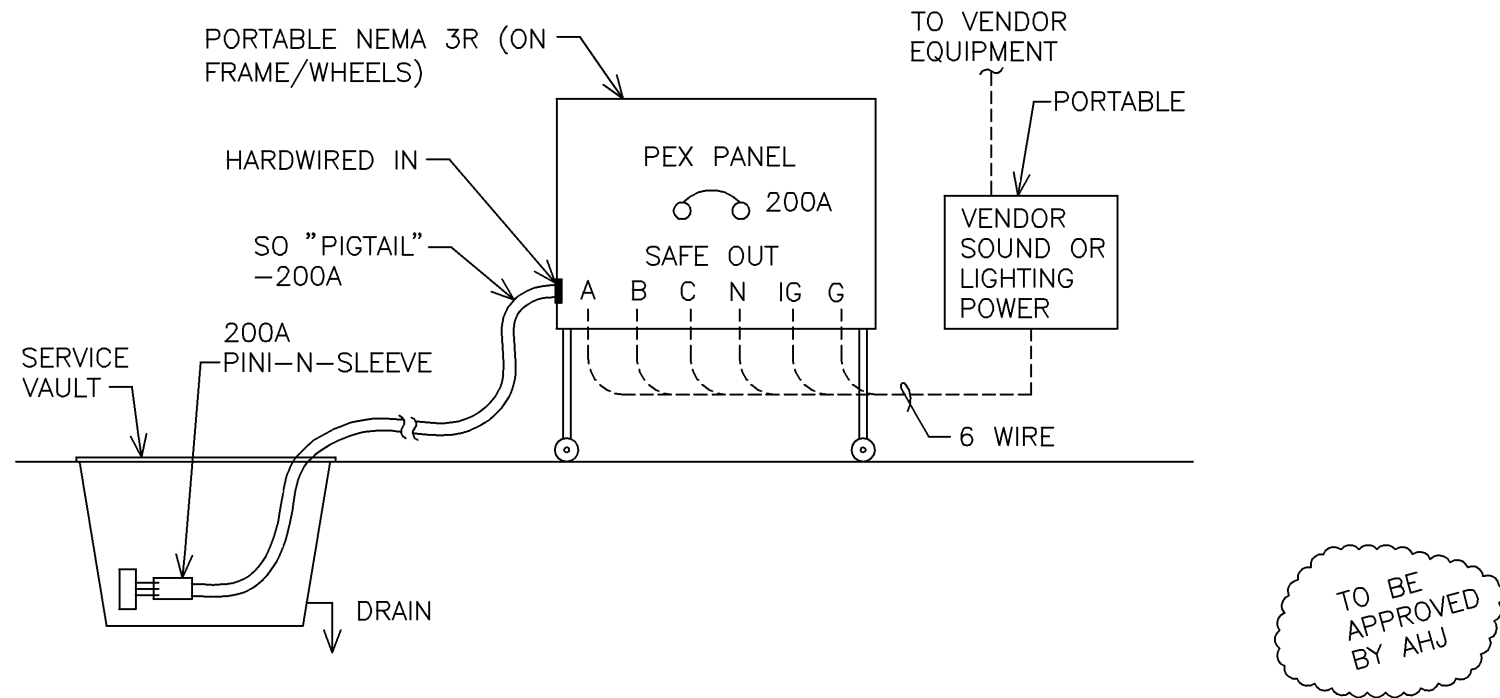


RESTROOM LIGHTING PLAN
SCALE: 1/4"=1'-0"

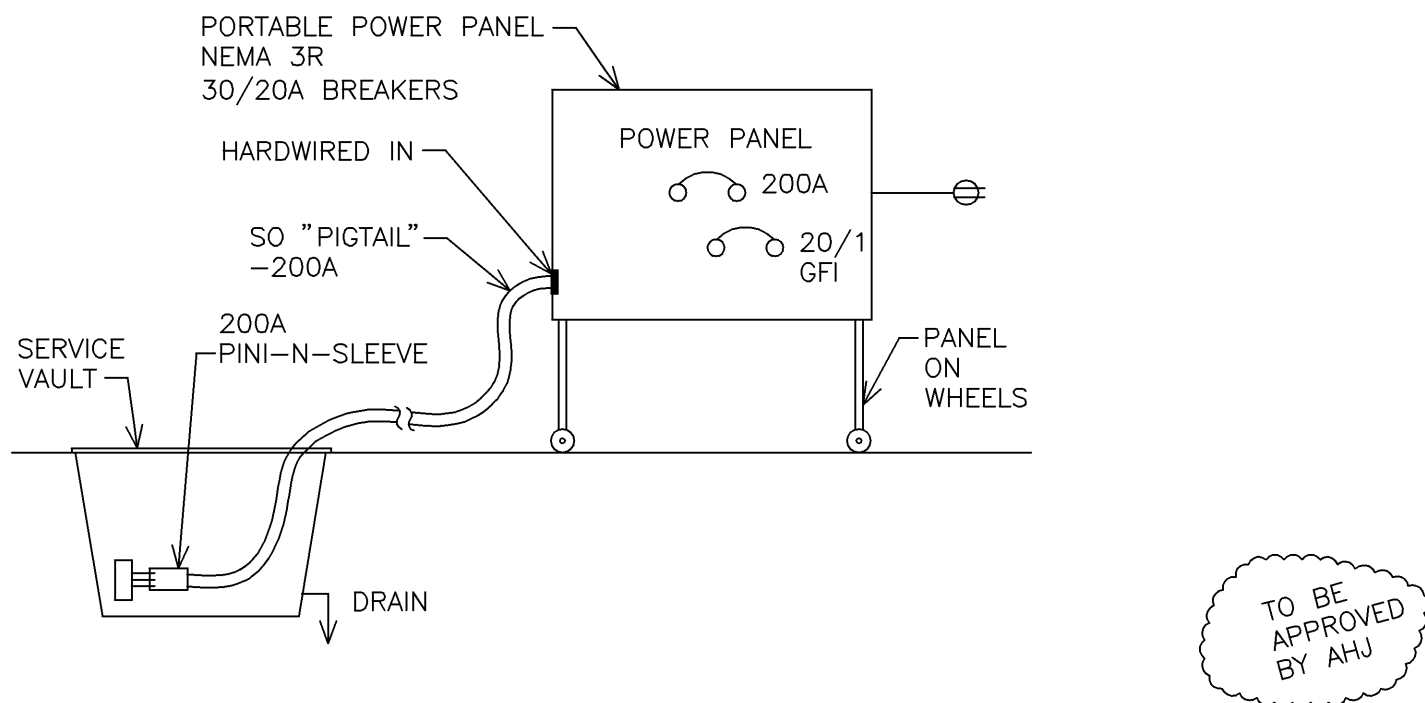


RESTROOM POWER/SIGNAL PLAN
SCALE: 1/4"=1'-0"

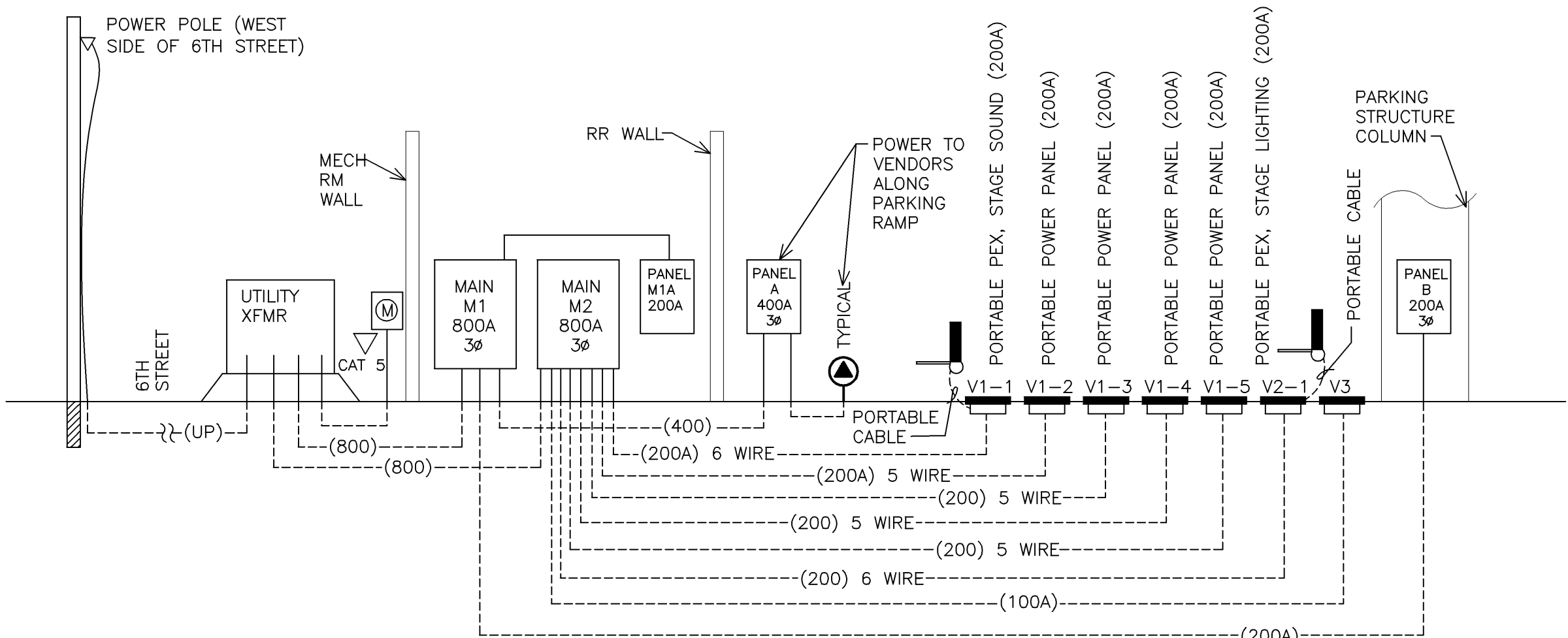
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SERVICE VAULT INTERFACE DIAGRAM TO
VENDOR POWER (PEX) (TYPICAL - SOUND & LIGHTING)
SCALE: NTS



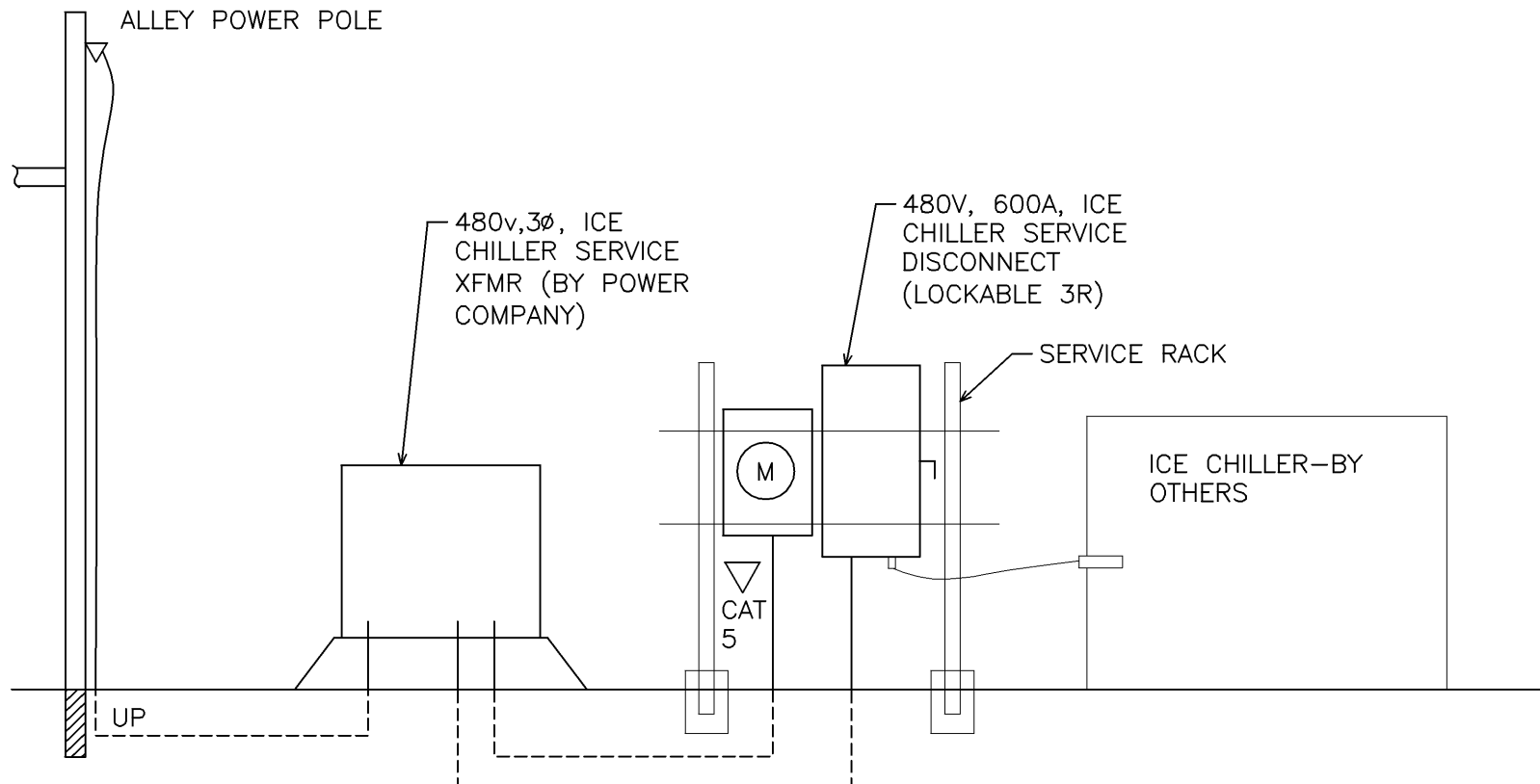
SERVICE VAULT INTERFACE DIAGRAM TO TENT
VENDORS (PEX) (TYPICAL - VENDOR POWER PANELS)
SCALE: NTS



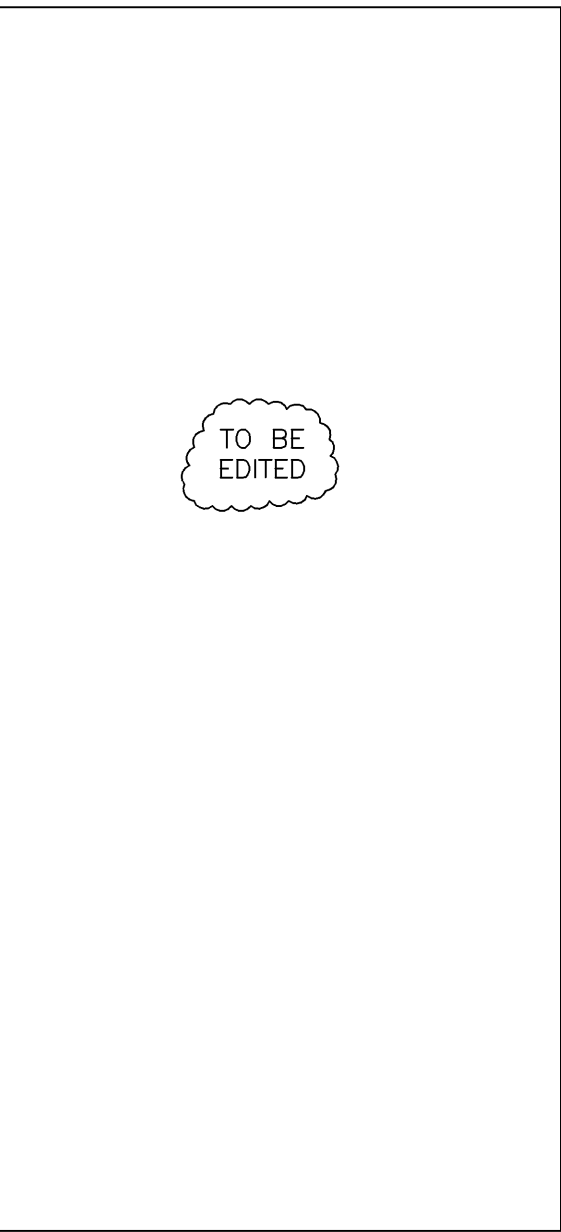
208V ELECTRICAL SERVICE RISER
SCALE: NTS

LIGHTING FIXTURE SCHEDULE							
FIXTURE LETTER TYPE	FIXTURE TYPE (DESCRIPTION)	VOLTS	MOUNTING	LAMPS	CONTROL MEDIA (LENS, LOUVERS, ETC.)	MANUFACTURERS' CATALOG NUMBERS	REMARKS
EP	EXISTING PARKING LED	120V	SURFACE W/ BIRDSCREEN	LED	POLYCARBONATE	????	--
PC	CYLINDER STREETSCAPE -LIGHT, LIGHT, SPEAKER CAMERA	120V	POLE	(2)xW LED?	LOUVERS	SCHREDER GROUP GIE - MODULLUM	--
PT	CYLINDER STREETSCAPE ROOFTOP -LIGHT, LIGHT SPEAKER, SPEAKER	120V	POLE	(1)xW LED? (1)150W MH; ARC	LOUVERS	SCHREDER GROUP GIE - MODULLUM	--
SP1	STREETLIGHT	240V	ARCHITECTRUAL POLE	(1)400W MH (1)400W MH	TEARDRIP GLASS GLOBE	HALOPHANE-TEARDROP SERIES	
SP2	STREETLIGHT W/ PED CROSSWALK	240V	ARCHITECTRUAL POLE		TEARDRIP GLASS GLOBE	HALOPHANE-TEARDROP SERIES	
ST	STEPLIGHT	120V	SOME RECESSED	(1) 5W LED	N/A - 100% CUTOFF	GUARDCO 96 LINE	
WP	LED WALLPACK					GUARDCO 121 LINE	

NOTES:

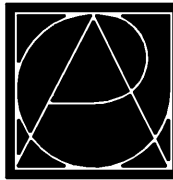


480V ELECTRICAL RISER
SCALE: NTS



DATA RACK
SCALE: NTS

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CERTIFICATION:	City #:	Project No.:	091131
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	Drawn by:	MMM	
	Checked by:	JBS	
	File:	e-flrpin.dwg	
	DRAWING #:		

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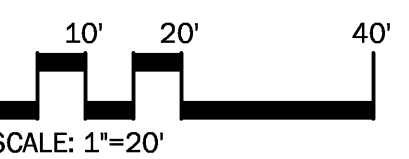
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Main Street Square Site Development Rapid City, South Dakota



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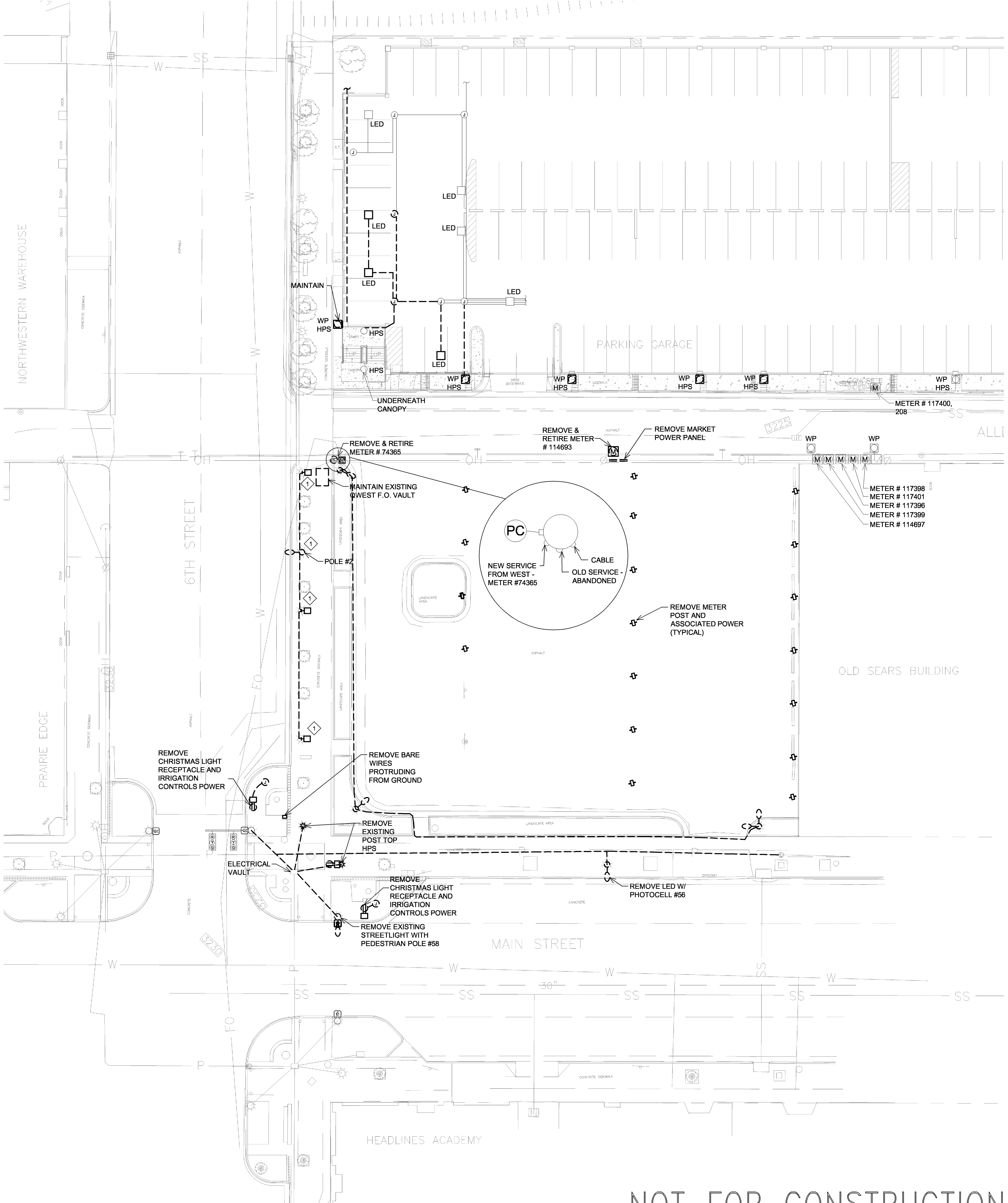
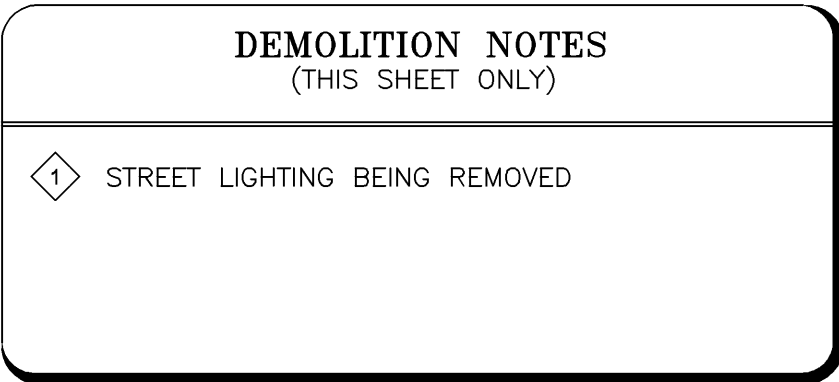
ELECTRICAL DEMO SITE PLAN

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 Project No.: 091131
 Date: June 23, 2010
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MECHANICAL ABBREVIATIONS			
AC	AIR COMPRESSOR	HTG	HEATING
AD	AREA DRAIN	HTR	HEATER
A.F.F.	ABOVE FINISHED FLOOR	HUM	HUMIDIFIER
AFMS	AIR FLOW MEASURING STATION	HVAC	HEATING, VENTILATING AND AIR CONDITIONING
AHU	AIR HANDLING UNIT	HWC	HEATING WATER CIRCULATING
ANB	ACID NEUTRALIZING BASIN	HX	HEAT EXCHANGER
AP	ACCESS PANEL	HYD	HYDRANT
ARCH	ARCHITECT	HW	HOT WATER
AS	AIR SEPARATOR	ICH	ICE CHILLER
BD	BUTTERFLY DAMPER	INSUL	INSULATION
B/G	BELOW GRADE	INV	INVERT
BFP	BOILER FEEDER PUMP	JP	JOCKEY PUMP
BLP	BOILER PUMP	KW	KILOWATT
BHW	BOILER – HOT WATER	LAT	LEAVING AIR TEMPERATURE
BST	BOILER – STEAM	LAV	LAVATORY
BTU	BRITISH THERMAL UNIT	LH	LIGHT HAZARD
BWV	BACKWATER VALVE	LWT	LEAVING WATER TEMPERATURE
CAF	COMBUSTION AIR FAN	MBH	BTU PER HOUR (THOUSANDS)
CAU	COMBUSTION AIR UNIT	MCF	THOUSAND CUBIC FEET
CCF	HUNDRED CUBIC FEET	MH	MANHOLE
CFH	CUBIC FEET PER HOUR	MUA	MAKE-UP AIR UNIT
CFM	CUBIC FEET PER MINUTE	NC	NOISE CRITERIA
CH	CHILLER	NC	NORMALLY CLOSED
CHP	CHILLER PUMP	NEG	NEGATIVE
CL	CENTER LINE	NIC	NOT IN CONTRACT
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NPW	NON-POTABLE WATER
CON	CONDENSER UNIT	NTS	NOT TO SCALE
CONTR	CONTRACTOR	OA	OUTSIDE AIR
CONV	CONVECTOR	OBD	OPPOSED BLADE DAMPER
CTW	COOLING TOWER	OH-1	ORDINARY HAZARD 1
CUH	CABINET UNIT HEATER	ORD	OVERFLOW ROOF DRAIN
CW	COLD WATER	PA	PRIMARY AIR
CWC	COOLING WATER COIL	PAC	PNEUMATIC AIR COMPRESSOR
CWP	CHILLED WATER PUMP	PCP	PRIMARY COOLING PUMP
DB	DECIBEL	PD	PRESSURE DROP OR DIFFERENCE
DBC	DESICCANT BASED COOLING	PE	PNEUMATIC-ELECTRIC
DEF	DRYER EXHAUST FAN	PHP	PRIMARY HEATING PUMP
DFO	DRINKING FOUNTAIN	PLBG	PLUMBING
DIA	DIAMETER	PRV	PRESSURE REDUCING VALVE (or) POWER ROOF VENTILATOR
DIFF	DIFFUSER	PSIA	POUNDS/SQ INCH ABSOLUTE
DISCH	DISCHARGE	PSIG	POUNDS/SQ INCH GAUGE
DMP	DAMPER, GRAVITY	PVC	POLY VINYL CHLORIDE
DN	DOWN	RA	RETURN AIR
DR	DRAIN	RAD	RADIATION HEATER
DS	DOWNSPOUT	RCP	REINFORCED CONCRETE PIPE
DWG	DRAWING	RD	ROOF DRAIN
DWP	CIRCULATING WATER PUMP (DOMESTIC)	RECIRC	RECIRCULATING
(E)	EXISTING	REG	REGISTER
EA	EXHAUST AIR	RET	RETURN
EAT	ENTERING AIR TEMPERATURE	RF	RETURN FAN
EDH	ELECTRIC DUCT HEATER	RH	RELATIVE HUMIDITY
EDR	EQUIVALENT DIRECT RADIATION	RHT	REHEAT
EF	EXHAUST FAN	RHC	RE-HEAT COIL
EGN	EMERGENCY GENERATOR	RHW	RECIRCULATED HOT WATER
EJP	EJECTION PUMP (VACUUM WASTE SYS.)	RM	ROOM
ELP	ELECTRICAL LIGHTING PANEL	RPM	REVOLUTIONS PER MINUTE
ELV	ELEVATOR	RPZ	REDUCED ZONE BACKFLOW PREVENTER
EP	ELECTRIC-PNEUMATIC	RTU	ROOF TOP UNIT
ESB	ELECTRIC SWITCHBOARD	SA	SUPPLY AIR
EWV	ELECTRIC WATER COOLER	SAN	SANITARY
EWT	ENTERING WATER TEMPERATURE	SCFM	CFM, STANDARD CONDITIONS
EXH	EXHAUST	SCP	SECONDARY COOLING PUMP
EXP	EXPANSION	SD	SMOKE DAMPER
F	FAHRENHEIT	SF	SUPPLY (PRESSURIZATION) FAN
FAN	(EXHAUST, SUPPLY)	SHP	SECONDARY HEATING PUMP
FC	FLUID COOLER	SP	STATIC PRESSURE
FCU	FAN COIL UNIT	SPECS	SPECIFICATIONS
FCO	FLOOR CLEAN OUT	SUP	SUPPLY
FD	FIRE DAMPER OR FLOOR DRAIN	SQ	SQUARE
FHC	FIRE HOSE CABINET	ST	STORAGE TANK
FHR	FIRE HOSE RACK	STM	STEAM
FLR	FLOOR	TD	TEMPERATURE DIFFERENCE
FLEX	FLEXIBLE	TEMP	TEMPERATURE
FM	FIRE MAIN	TONS	TONS OF REFRIGERATION
FOP	FUEL OIL PUMP	T-STAT	THERMOSTAT
FP	FIRE PUMP	TYP	TYPICAL
FPM	FEET PER MINUTE	UB	UP-BLAST
FPS	FEET PER SECOND	UG	UNDERGROUND
FS	FLOOR SINK	UH	UNIT HEATER
FSP	FIRE SUPPRESSION PUMP	UNV	UNIT VENTILATOR
FT	FEET OR FOOT	UR	URINAL
F&T	FLOAT AND THERMOSTATIC	V	SANITARY VENT
FTG	FOOTING	VAV	VARIABLE AIR VOLUME
FTR	FINNED TUBE RADIATION	VD	VOLUME DAMPER
FUR	FURNACE (GAS, ELECTRIC)	VEL	VELOCITY
FV	FACE VELOCITY	VFD	VARIABLE FREQUENCY DRIVE
GA	GAUGE	VOL	VOLUME
GAL	GALLON	VP	VACUUM PUMP (VACUUM WASTE SYS.)
GCO	GRADE CLEANOUT	W	SANITARY WASTE
GDO	GARAGE DOOR OPENER	W/	WITH
GHP	GLYCOL HEATING PUMP	WAC	WINDOW AIR CONDITIONER
GP	GRINDER PUMP (VACUUM WASTE SYS.)	W/O	WITHOUT
GPH	GALLONS PER HOUR	WC	WATER CLOSET
GPM	GALLONS PER MINUTE	WCO	WALL CLEAN OUT
GR	GRILLE	WH	WALL HYDRANT (or) WATER HEATER
GWH	GAS WATER HEATER	WS	WATER SOFTENER
HB	HOSE BIBB	WTR	WATER
HD	HEAD		
HOA	HAND-OFF-AUTOMATIC		
HRU	HEAT RECOVERY UNIT		

MECHANICAL SYMBOLS LEGEND			
MECHANICAL PIPING			
	DOMESTIC COLD WATER		ELBOW DOWN
	DOMESTIC HOT WATER		CLEANOUT
	RECIRCULATING HOT WATER		PIPE CAP
	COLD WATER LOW PRESSURE		ELBOW UP
	HIGH PRESSURE COLD WATER		TEE, OUTLET UP
	HIGH PRESSURE HOT WATER		TEE, OUTLET DOWN
	SOFTENED COLD WATER		CONNECTION, BOTTOM
	SOFTENED HOT WATER		ECCENTRIC REDUCER
	DOMESTIC HOT WATER (TEMP. INDICATED)		CONCENTRIC REDUCER
	RECIRCULATING HOT WATER		FLEXIBLE CONNECTION
	REVERSE OSMOSIS WATER		EXPANSION JOINT
	DEIONIZED WATER SUPPLY		PIPE ANCHOR
	DEIONIZED WATER RETURN		ALIGNMENT GUIDE
	CHILLED WATER SUPPLY		CHECK VALVE
	CHILLED WATER RETURN		SHUTOFF VALVE
	ENERGY PLANT HEATING WATER SUPPLY		PLUG VALVE
	ENERGY PLANT HEATING WATER RETURN		BALANCING VALVE
	LOW TEMPERATURE HEATING WATER SUPPLY		STRAINER
	LOW TEMPERATURE HEATING WATER RETURN		STRAINER W/BLOWDOWN VALVE AND CAP
	HEATING WATER SUPPLY		PRESSURE REDUCING VALVE (SETTING AS NOTED, PSI)
	HEATING WATER RETURN		AUTOMATIC CONTROL VALVE, 2-WAY
	EXISTING PIPING TO REMAIN (LIGHT LINE)		AUTOMATIC CONTROL VALVE, 3-WAY
	BOILER FEED		AUTOMATIC AIR VENT
	STEAM (PRESSURE INDICATED)		MANUAL AIR VENT
	CONDENSATE (PRESSURE INDICATED)		PRESSURE RELIEF/SAFETY VALVE (SETTING AS NOTED, PSI)
	PUMPED CONDENSATE		HOSE END DRAIN VALVE
	RADIATION WATER SUPPLY		HOSE END GATE VALVE
	RADIATION WATER RETURN		HOSE END GLOBE VALVE
	ENGINE RADIATOR SUPPLY		BALL VALVE
	ENGINE RADIATOR RETURN		BUTTERFLY VALVE
	SNOW MELT SUPPLY		DIAPHRAGM VALVE
	SNOW MELT RETURN		GLOBE ANGLE VALVE
	FUEL OIL SUPPLY		O. S. & Y. VALVE
	FUEL OIL RETURN		REDUCED PRESSURE ZONE BACKFLOW PREVENTER
	FUEL OIL VENT		SOLENOID VALVE
	FUEL OIL FILL		FLOW LIMITING VALVE
	CONDENSATE DRAIN		REFRIGERANT SIGHT GLASS
	REFRIGERANT LIQUID		GLOBE VALVE
	REFRIGERANT SUCTION		GAS PRESSURE REGULATOR VALVE
	REFRIGERANT HOT GAS		BACKWATER VALVE
	LIQUEFIED PETROLEUM GAS		REFRIGERANT DRYER
	COMPRESSED AIR		FLOW DIRECTION
	HOUSE CLEANING VACUUM		FLOW DIRECTION WITH PITCH
	COMPRESSED AIR (PSI INDICATED)		DUPLEX STRAINER
	NATURAL GAS FIRM SERVICE (PSI INDICATED)		PIPE UNION
	NATURAL GAS INTERRUPTIBLE SERVICE (PSI INDICATED)		PIPE FLANGE
	MEDIUM PRESSURE NATURAL GAS		PUMP
	HIGH PRESSURE NATURAL GAS		FLOOR DRAIN
	SOIL DRAINAGE TILE		FLOOR SINK
	SANITARY WASTE – BELOW GRADE		WALL HYDRANT
	SANITARY WASTE – ABOVE GRADE		HOSE BIBB
	SANITARY VENT		FLOOR CLEANOUT
	ACID WASTE – BELOW GRADE		GRADE CLEANOUT
	ACID WASTE – ABOVE GRADE		WALL CLEANOUT
	ACID VENT – BELOW GRADE		GAS COCK VALVE
	ACID VENT – ABOVE GRADE		ROOF DRAIN
	LAB WASTE – BELOW GRADE		OVERFLOW ROOF DRAIN
	LAB WASTE – ABOVE GRADE		DRAIN ABOVE
	LAB VENT – BELOW GRADE		CURB STOP
	LAB VENT – ABOVE GRADE		CATCH BASIN
	GREASE WASTE – BELOW GRADE		MANHOLE
	GREASE WASTE – ABOVE GRADE		
	STORM DRAIN – BELOW GRADE		
	STORM DRAIN – ABOVE GRADE		
	OVERFLOW STORM DRAIN – BELOW GRADE		
	OVERFLOW STORM DRAIN – ABOVE GRADE		
	PRESSURE GAUGE W/ PIGTAIL & PETCOCK		
	THERMOMETER		
	PRESSURE GAUGE W/ PETCOCK		
	PRESSURE/TEMPERATURE TEST PORT		
	STEAM TRAP (TYPE INDICATED)		
	FLOW MEASURING STATION (FLOW INDICATED)		
	FLOW SWITCH		
	PRESSURE SWITCH		
	WATER HAMMER ARRESTER (PDI SIZING INDICATED)		
	THERMOMETER WELL		

FIRE PROTECTION		
	F	FIRE PROTECTION
	PIV	POST INDICATOR VALVE (PIV)
	FDV	FIRE HYDRANT WITH SHUTOFF VALVE
	FDV	RECESSED FIRE DEPT CABINET
	S	SURFACE MTD FIRE DEPT CABINET
	R	FIRE PROTECTION RISER
	U	UPRIGHT SPRINKLER HEAD W/GUARD
	P	PENDANT SPRINKLER HEAD
	U	UPRIGHT SPRINKLER HEAD
	U ₂	UPRIGHT HEAD SERVED OFF GLYCOL SYSTEM
	U ₁₀	SIDEWALL SPRINKLER HEAD
	U ₁₀	SIDEWALL SPRINKLER HEAD WITH GUARD
	U ₁₀	CONCEALED SPRINKLER HEAD
	U ₁₀	SEMI-RECESSED SPRINKLER HEAD
	U ₁₀	EXTENDED COVERAGE HEAD
	U ₁₀	EXTENDED COVERAGE SEMI-RECESSED HEAD
	U ₁₀	BUTTERFLY VALVE W/TAMPER SWITCH
	U ₁₀	DETECTOR CHECK W/BYPASS METER
	U ₁₀	GRADE FIRE DEPT CONNECTION
	U ₁₀	FLUSH FIRE DEPT CONNECTION
	U ₁₀	FIRE DEPT VALVE W/CAP AND CHAIN
	U ₁₀	O. S. & Y VALVE W/ TAMPER SWITCH
	U ₁₀	DRYPIPE VALVE
	U ₁₀	PREACTION VALVE

DUCTWORK	
	EXHAUST AIR
	RETURN AIR
	SUPPLY AIR
	STANDARD BRANCH, NO SPLITTER – SUPPLY FLOW TO RIGHT – RETURN/ EXHAUST FLOW TO LEFT
	BELLMOUTH WITH BALANCING DAMPER
	FLEXIBLE DUCT
	TURNING VANES
	FLEXIBLE CONNECTION
	MANUAL VOLUME DAMPER
	MOTORIZED DAMPER
	FIRE DAMPER & ACCESS PANEL
	SMOKE DAMPER & ACCESS PANEL
	COMBINATION FIRE/SMOKE DAMPER & ACCESS PANEL
	RETURN OR EXHAUST GRILLE OR REGISTER
	SUPPLY GRILLE OR REGISTER
	SUPPLY DUCT UP, POSITIVE PRESSURE
	RETURN DUCT UP, NEGATIVE PRESSURE
	EXHAUST DUCT UP, NEGATIVE PRESSURE
	SUPPLY DUCT DOWN, POSITIVE PRESSURE
	RETURN DUCT DOWN, NEGATIVE PRESSURE
	EXHAUST DUCT DOWN, NEGATIVE PRESSURE
	SUPPLY DIFFUSER/REGISTER BLANKOFF INDICATED DARK
	RETURN GRILLE/REGISTER
	EXHAUST GRILLE/REGISTER
	LINEAR DIFFUSER
	CONCENTRIC DUCT TRANSITION
	ECCENTRIC DUCT TRANSITION
	DUCT CONSTRUCTION PRESSURE CLASSIFICATION (INCHES WATER AS NOTED) "N" INDICATES NEGATIVE PRESSURE
	ROUND-TO-RECTANGULAR DUCT TRANSITION
	SUPPLY TROFFER
	VAV BOX (FAN POWERED, INDUCTION BOX W/ WATER HEATING COIL)
	VAV BOX W/ REHEAT COIL
	REHEAT COIL
	EXISTING DUCT TO REMAIN (LIGHT LINE)
	DUCT OFFSETS
CONTROLS	
	SMOKE DETECTOR
	THERMOSTAT SENSOR
	DUCT THERMOSTAT SENSOR
	SPACE TEMPERATURE SENSOR
	HUMIDISTAT OR SPACE R.H. SENSOR
	STATIC PRESSURE SENSOR
	DIFFERENTIAL PRESSURE SENSOR
	AQUA STAT
	OCCUPANCY SENSOR
ANNOTATION	
	DETAIL NUMBER
	SHEET NUMBER
	SECTION NUMBER
	SHEET NUMBER
	POINT OF CONNECTION, NEW TO EXISTING
	POINT OF DISCONNECTION
	DIFFUSER, REGISTER, GRILLE DESIGNATION CFM FLOW
	EQUIPMENT DESIGNATION
	EQUIPMENT NUMBER
	---VAV, FAV, FCU DESIGNATION
	---INDIVIDUAL DESIGNATION
	---RADIANT HEATER DESIGNATION
	---EQUIPMENT NUMBER

SHEET INDEX	
M0.00	MECHANICAL LEGEND AND SHEET INDEX
M1.00	UNDER FLOOR PLUMBING PLAN
M1.10	MECHANICAL PIPING AND PLUMBING PLAN
M2.10	HVAC PLAN AND DETAILS
M3.10	MECHANICAL SITE PLAN
M4.00	MECHANICAL DETAILS AND PLUMBING RISERS
M5.00	MECHANICAL SCHEDULES
ME1.0	MECHANICAL/ELECTRICAL SCHEDULES

GENERAL NOTES	
1.	INSTALL VOLUME DAMPER IN DUCT TAKEOFF TO EACH DIFFUSER, GRILLE, AND REGISTER, UNLESS SAID DEVICE HAS AN INTEGRAL DAMPER.
2.	ALL DUCT TAKEOFFS TO BE HIGH EFFICIENCY TYPE UNLESS NOTED OTHERWISE.
3.	IN GENERAL, ALL PIPING AND DUCTWORK SHALL BE RUN CONCEALED IN SUSPENDED CEILING SPACES AND IN SHAFTS PROVIDED UNLESS NOTED OR INDICATED OTHERWISE.
4.	MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL SLEEVES AND/OR OPENINGS WHERE REQUIRED TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOOR SLABS, WALLS, BRIDGING AND BEAMS, EXCEPT WHERE OTHERWISE INDICATED. PENETRATION SEALANT RATING TO MATCH STRUCTURE RATING.
5.	VERIFY ALL DUCT CONNECTION SIZES TO FANS AND COILS.
6.	COOPERATE WITH THE OTHER TRADES TO ELIMINATE ANY CONFLICTS BETWEEN PIPING, DUCTWORK, STRUCTURAL, ELECTRICAL WORK, ETC. CONTRACTOR TO COORDINATE DUCTWORK WITH ALL TRADES AND DISCIPLINES TO ELIMINATE OBSTRUCTIONS (INCLUDING EXISTING CONDITIONS) TO ROUTING.
7.	DIFFUSER, REGISTER, AND SPRINKLER HEAD LOCATIONS SHALL BE COORDINATED WITH LIGHT FIXTURE LOCATIONS AND SHALL CORRESPOND WITH CEILING PATTERNS AS SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS.
8.	ALL SQUARE DIFFUSERS SHALL HAVE THE AIR VOLUME DIRECTED EQUALLY IN FOUR DIRECTIONS UNLESS INDICATED OTHERWISE.
9.	ALL DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS.
10.	IN GENERAL, PLUMBING, PIPING, AND DUCTWORK SYSTEMS ARE SHOWN IN SCHEMATIC FORM ONLY. CONTRACTOR SHALL PROVIDE OFFSETS AND TRANSITIONS TO FIT MECHANICAL SYSTEMS IN TO SPACE AVAILABLE.
11.	COORDINATE INTERRUPTION OF BUILDING SERVICES WITH OWNERS REPRESENTATIVE.
12.	CONTRACTOR SHALL USE ALUMINUM DUCTWORK FOR EXHAUST DUCTWORK IN SHOWER AREAS. EXTENT OF ALUMINUM DUCT SHALL BE FROM EXHAUST GRILLE, SERVING SHOWER AREA TO THE MAIN TRUNK DUCT. DUCT SHALL BE SLOPED TOWARDS EXHAUST GRILLE.
13.	CONTRACTOR TO VERIFY ADEQUATE RETURN AIR PATH IN ALL RETURN AIR PLENUMS.



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PROJECT:

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DRAWING NAME:

**UNDER FLOOR PLUMBING
PLAN**

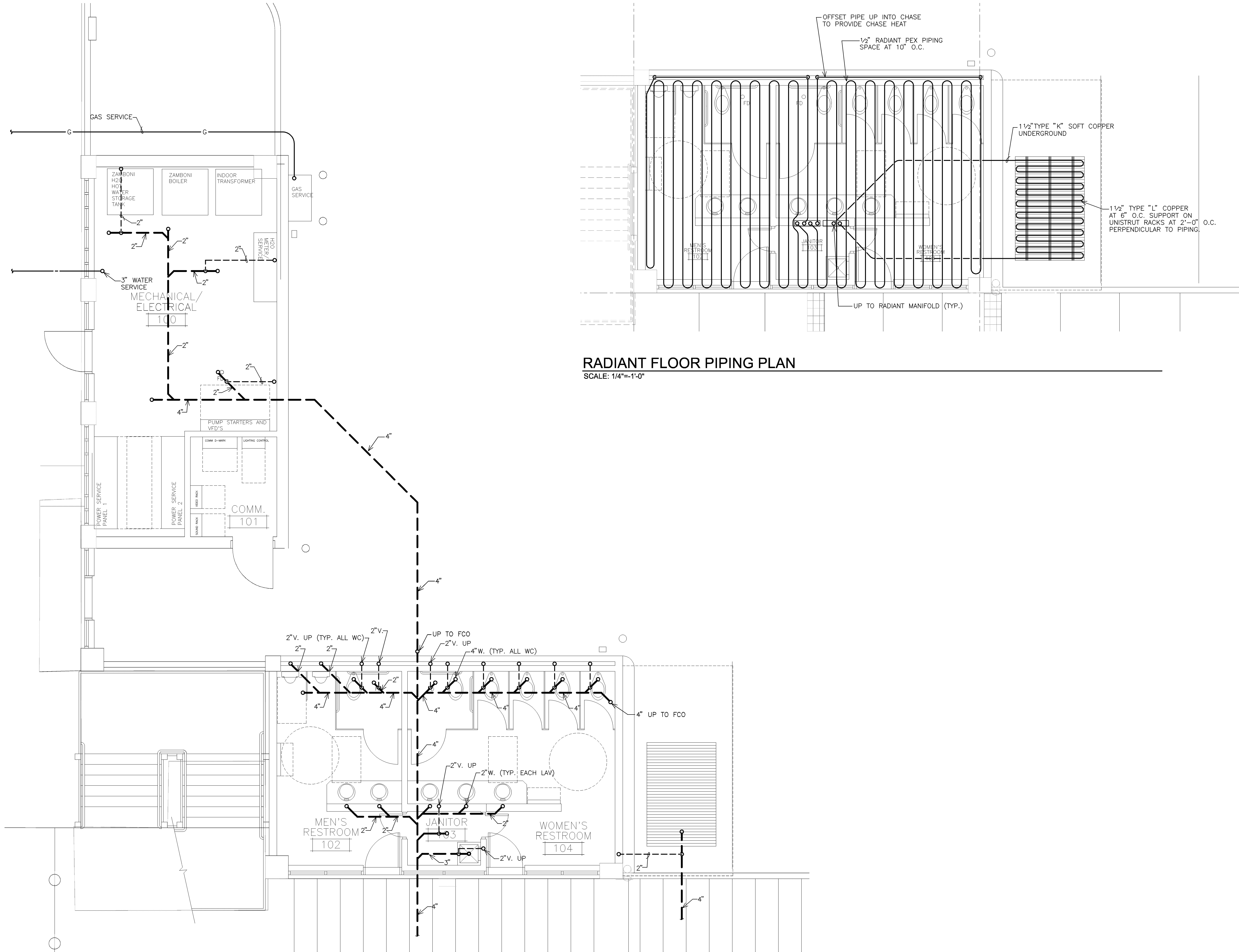
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UNDER FLOOR PLUMBING PLAN
SCALE: 1/4"=1'-0"

RADIANT FLOOR PIPING PLAN
SCALE: 1/4"=1'-0"

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DRAWING NAME: MECHANICAL PIPING AND PLUMBING PLAN

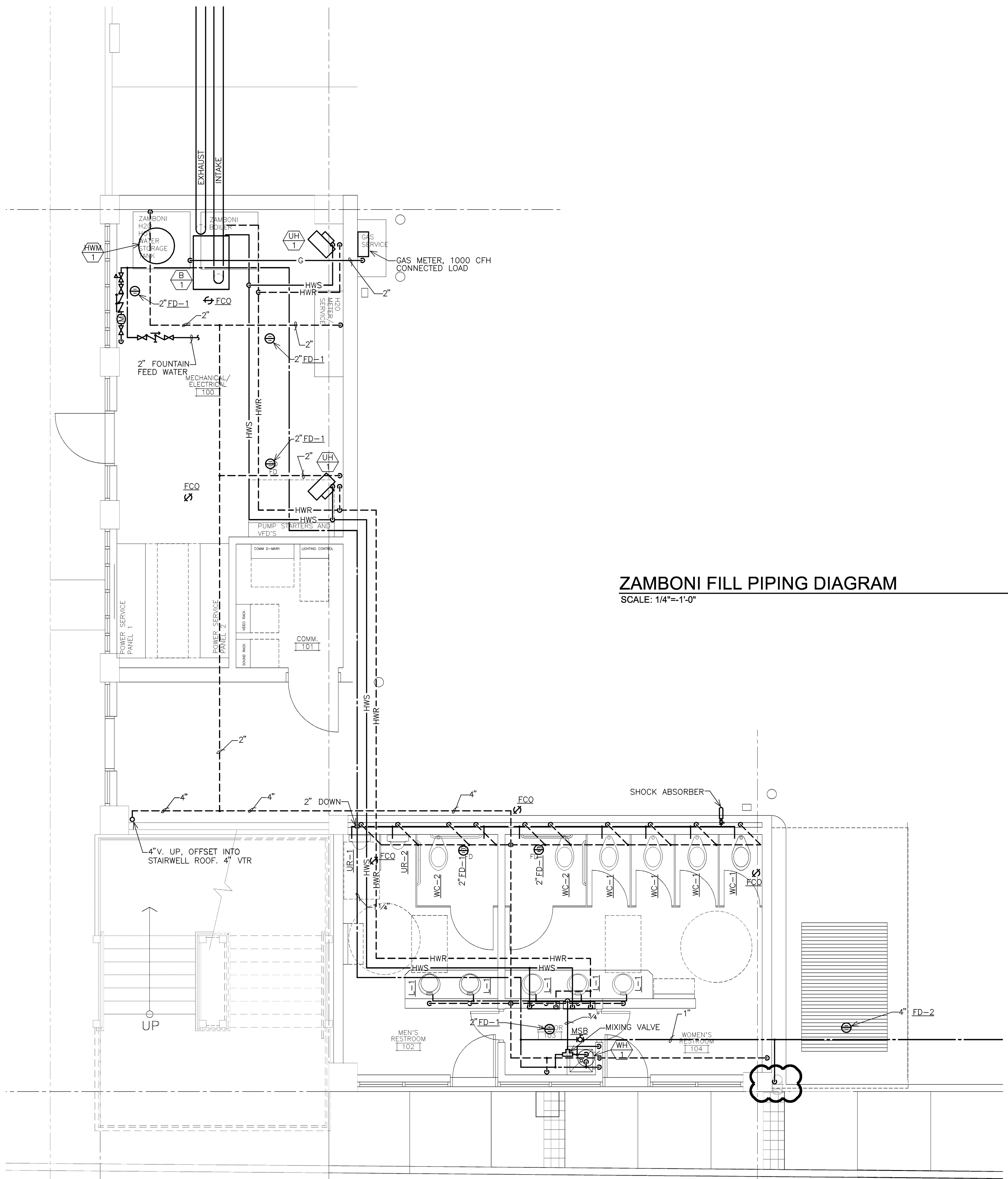
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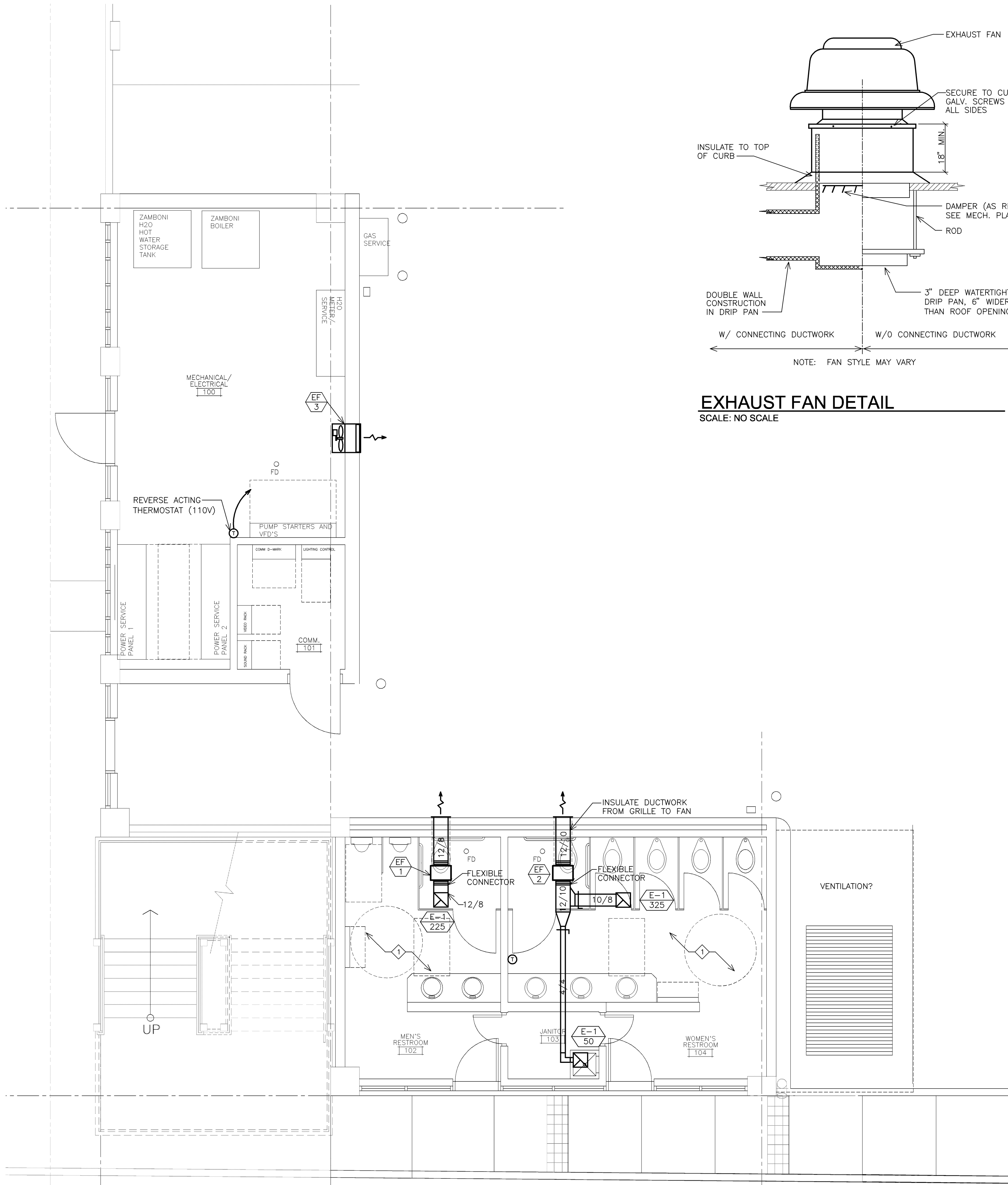
ZAMBONI FILL PIPING DIAGRAM

BOILER PIPING DIAGRAM

SCALE: 1/4"=-1'-0"

MECHANICAL PIPING AND PLUMBING PLAN

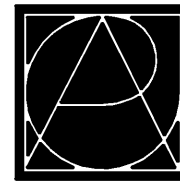
NOT FOR CONSTRUCTION



HVAC PLAN
SCALE: 1/4"=1'-0"

EXHAUST FAN DETAIL
SCALE: NO SCALE

DUCT TO EXHAUST
GRILLE CONNECTION DETAIL
SCALE: NO SCALE



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PROJECT:
**Main Street Square
Site Development
Rapid City, South Dakota**

REVISIONS:			
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HVAC PLAN

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Date: June 23, 2010
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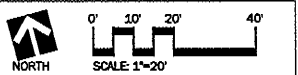
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PROJECT:

Main Street Square Site Development Rapid City, South Dakota



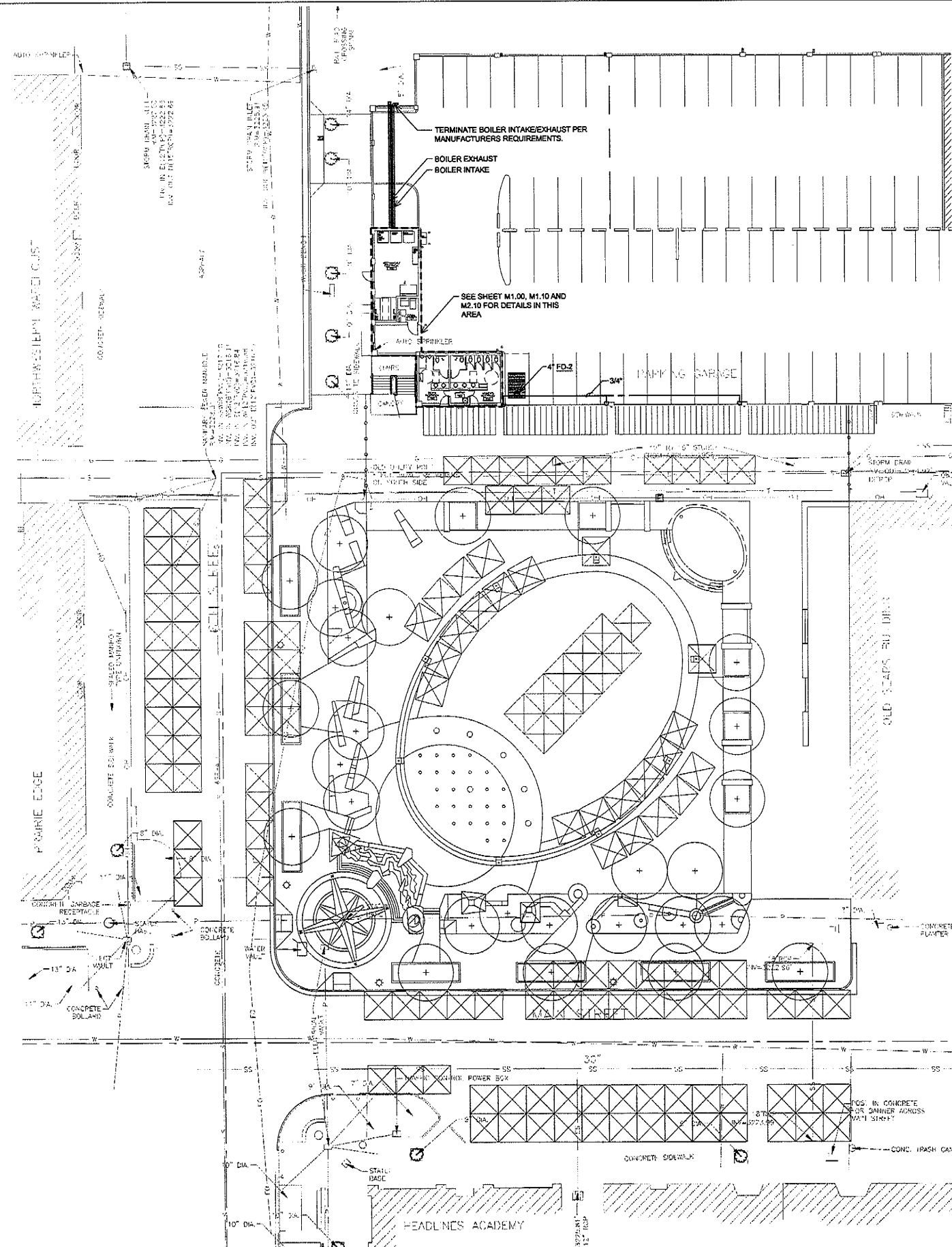
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MECHANICAL SITE PLAN

CERTIFICATION:	City #:
	Project No.: 091131
	Date: June 23, 2010
	Drawn by: AGA
	Checked by: GJK
	File: m-site.dwg
	DRAWING #:

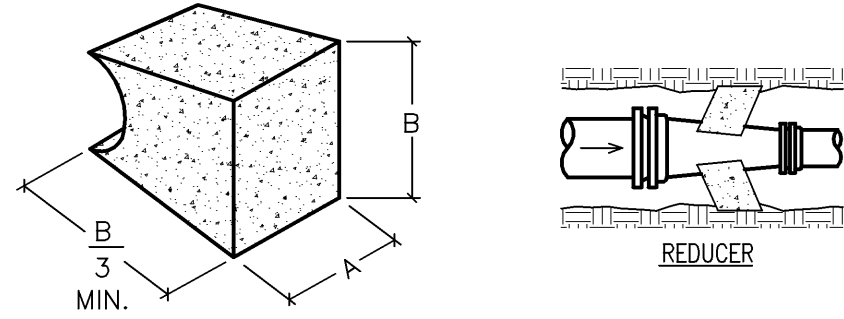
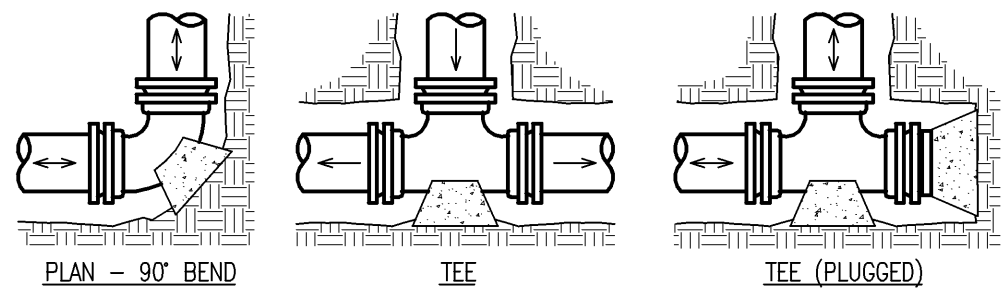
M3.10



MECHANICAL SITE PLAN

SCALE: 1"=20'

NOT FOR CONSTRUCTION

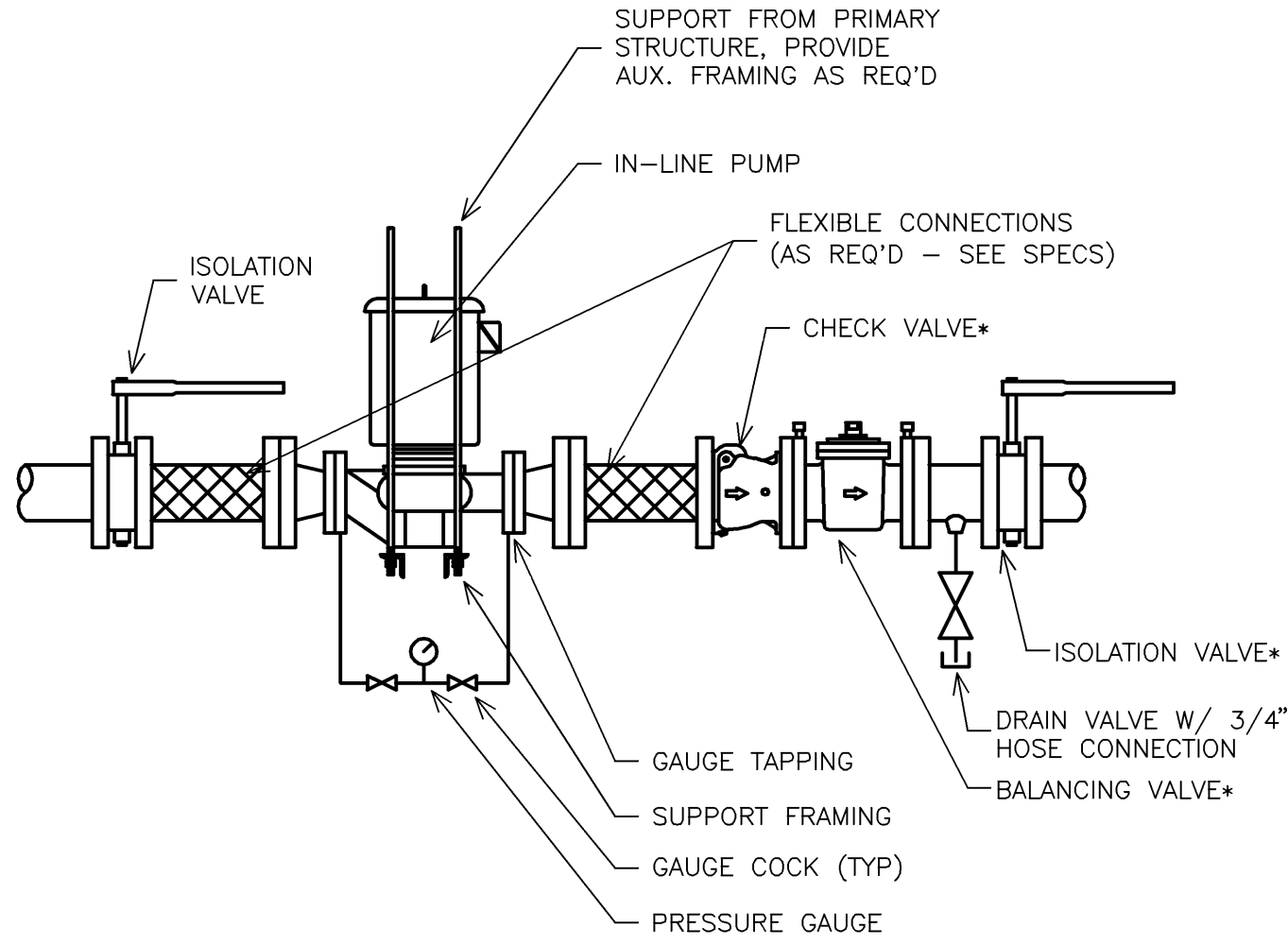


THRUST BLOCKING DIMENSIONS									
PIPE SIZE	TEES & PLUGS		90° BENDS		45° BENDS AND WYES		REDUCERS & 22-1/2° BEND		
	A	B	A	B	A	B	A	B	
3" & 4"	1'-10"	1'-5"	1'-10"	1'-6"	1'-8"	1'-0"	1'-7"	0'-6"	
6"	2'-3"	1'-11"	2'-8"	2'-4"	2'-0"	1'-8"	1'-9"	1'-0"	
8"	3'-0"	2'-6"	3'-6"	3'-2"	2'-8"	2'-3"	2'-0"	1'-6"	
10"	3'-8"	3'-3"	4'-4"	4'-0"	3'-3"	2'-10"	2'-5"	2'-0"	
12"	4'-3"	4'-0"	5'-1"	4'-10"	3'-10"	3'-6"	2'-9"	2'-6"	

- NOTES:
- THIS TABLE IS BASED ON 150 PSI MAIN PRESSURE AND 1500 PSF SOIL BEARING PRESSURE.
 - BEARING SURFACE SHALL BE UNDISTURBED SOIL OR COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY.

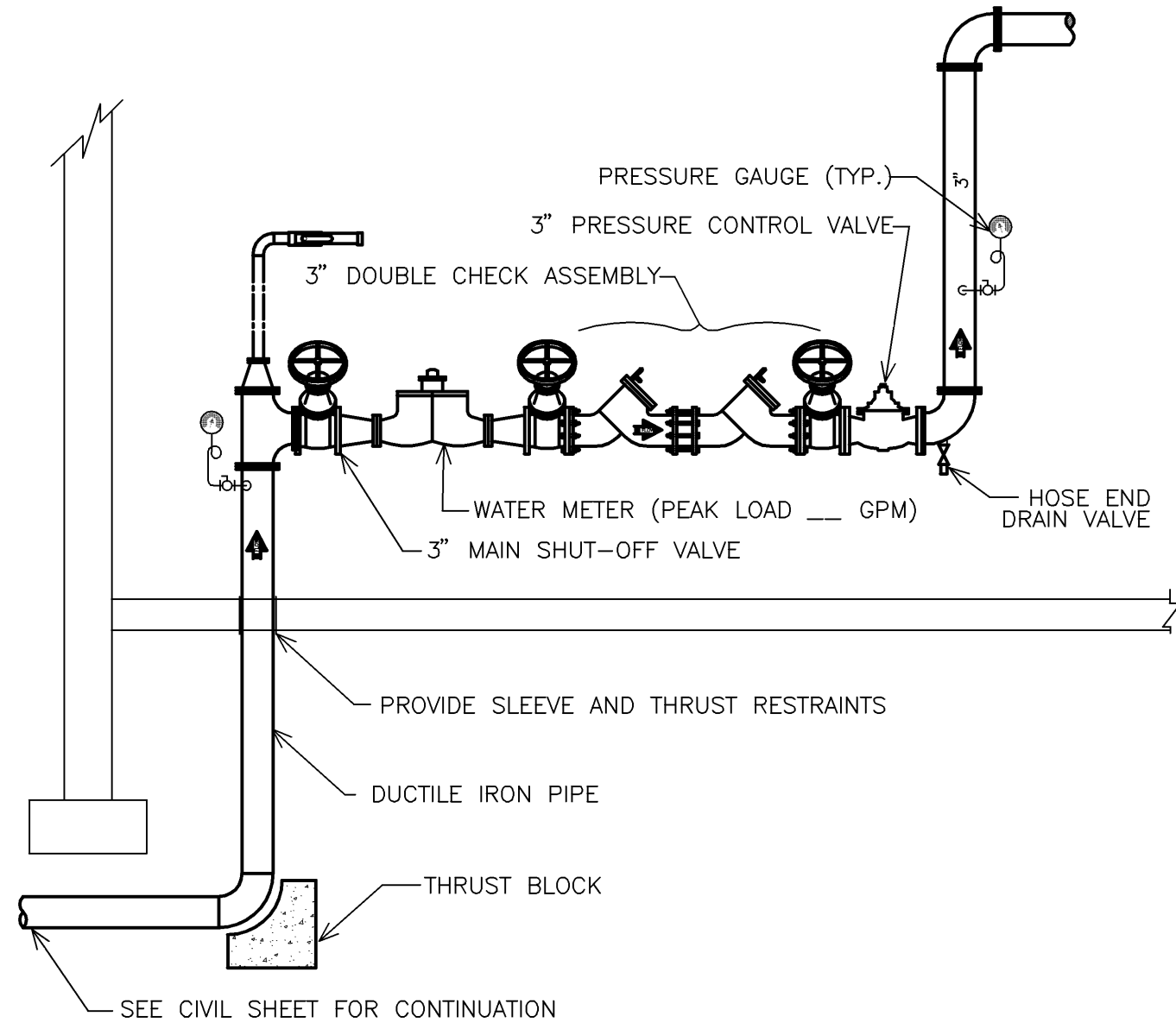
THRUST BLOCK DETAIL

SCALE: NO SCALE



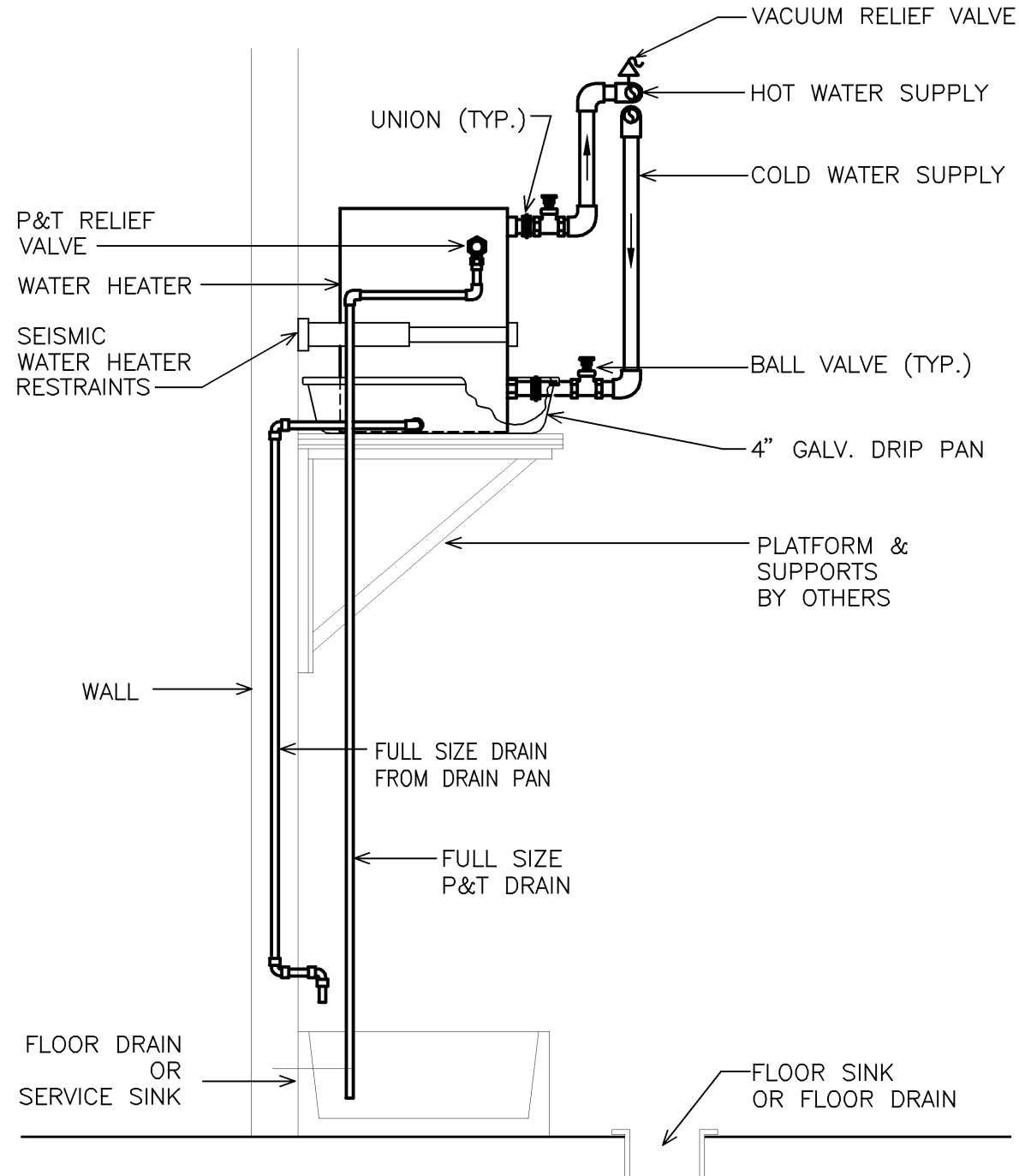
IN-LINE PUMP DETAIL

SCALE: NO SCALE



WATER SERVICE ENTRANCE DIAGRAM

SCALE: NO SCALE



ELECTRIC WATER HEATER DETAIL

SCALE: NO SCALE

WATER RISER DIAGRAM

SCALE: NO SCALE

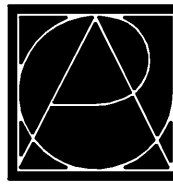
WASTE RISER DIAGRAM

SCALE: NO SCALE

MANIFOLD PIPING DIAGRAM

SCALE: NO SCALE

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PROJECT:

**Main Street Square
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DRAWING NAME:

MECHANICAL DETAILS AND PLUMBING RISERS

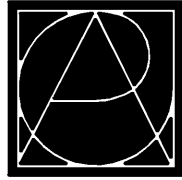
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MECHANICAL SCHEDULES

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INDIRECT FIRED WATER HEATER SCHEDULE															
EQUIP. NO.	LOCATION	BOILER REQUIREMENTS						PERFORMANCE			TANK SPECIFICATION		MANUF.	MODEL NO.	MECH. NOTES
		FLUID	FLOW (GPM)	EWT (°F)	LWT (°F)	PWD (PSI)	CONN. (IN)	RECOVERY GPH	90 DEG. F. RISE	CONN. (IN)	TANK VOLUME	MAX. WORKING TEMP. (°F)			
HWM-1	MECH. ROOM	30% GLYCOL	18	180	150	--	--	479		--	120	--	AMTROL	WHS-120ZC	--

MECH. NOTES:

--

--

AIR SEPARATOR SCHEDULE											
EQUIP NO.	SERVICE	LOCATION	FLOW (GPM)	MAX. FLOW (GPM)	CONN. SIZE (IN)	PRESS. DROP (PSI)	AIR REMOVAL PERCENTAGE	MANUF.	MODEL NO.	MECH. NOTES	
AS-1	XXX XXX	XXX XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

EXPANSION TANK SCHEDULE											
EQUIP. NO.	TYPE	FLUID	MAX. TEMP. (°F)	MIN. TEMP. (°F)	STATIC FILL PRESS. (PSI) (AT 70°F)	MAX PRESS. (PSI)	TANK DESIGN PRESS. (PSI) (ASME VIII)	SYSTEM VOL. (GAL)	EXPANSION VOL. (GAL)	MANUF.	MODEL NO.
ET-1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

PLUMBING FIXTURE SCHEDULE										
FIXTURE NO	TYPE	WASTE (IN)	TRAP (IN)	VENT (IN)	CW (IN)	HW (IN)	TRIM	MANUF.	MODEL NO.	REMARKS
WC-1	FLOOR MOUNTED BACK SPUD FLUSH VALVE STAINLESS STEEL WATER CLOSET	4"	---	2"	1"	---	ZURN ZEMS6140AV * W/ ZEMS6199-BX17	ACORN	2120-W-3-ULF-HS-OFLC	PROVIDE BLACK OPEN FRONT SEAT
WC-2	(A.D.A.) FLOOR MOUNTED BACK SPUD FLUSH VALVE STAINLESS STEEL WATER CLOSET	4"	---	2"	1"	---	ZURN ZEMS6140AV * W/ ZEMS6199-BX17	ACORN	2120-W-3-ULF-ADA-HS-OFLC	PROVIDE BLACK OPEN FRONT SEAT
UR-1	WALL MOUNTED BACK SPUD FLUSH VALVE STAINLESS STEEL URINAL	2"	---	1-1/2"	3/4"	---	ZURN ZEMS6140AV * W/ ZEMS6199-BX17	ACORN	2158-W-1	PROVIDE CARRIER
UR-2	(A.D.A.) WALL MOUNTED BACK SPUD FLUSH VALVE STAINLESS STEEL URINAL	2"	---	1-1/2"	3/4"	---	ZURN ZEMS6140AV * W/ ZEMS6199-BX17	ACORN	2158-W-1	PROVIDE CARRIER, MOUNT URINAL PER ADA
L-1	LAVATORY -- UNDERMOUNT STAINLESS STEEL	1-1/2"	1-1/4"	1-1/2"	--	1/2" TEMPERED	ZURN ZEMS6140AV * W/ ZEMS6199-BX17	ELKAY	2158-W-1	PROVIDE SUPPLIES, STOPS, 17 GA. P-TRAP AND TRUE-BRO HANDI LAV TRAP GUARD
MSB	MOP SERVICE BASIN MOLDED STONE/FIBERGLASS	3"	3"	1-1/2"	1/2"	1/2"	MUSTEE 63.600A	MUSTEE	63M (24X24)	PROVIDE HOSE AND HOSE HOLDER, MOP HANGER, AND WALL GUARDS
DF	FREEZELESS DRINKING FOUNTAIN -- STONE AGGREGATE	1-1/2"	1-1/2"	1-1/2"	1/2"	---	--	HALSEY TAYLOR	4593FR	PROVIDE HANGER AND FREEZE RESISTANT VALVE PACKAGE
HB	HOSE BIB	---	---	---	3/4"	---	--	ZURN	---	---
WH-1	WALL HYDRANT	---	---	---	3/4"	---	--	WOODFORD	---	---
WH-2	FREEZELESS WALL HYDRANT	---	---	---	3/4"	---	--	WOODFORD	---	---
FD-1	FLOOR DRAIN	2"	2"	2"	---	---	--	ZURN	---	---
FD-2	ZAMBONI PIT FLOOR DRAIN WITH STAND PIPE	4"	4"	2"	---	---	--	ZURN	---	---

* PROVIDE LOW VOLTAGE TRANSFORMER.

DIFFUSER, REGISTER, AND GRILLE SCHEDULE												
EQUIP. NO.	SERVICE	TYPE	MOUNTING	NECK SIZE (IN)	PANEL SIZE (IN)	MAT'L	FLOW (CFM)	FINISH	MANUF.	MODEL	ACCESSORIES	MECH. NOTES
E-1	EXHAUST	--	--	--	24" x24"	STEEL	SEE DWGS	WHITE	--	--	---	--

GENERAL NOTES:

--PROVIDE ALL TRANSITIONS (SUCH AS SQUARE-TO-ROUND), AS REQUIRED FOR A COMPLETE INSTALLATION.

--PROVIDE BALANCE DAMPERS ON ALL DUCT MOUNTED GRILLES AND REGISTERS.

--COORDINATE REQUIRED FRAME TYPES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.

--ADJUST DIFFUSER PATTERN AS SHOWN ON DRAWINGS. WHERE NOT INDICATED, ADJUST TO FULLY DIFFUSE AIR OVER ENTIRE FLOOR AREA SERVED.

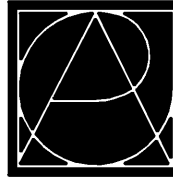
MECH. NOTES:

1. PROVIDE NECK-MOUNTED BALANCING DAMPER.

2. PROVIDE EQUALIZING GRID.

3. ---

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DRAWING NAME:

MECHANICAL/ELECTRICAL SCHEDULES

CERTIFICATION:

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City #:

Project No.: 091131

Date: June 23, 2010

Drawn by: AGA

Checked by: GJK

File: ME1.0.dwg

DRAWING #:

ME1.0

BOILER SCHEDULE																																	
GENERAL			MECHANICAL															ELECTRICAL															
EQUIP. NO.	LOCATION	SERVICE DESCRIPTION	TYPE	WORKING PRESS. (PSI) MAX	GROSS INPUT MBH	NET OUTPUT MBH	TURN DOWN RATIO	FLUE SIZE (IN DIA)	INLET CONN. (IN DIA)	OUTLET CONN. (IN DIA)	DRAIN (IN DIA)	TYPE	FUEL INLET PRESSURE (IN. W.C.)		MANUFACTURER	MODEL NO.	MECH. NOTES	HP OR LOAD	MCA/ MOCP	VOLTS	PHASE	CONTROLLER / STARTER				MOTOR DISCONNECT				POWER BY E.C. FEEDER		CIRCUIT #	ELEC. NOTES
													INLET CONN.	MAX MIN								LOCATION	TYPE	SIZE	BY	LOCATION	TYPE	SIZE	BY				
B-1	MECH. ROOM 100	ZAMBONI/ HEAT	GAS FIRE HI-EF. CAST IRON	100	1000	880	5:1	6"	3"	3"	*	NG	2"	*	*	HYDROTHERM	KN-10	*	8 AMPS	*	120	1	*	*	*	*	*	*	*	*	*	*	
MECH. NOTES: 1.																		ELEC. NOTES: 1.															

PUMP SCHEDULE																									
GENERAL			MECHANICAL								ELECTRICAL														
EQUIP. NO.	LOCATION	APPLICATION	TYPE	FLOW (GPM)	TOTAL DISCHARGE HEAD (FT)	MOTOR RPM	CONN SIZE (IN)	MANUFACTURER	MODEL NO	MECH. NOTES	HP OR LOAD	MCA/ MOCP	VOLTS	PHASE	CONTROLLER / STARTER				MOTOR DISCONNECT				POWER BY E.C.		ELEC. NOTES
															LOCATION	TYPE	SIZE	BY	LOCATION	TYPE	SIZE	BY	FEEDER	CIRCUIT #	
X	X	X	X	X	X	X	X	X	X	X															
X	X	X	X	X	X	X	X	X	X	X	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
X	X	X	X	X	X	X	X	X	X	X															
MECH. NOTES:											ELEC. NOTES:														

WATER HEATER SCHEDULE																									
GENERAL			MECHANICAL							ELECTRICAL															
EQUIP. NO.	LOCATION	APPLICATION	STORAGE CAPACITY	GPH RECOVERY	TEMP RISE (F)	NO. OF ELEMENTS	MANUFACTURER	MODEL NO.	MECH. NOTES	HP OR LOAD	MCA/MOCP	VOLTS	PHASE	CONTROLLER / STARTER				MOTOR DISCONNECT				POWER BY E.C.		ELEC. NOTES	
														LOCATION	TYPE	SIZE	BY	LOCATION	TYPE	SIZE	BY	FEEDER	CIRCUIT #		
WH	JANITOR CLOSET	LAVATORY DOM HW	15	23	80	1	A.O. SMITH	DEL-15	*	4.5 KW	*	208	1	*	*	*	*	*	*	*	*	*	*	*	
MECH. NOTES:										ELEC. NOTES:															

UNIT HEATER SCHEDULE																										
GENERAL			MECHANICAL										ELECTRICAL													
EQUIP. NO.	LOCATION	APPLICATION	TYPE	AIRFLOW (CFM)	MBH	HOT WATER DATA			MOTOR RPM	MANUFACTURER	MODEL NO.	MECH. NOTES	HP OR LOAD	VOLTS	PHASE	CONTROLLER / STARTER				MOTOR DISCONNECT				POWER BY E.C.		ELEC. NOTES
						FLOW (GPM)	AVG TEMP	WPD (FT)								LOCATION	TYPE	SIZE	BY	LOCATION	TYPE	SIZE	BY	FEEDER	CIRCUIT #	
UH-1	SEE PLANS	SPACE HEATING	HORIZONTAL	630	33.0	--	165	0.8	1550	MCQUAY	UH-33	1	1/12	120	1	AT UNIT	TSTAT	AS REQ'D	TC	AT UNIT	MRT	20/1	MC	---	---	---
MECH. NOTES: 1. PROVIDE WITH HANGER SUPPORT AND NEOPRENE VIBRATION ISOLATION PADS.													ELEC. NOTES: 1. E.C. TO COORDINATE CONTROLS CONDUIT AND BACKBOXES													

EXHAUST FAN SCHEDULE																										
GENERAL			MECHANICAL						ELECTRICAL																	
EQUIP. NO.	LOCATION	APPLICATION	TYPE	AIRFLOW CFM	EXT. SP (IN)	MANUFACTURER	MODEL NO.	MECH. NOTES	HP OR LOAD	MCA/ MOCP	VOLTS	PHASE	CONTROLLER / STARTER				MOTOR DISCONNECT				POWER BY E.C.		ELEC. NOTES			
													LOCATION	TYPE	SIZE	BY	LOCATION	TYPE	SIZE	BY	FEEDER	CIRCUIT #				
EF-1	MEN'S RESTROOM	GENERAL EXHAUST	IN-LINE BLOWER	225	0.25	COOK	GN-520	1	171W	*	120	1	AT UNIT	OS POWER PACK	AS REQ'D	EC	AT UNIT	MRT	20/1	EC	---	SEE PLAN	1			
EF-2	WOMEN'S RESTROOM	GENERAL EXHAUST	IN-LINE BLOWER	375	0.25	COOK	GN-520	1	171W	*	120	1	AT UNIT	OS POWER PACK	AS REQ'D	EC	AT UNIT	MRT	20/1	EC	---	SEE PLAN	1			
EF-3	MECH. ROOM	GENERAL EXHAUST	SIDEWALL PROP	--	0.25	COOK	--	--	--	*	120	1	AT UNIT	OS POWER PACK	AS REQ'D	EC	AT UNIT	MRT	20/1	EC	---	SEE PLAN	1			
MECH. NOTES: 1. PROVIDE WITH FAN SPEED CONTROLLER. FAN TO BE CONTROLLED BY RESTROOM OCCUPANCY SENSOR. ONCE EITHER RESTROOMS OCCUPANCY SENSOR DETECTS OCCUPANTS FAN SHALL START.									ELEC. NOTES: 1. SEE MECHANICAL NOTES FOR CONTROLS COORDINATION.																	

NOT FOR CONSTRUCTION