



HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

9250 Bendix Road

Columbia, Maryland 21045

410-313-2414

Thomas E. Butler, P.E., Deputy Director of Public Works
Engineering, Development and Construction
www.howardcountymd.gov

FAX 410-313-6144
TDD 410-313-2323

AS-BUILT / ORIGINAL

DRAWINGS TO BE

SCANNED

Bureau of Engineering, T&SP
9250 Bendix Road, Columbia, MD 21045
Ph. (410) 313-6143 Fax (410) 313-6141
name@howardcountymd.gov

DATE: APRIL 18, 2019

TO **Sheila Convery**
Transportation and Special Projects Division

We are sending the following:

- Plans Prints Specs Shop dwgs Other

Via:

- USPS Fed Ex UPS Courier Other

For Reason(s) Checked Below:

- For Your Approval As Requested Resubmit
 For Your Use Make Corrections Noted Return

CAP. PROJECT NO.	PROJECT NAME
N-3107	Rockburn Branch Park Maintenance Facility

ITEM NO.	DESCRIPTION	QUANTITY
1	Please have the attached as-built/ Original construction drawings scanned and added to the interactive map.	1 set

Remarks:

Kind Regards,

Abeye Girma

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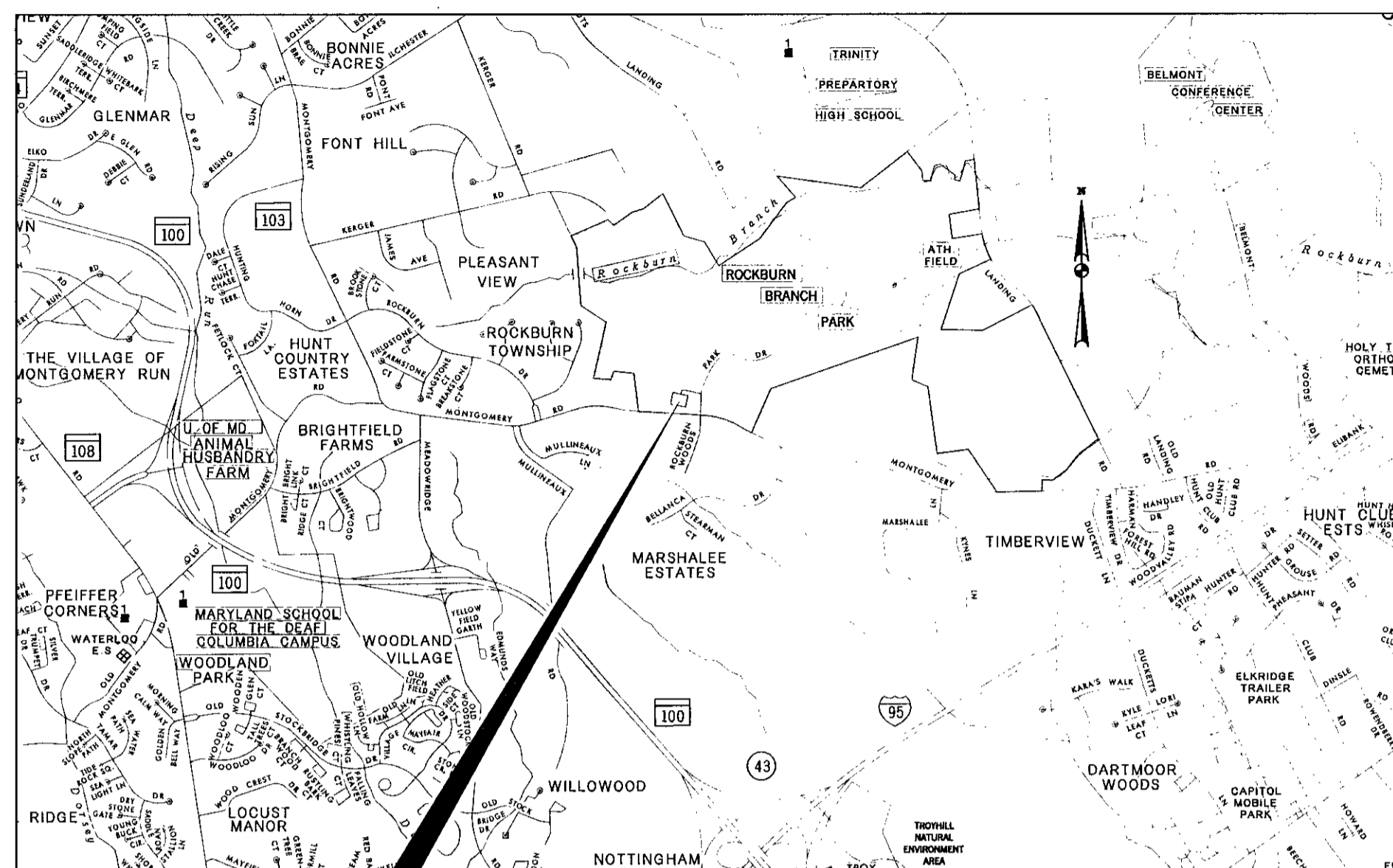
NOTE:
DRAWINGS C-7, C-9, C-10, C-11, C-12, C-13, C-14, AND C-17 ARE NOT INCLUDED AS PART OF THE PLAN SET.

GENERAL NOTES

- ALL INFORMATION AND DETAILS ON THESE DRAWINGS SHALL BE CONSTRUCTED AS PER THE PLANS OR AS DIRECTED BY THE HOWARD COUNTY ENGINEER.
 - ALL STATIONING AND DIMENSIONING ARE TO BE FIELD VERIFIED BY THE CONTRACTOR.
 - APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.

AT&T 1-800-252-4133
COMCAST 410-461-1362
BGE (CONTRACTOR SERVICES) 410-850-4620
BGE (UNDERGROUND DAMAGE CONTROL) 410-787-9068
MISS UTILITY 1-800-257-7777
HOWARD COUNTY BUREAU OF UTILITIES 410-313-4900
HOWARD COUNTY DIVISION OF CONSTRUCTION INSPECTION 410-313-1880
VERIZON - TELECOMMUNICATIONS 1-800-743-0033 / 410-224-9210
- THE CONTRACTOR SHALL CONTACT THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION OF ENGINEERING FOR VERIFICATION AND/OR INFORMATION REGARDING:
- PROPOSED/EXISTING RIGHT-OF-WAY
 - UTILITY RELOCATION
 - MAINTENANCE OF TRAFFIC DURING CONSTRUCTION
 - EROSION/SEDIMENT CONTROL CERTIFICATION AND PERMIT
 - HORIZONTAL/VERTICAL SURVEY CONTROL
 - GRADING PERMIT
- SEE HOWARD COUNTY STANDARD DETAILS NO'S G-1.01 AND G-1.02 FOR STANDARD SYMBOLS.
 - HORIZONTAL COORDINATES ARE BASED ON MD NAD 83/91 HORIZONTAL DATUM AND VERTICAL ELEVATIONS ARE BASED ON NAVD 1988 VERTICAL DATUM, TRANSFERRED FROM HOWARD COUNTY CONTROL STATIONS; 37BA AND 37BB.

37BA N 563,785.618 37BB N 563,663.415
E 1,376,343.172 E 1,378,040.471
ELEV. 394.786 ELEV. 373.822
 - A STAGING AND STOCKPILE AREA WILL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE HOWARD COUNTY ENGINEER.
 - SUPPLEMENTAL TOPOGRAPHY SURVEY INFORMATION BASED ON FIELD SURVEY PERFORMED BY JOHNSON, MIRMIRAN & THOMPSON DATED MAY, 2005 AND FEBRUARY, 2007.
 - ORIGINAL TOPOGRAPHY SURVEY PREPARED BY PROGRESSIVE ENGINEERING CONSULTANTS, INC. DATED JULY 2000.
 - PROFESSIONAL ENGINEERS SEAL PROVIDED BY JOHNSON, MIRMIRAN & THOMPSON IS ONLY FOR REVISIONS TO THE PLANS ORIGINALLY PREPARED AND SEALED BY OTHERS.
 - THESE PLANS REFLECT WORK THAT HAS ALREADY BEEN CONSTRUCTED AS WELL AS WORK TO BE CONSTRUCTED AS PART OF THIS CONTRACT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE BID BOOKLET TO DETERMINE THE ITEMS INCLUDED IN THIS CONTRACT.



SITE LOCATION
ROCKBURN BRANCH PARK
MAINTENANCE FACILITY
CAPITAL PROJECT NO. N-3107

CAPITAL PROJECT NO. N-3107

ROCKBURN BRANCH PARK MAINTENANCE FACILITY

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

PAVING LEGEND

	FULL DEPTH HMA PAVEMENT
	HMA PAVEMENT GRIND, WEDGE/LEVEL, & OVERLAY
	HMA PAVEMENT WEDGE/LEVEL & OVERLAY
	HMA PAVEMENT OVERLAY
	CONCRETE SIDEWALK

APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. Natural Resources Conservation Service Date

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District Date

See Sheets 13 and 14

FILE: A:\SW\2007\200707\Rockburn\Rockburn.dwg DATE: 04/19/07 10:48:47 AM

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve Shanon 7/5/07
DIRECTOR OF PUBLIC WORKS DATE
Steve Shanon 7/2/07
CHIEF, TRANSPORTATION AND SPECIAL PROJECTS DIVISION DATE
Paul J. Spain 7/2/07
CHIEF, BUREAU OF ENGINEERING DATE
Paul J. Spain 7/2/07
CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PARKS AND RECREATION
APPROVAL
Carol Byrd (acting) 7/3/07
DIRECTOR OF DEPARTMENT OF PARKS AND RECREATION DATE

JM/T
JOHNSON, MIRMIRAN & THOMPSON
Engineering • A Vision for the Future
72 Loveton Circle Baltimore, Maryland 21152-6949

STATE OF MARYLAND
DEPARTMENT OF PUBLIC WORKS
4-19-07

DES: SER				
DRN: CWV				
CHK: WRK				
DATE: 4/07				
BY: NO.				
DATE				

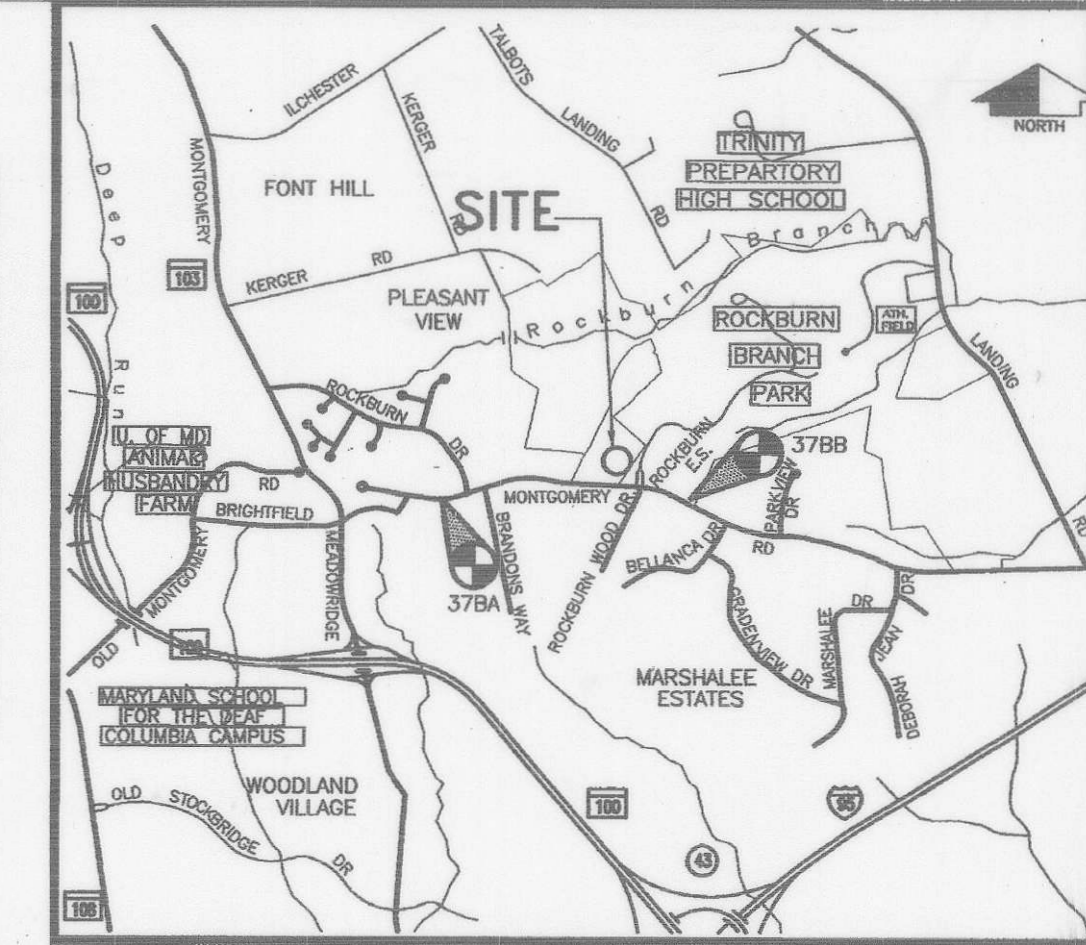
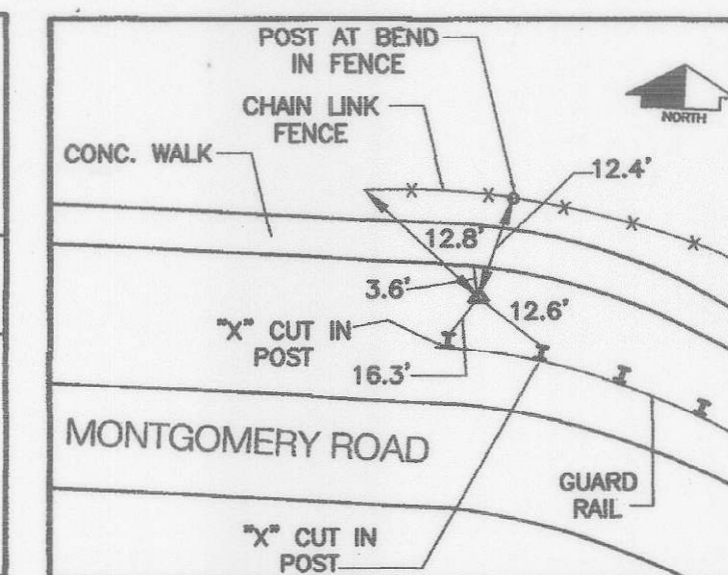
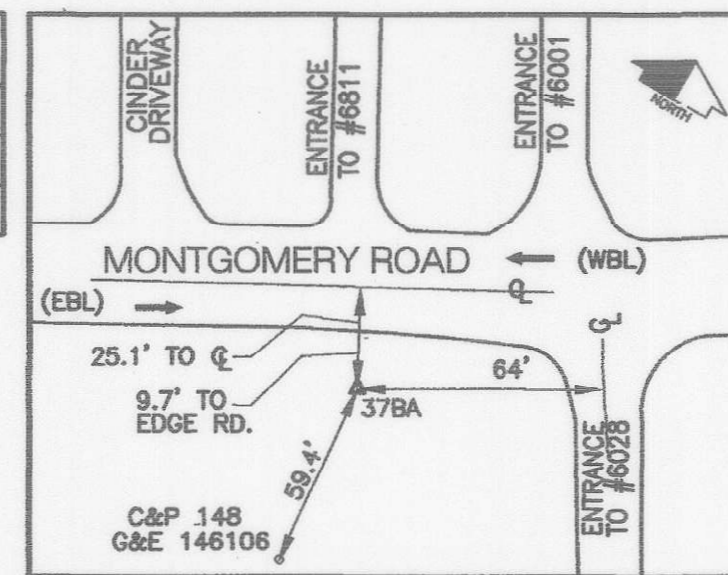
CAPITAL PROJECT NO.
N-3107

TITLE SHEET
**ROCKBURN BRANCH PARK
MAINTENANCE FACILITY**

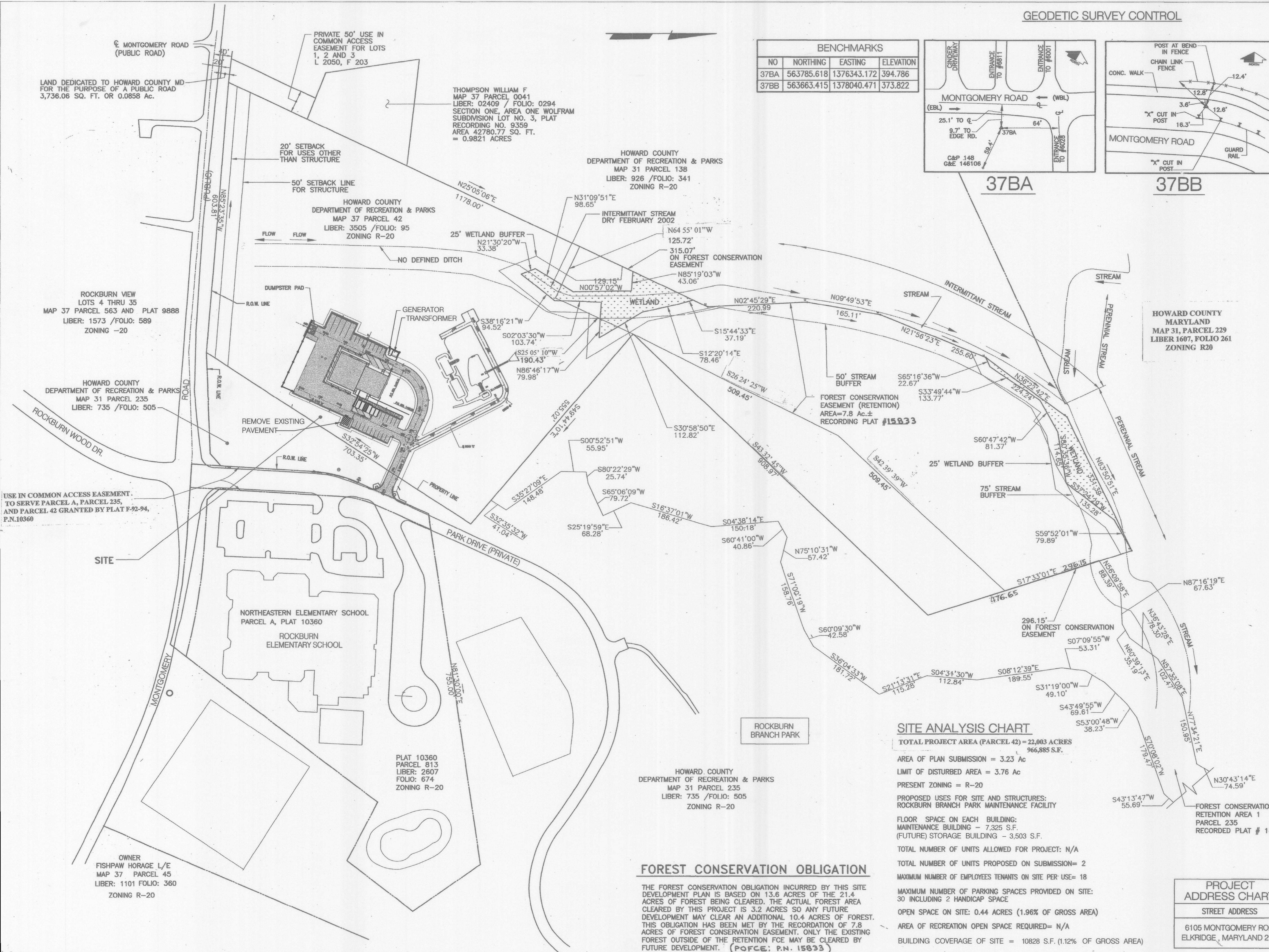
SCALE AS SHOWN
SHEET 1 OF 38

GEODETIC SURVEY CONTROL

BENCHMARKS			
NO	NORTHING	EASTING	ELEVATION
37BA	563785.618	1376343.172	394.786
37BB	563663.415	1378040.471	373.822



VICINITY MAP
SCALE: 1"=3000'
3000 0 3000 FEET



HOWARD COUNTY
MARYLAND
MAP 31, PARCEL 229
LIBER 1607, FOLIO 261
ZONING R20

SITE ANALYSIS CHART

TOTAL PROJECT AREA (PARCEL 42) = 22,003 ACRES
966,885 S.F.

AREA OF PLAN SUBMISSION = 3.23 Ac
LIMIT OF DISTURBED AREA = 3.76 Ac
PRESENT ZONING = R-20

PROPOSED USES FOR SITE AND STRUCTURES:
ROCKBURN BRANCH PARK MAINTENANCE FACILITY

FLOOR SPACE ON EACH BUILDING:
MAINTENANCE BUILDING - 7,325 S.F.
(FUTURE) STORAGE BUILDING - 3,503 S.F.

TOTAL NUMBER OF UNITS ALLOWED FOR PROJECT: N/A
TOTAL NUMBER OF UNITS PROPOSED ON SUBMISSION= 2
MAXIMUM NUMBER OF EMPLOYEES TENANTS ON SITE PER USE= 18
MAXIMUM NUMBER OF PARKING SPACES PROVIDED ON SITE:
30 INCLUDING 2 HANDICAP SPACE

OPEN SPACE ON SITE: 0.44 ACRES (1.96% OF GROSS AREA)
AREA OF RECREATION OPEN SPACE REQUIRED= N/A
BUILDING COVERAGE OF SITE = 10828 S.F. (1.12% OF GROSS AREA)

FOREST CONSERVATION OBLIGATION

THE FOREST CONSERVATION OBLIGATION INCURRED BY THIS SITE DEVELOPMENT PLAN IS BASED ON 13.6 ACRES OF THE 21.4 ACRES OF FOREST BEING CLEARED. THE ACTUAL FOREST AREA CLEARED BY THIS PROJECT IS 3.2 ACRES SO ANY FUTURE DEVELOPMENT MAY CLEAR AN ADDITIONAL 10.4 ACRES OF FOREST. THIS OBLIGATION HAS BEEN MET BY THE RECORDATION OF 7.8 ACRES OF FOREST CONSERVATION EASEMENT. ONLY THE EXISTING FOREST OUTSIDE OF THE RETENTION FCE MAY BE CLEARED BY FUTURE DEVELOPMENT. (POFCE, P.N. 15833)

STATE OF MARYLAND
WALTER R. KILBI
4-19-07

NOTE:
FOR GENERAL NOTES SEE SHEET C-3

APPROVED: DEPARTMENT OF PLANNING AND ZONING					
<i>Mark A. Coughlin</i>					3/21/07
Director (Acting)					Date
<i>Cindy Hanate</i>					3/19/07
Chief, Division of Land Development					Date
<i>Chris Damman</i>					3/12/07
Chief, Development Engineering Division					Date
SUBDIVISION	SECTION/AREA	N/A	PARCEL NO.	42	
LIBER/FOLIO	BLOCK NO	ZONING	TAX/MAP	GRID	ELEC. DIST.
3505/95	4	R-20	37	4	1
WATER CODE	D-04	SEWER CODE	2153800		

PROJECT ADDRESS CHART	
STREET ADDRESS	6105 MONTGOMERY ROAD ELKRIDGE, MARYLAND 21075

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
James Shole
DIRECTOR OF PUBLIC WORKS DATE: 2/20/07

DEPARTMENT OF RECREATION AND PARKS
APPROVAL
John Byrd
DIRECTOR, DEPT. OF RECREATION AND PARKS DATE: 2/20/07

ati Architects Engineers
and Construction Consultants
8950 Route 108 Suite 218
Columbia Maryland 21045 (410)995-4067/Fax(410)992-1837

PEC
PROGRESSIVE ENGINEERING
CONSULTANTS, INC.
ENGINEERS • PLANNERS • SURVEYORS
9160 RED BRANCH ROAD • SUITE E9
COLUMBIA, MD 21045
PHONE: (410) 715-0390 FAX: (410) 715-1745

OWNER
HOWARD COUNTY
DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA MD. 21046

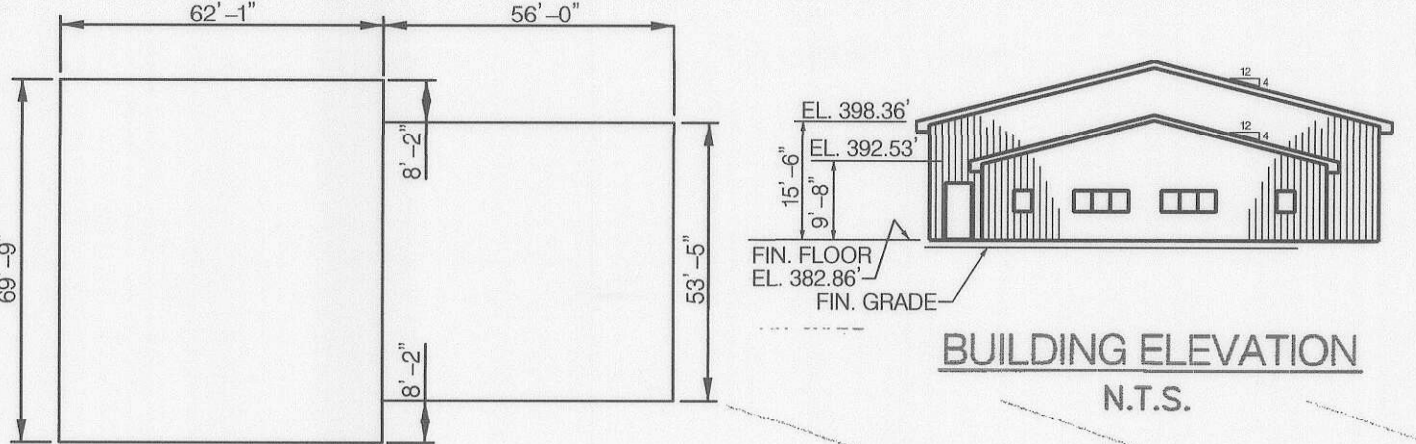
REVISIONS		
NO.	DATE	DESCRIPTION

OVERALL SITE PLAN
ROCKBURN BRANCH PARK
MAINTENANCE FACILITY
HOWARD COUNTY, MARYLAND
DATE: JANUARY 10, 2003 SCALE: 1"=100'
SET SHEET 2 OF 38

CAPITAL PROJECT NO.
 N-3107
C-1

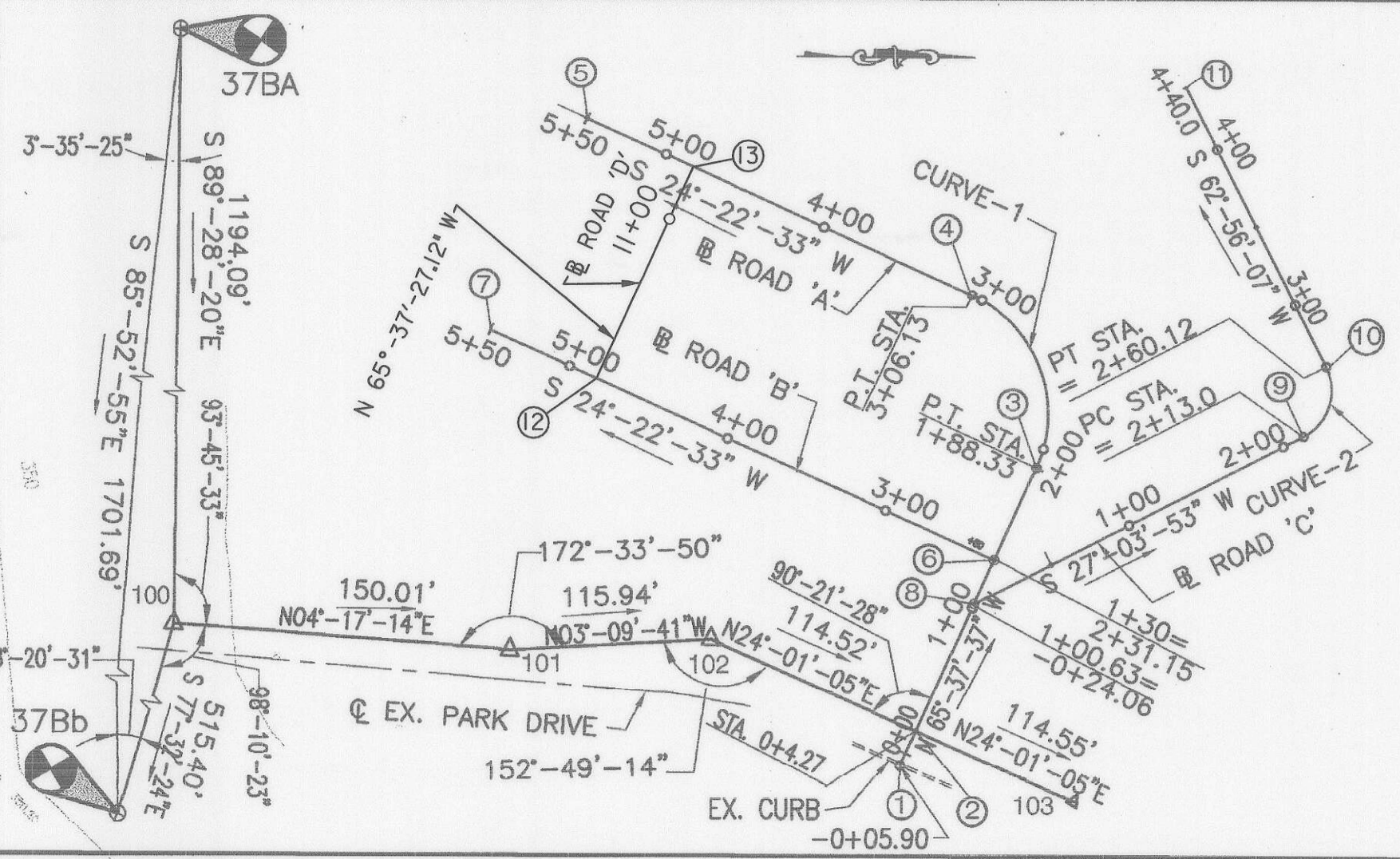
BASELINE STATION AND OFFSET							
NO	STA.	OFFSET	NO	STA.	OFFSET	NO	STA.
1	A	0+05.90	36.46' LT.	26	A	1+88.33	14.38' RT.
2	A	0+22.06	12.20' LT.	27	A	1+39.61	12.66' RT.
3	A	1+13.22	12.08' LT.	28	C	0+17.00	6.00' LT.
4	B	2+51.13	8.88' LT.	29	C	2+13	6.00' LT.
5	B	2+67.57	11.83' LT.	30	C	2+80.12	6.00' LT.
6	B	2+70.23	30.64' LT.	31	C	4+09.00	6.00' LT.
7	B	3+71.00	32.51' LT.	32	C	4+13	10.00' LT.
8	B	3+71.00	14.66' LT.	33	C	4+13	15.00' RT.
9	B	3+85.21	14.66' LT.	34	C	4+43	15.00' RT.
10	B	---	---	35	C	4+43	15.00' RT.
11	B	5+09.53	13.92' LT.	36	C	4+13	15.00' RT.
12	B	---	---	37	C	4+13	10.00' RT.
13	B	---	---	38	C	4+09	6.00' RT.
14	A	5+09.53	21.93' LT.	39	C	2+80.62	6.00' RT.
15	A	5+36.69	21.93' LT.	40	C	2+13	6.00' RT.
16	A	5+36.88	14.04' RT.	41	C	0+08.84	6.00' RT.
17	A	5+06.57	16.70' RT.	42	C	1+02.57	12.38' RT.
18	A	5+06.49	56.26' RT.	43	C	0+21.49	12.02' RT.
19	A	4+41.45	56.48' RT.	44	C	0+04.73	32.75' RT.
20	A	4+40.35	32.63' RT.	45	C	3+48	22.55' RT.
21	A	3+60.57	33.51' RT.	46	C	2+90.61	22.55' RT.
22	A	3+59.24	17.78' RT.	47	C	1+78.20	60.21' RT.
23	A	3+47.53	12.03' RT.	48	C	3+48	44.55' RT.
24	A	3+06.14	11.56' RT.	49	C	3+77.82	88.00' RT.

* SEE SHEET C-18 FOR ADDITIONAL PROPOSED PAVEMENT, SIDEWALK, AND GRADE STATION, OFFSET, AND ELEVATIONS.



PROPOSED 5'-0" GATE, MATCH HEIGHT OF FENCE SEE HOWARD COUNTY STD. G. 8.03 FOR DETAILS SEE SHEET C-5B FOR FENCE SCHEDULE

BENCHMARKS			
NO	NORTHING	EASTING	ELEVATION
37BA	563785.618	1376343.172	394.786
37BB	563663.415	1378040.471	373.822
102	564039.9705	1377542.0303	380.07
103	564248.9218	1377635.1398	387.50



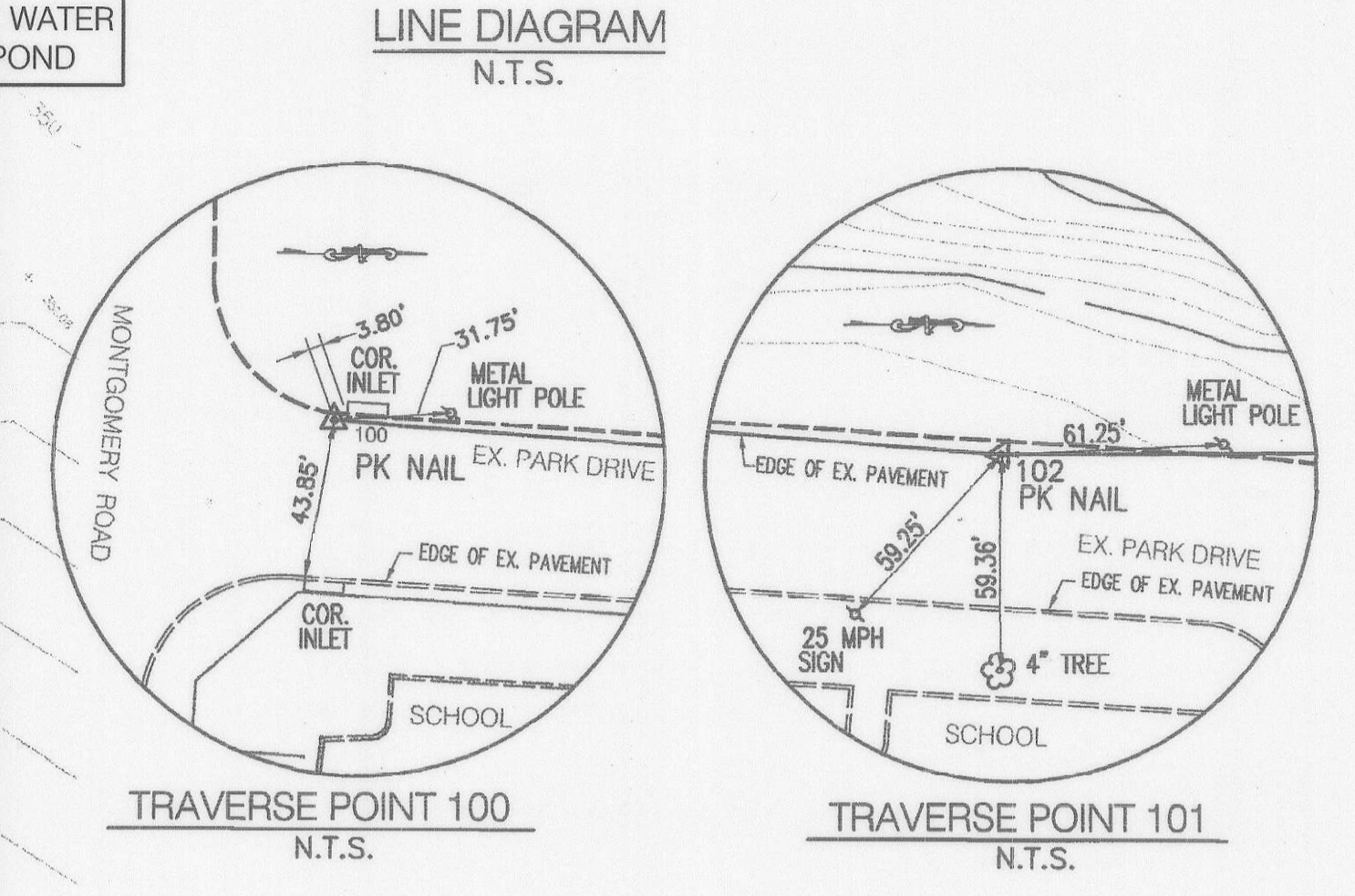
BASE LINE COORDINATES			
NO	NORTHING	EASTING	BASELINE
1	564140.0970	1377597.7763	
2	564144.2927	1377588.5167	ROAD 'A'
3	564220.2579	1377420.8641	
4	564182.8976	1377321.5957	ROAD 'B'
5	563960.7755	1377220.9497	
6	564196.1840	1377473.9944	ROAD 'C'
7	563888.9745	1377334.7943	
8	564184.0650	1377500.7406	
9	564395.1691	1377392.8767	
10	564408.2339	1377352.5119	
11	564325.0256	1377189.6622	
12	563967.6834	1377370.4582	
13	564022.7113	1377249.0135	ROAD 'D'

8' HIGH, BLACK VINYL CLAD. CHAIN LINK FENCE WITH BARBED WIRE @ TOP. SEE SCHEDULE AND DETAIL ON SHT. C-5B

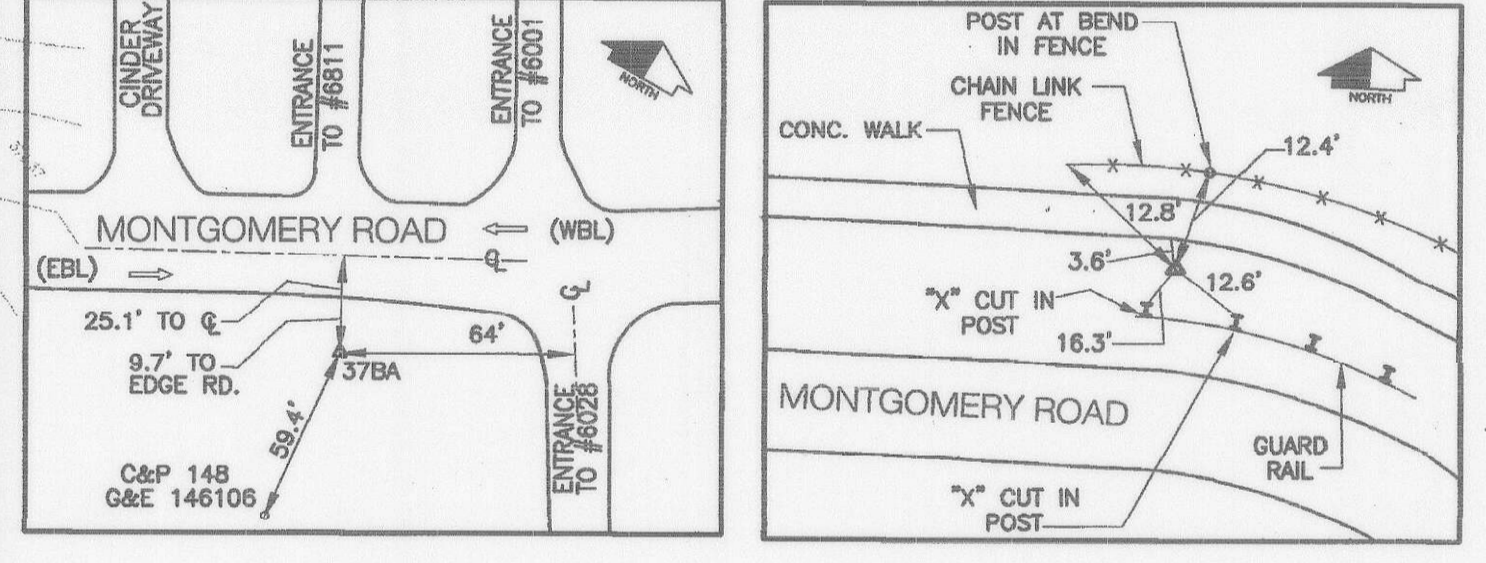
REMOVE EXISTING PAVEMENT REPLACE WITH COMMON BORROW, 2" TOPSOIL, SEED, AND MULCH

PROPOSED CANTILEVER GATE SEE SHEET C-5B FOR DETAILS AND FENCE SCHEDULE

MAINTENANCE SIGN TO BE CONSTRUCTED BY OTHERS. ELECTRIC CONDUIT TO BE RUN UNDER THIS CONTRACT. SEE SHEET E-0.



GEODETIC SURVEY CONTROL



TRAVERSE POINT			
NO	DESCRIPTION	NORTHING	EASTING
100	P.K. NAIL	563774.6173	1377537.2104
101	P.K. NAIL	563924.2077	1377548.4243
102	TOP OF S.M.	564039.9705	1377542.0303
103	TOP OF S.M.	564248.9218	1377635.1398

CURVE DATA			
CURVE-1		CURVE-2	
Δ	= 90°-00'-00"	Δ	= 90°-00'-00"
Dc	= 76°-23'-40"	Dc	= 190°-59'-09"
Rc	= 75.0	Rc	= 30.0
Lc	= 117.81	Lc	= 47.12
Tc	= 75.00	Tc	= 30.00
E	= 31.07	E	= 12.43

- LEGEND:
- EX. WOODS LINE
 - EX. CONTOUR LINE
 - EDGE OF PAVEMENT
 - CENTER LINE
 - TRAVERSE POINT
 - EX. FENCE
 - PROP. BUILDINGS
 - P-3 PAVEMENTS
 - PROP. LIGHT POLE
 - SOLID SODDING

PLAN SCALE: 1"=30'

NOTE: FOR GENERAL NOTES SEE DWG C-3

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director: *Mark A. Lyle* Date: 2/2/03

Chief, Division of Land Development: *Cindy Hannah* Date: 2/19/03

Chief, Development Engineering Division: *John J. ...* Date: 2/19/03

SUBDIVISION	ROCKBURN BRANCH PARK	SECTION/AREA	N/A	PARCEL NO.	42
LIBER/FOLIO	3505/95	BLOCK NO.	4	ZONING	R-20
TAX/MAP	37	GRID	4	ELEC. DIST.	1
CENSUS TR.	6011.01	SEWER CODE	2153800		

Walter R. Rubin
4-19-07

Architects Engineers and Construction Consultants
8950 Route 108 Suite 218
Columbia Maryland 21045 (410)995-4067 Fax (410)992-1837

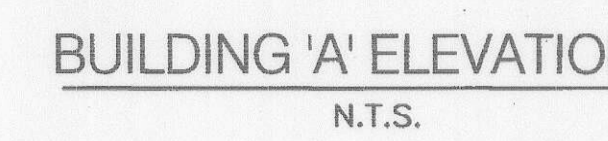
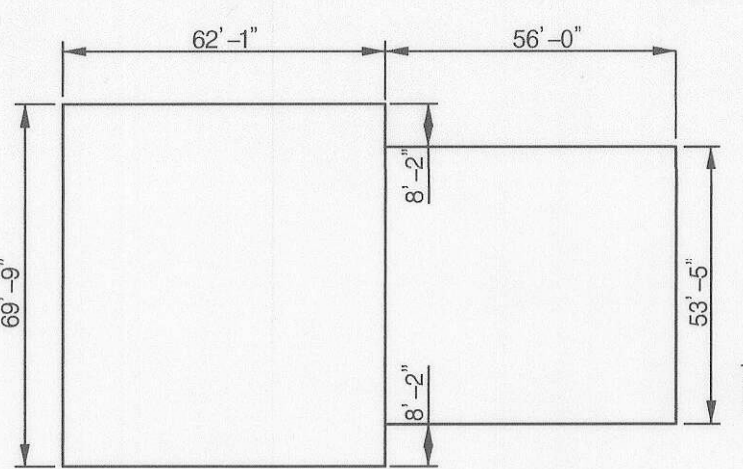
PROGRESSIVE ENGINEERING CONSULTANTS, INC.
ENGINEERS • PLANNERS • SURVEYORS
9160 RED BRANCH ROAD • SUITE E9
COLUMBIA, MD 21045
PHONE: (410) 715-0390 FAX: (410) 715-1745

OWNER
HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA MD. 21046

REVISIONS		
NO.	DATE	DESCRIPTION

GEOMETRIC LAYOUT
ROCKBURN BRANCH PARK MAINTENANCE FACILITY
HOWARD COUNTY, MARYLAND
DATE: JANUARY 10, 2003 SCALE: 1"=30'

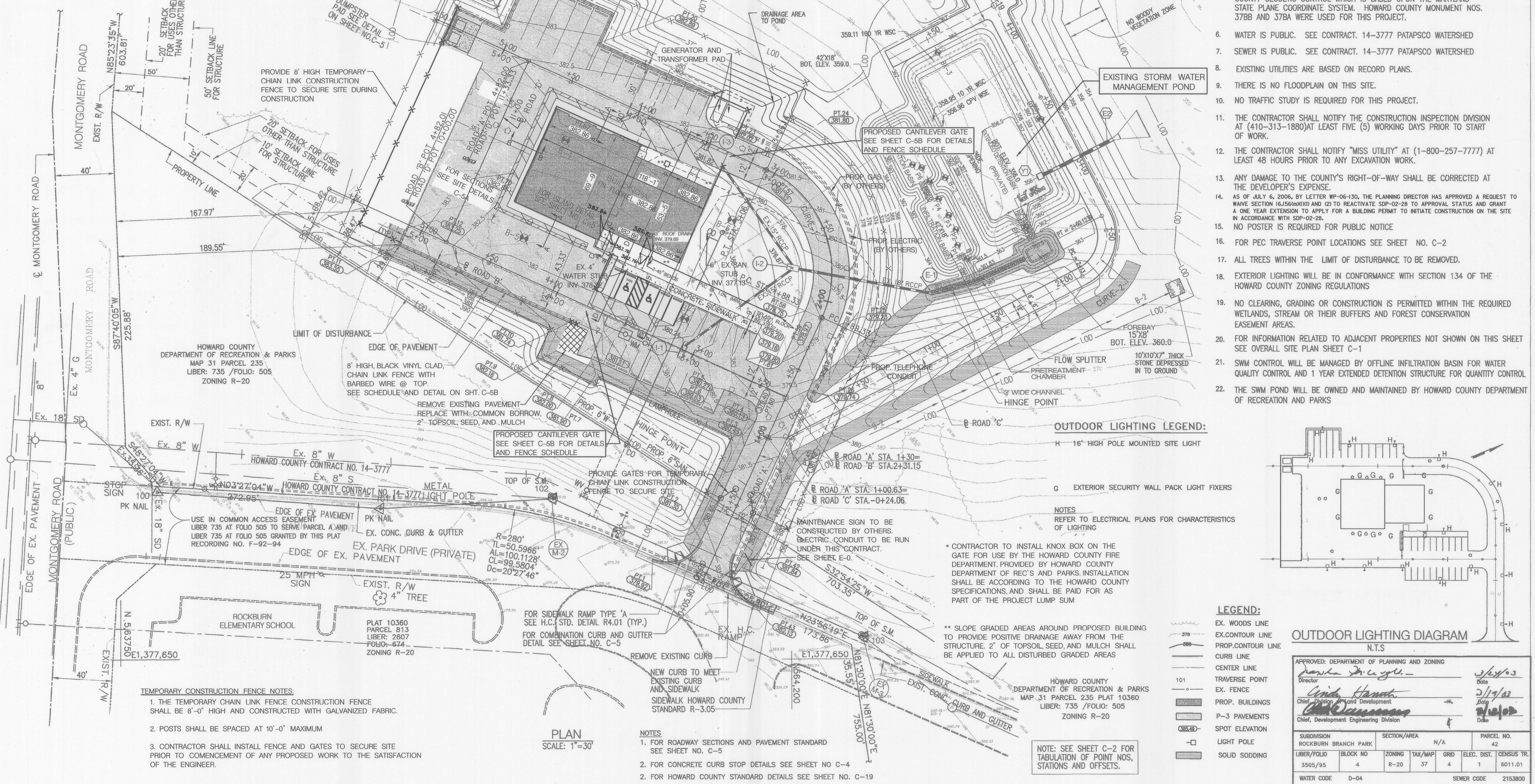
CAPITAL PROJECT NO. N-3107
C-2
SET SHEET 3 OF 38
SDP-02-28



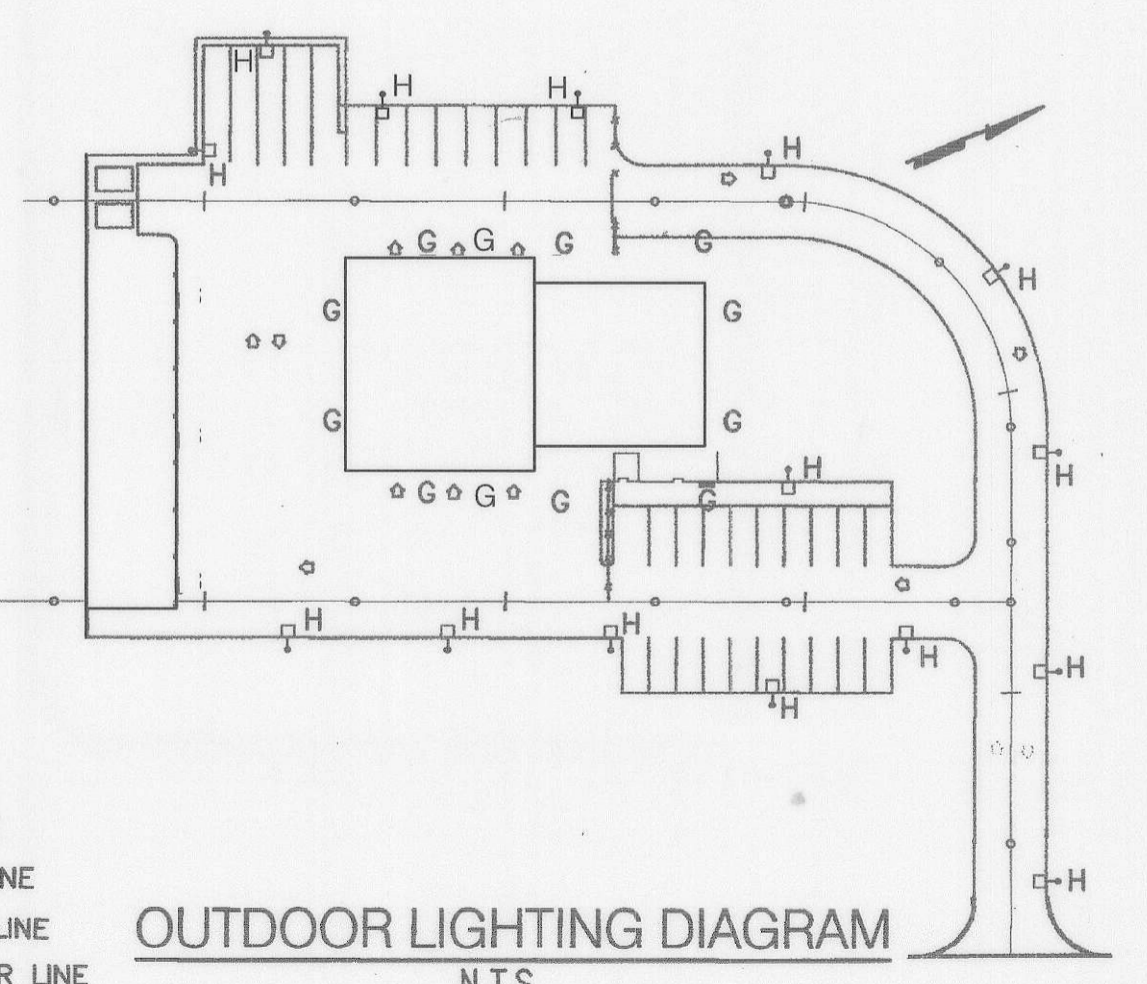
PROPOSED 5'-0" GATE, MATCH HEIGHT OF FENCE SEE HOWARD COUNTY STD. G 8.03 FOR DETAILS SEE SHEET C-5B FOR FENCE SCHEDULE

NOTE: SUNFLEX EXTERIOR WATERPROOFING SYSTEM FOR THE FOUNDATION WALL SHALL BE TO THE FINISHED PAVEMENT SURFACE OR TO FINISH GRADE

NOTE: PROVIDE 10' WIDTH OF SODDING AT ALL LOCATIONS WHERE GRADING CREATES A DITCH CONFIGURATION.



- ### GENERAL NOTES
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
 - TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - ALL PLAN DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM (FIELD RUN) SURVEY WITH 2 FOOT CONTOUR INTERVALS PREPARED BY PROGRESSIVE ENGINEERING CONSULTANTS, INC. DATED JULY 2000.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 378B AND 378A WERE USED FOR THIS PROJECT.
 - WATER IS PUBLIC. SEE CONTRACT. 14-3777 PATAPSCO WATERSHED
 - SEWER IS PUBLIC. SEE CONTRACT. 14-3777 PATAPSCO WATERSHED
 - EXISTING UTILITIES ARE BASED ON RECORD PLANS.
 - THERE IS NO FLOODPLAIN ON THIS SITE.
 - NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
 - THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410-313-1880) AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT (1-800-257-7777) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
 - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - AS OF JULY 6, 2006, BY LETTER WP-06-130, THE PLANNING DIRECTOR HAS APPROVED A REQUEST TO WAIVE SECTION 16.6 (B) (1) AND (2) TO REACTIVATE SDP-02-28 TO APPROVAL STATUS AND GRANT A ONE YEAR EXTENSION TO APPLY FOR A BUILDING PERMIT TO INITIATE CONSTRUCTION ON THE SITE IN ACCORDANCE WITH SDP-02-28.
 - NO POSTER IS REQUIRED FOR PUBLIC NOTICE
 - FOR PEC TRAVERSE POINT LOCATIONS SEE SHEET NO. C-2
 - ALL TREES WITHIN THE LIMIT OF DISTURBANCE TO BE REMOVED.
 - EXTERIOR LIGHTING WILL BE IN CONFORMANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS
 - NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
 - FOR INFORMATION RELATED TO ADJACENT PROPERTIES NOT SHOWN ON THIS SHEET SEE OVERALL SITE PLAN SHEET C-1
 - SWM CONTROL WILL BE MANAGED BY OFFLINE INFILTRATION BASIN FOR WATER QUALITY CONTROL AND 1 YEAR EXTENDED DETENTION STRUCTURE FOR QUANTITY CONTROL
 - THE SWM POND WILL BE OWNED AND MAINTAINED BY HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS



- ### LEGEND:
- EX. WOODS LINE
 - EX. CONTOUR LINE
 - PROP. CONTOUR LINE
 - CURB LINE
 - CENTER LINE
 - TRAVERSE POINT
 - EX. FENCE
 - PROP. BUILDINGS
 - P-3 PAVEMENTS
 - SPOT ELEVATION
 - LIGHT POLE
 - SOLID SODDING

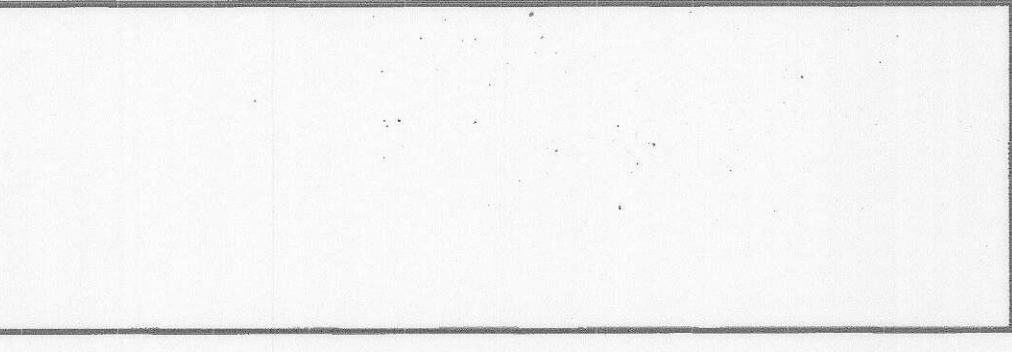
APPROVED: DEPARTMENT OF PLANNING AND ZONING

Dasha Drayton Director 3/14/03 Date

Andy Hanft Chief, Division of Land Development 3/19/03 Date

Chris Cummings Chief, Development Engineering Division 3/19/03 Date

SUBDIVISION	SECTION/AREA	PARCEL NO.
ROCKBURN BRANCH PARK	N/A	42
LIBER/FOLIO	BLOCK NO	ZONING
3505/95	4	R-20
TAX/MAP	GRID	ELEC. DIST.
37	4	1
CENSUS TR.	6011.01	
WATER CODE	D-04	SEWER CODE
		2153800



Walter P. Solis
4-19-07

ati Architects Engineers and Construction Consultants
8950 Route 108 Suite 218
Columbia Maryland 21045 (410)995-4067 Fax(410)992-1837



PROGRESSIVE ENGINEERING CONSULTANTS, INC.
ENGINEERS • PLANNERS • SURVEYORS
9160 RED BRANCH ROAD • SUITE E9
COLUMBIA, MD 21045
PHONE: (410) 715-0390 FAX: (410) 715-1745

OWNER
HOWARD COUNTY
DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA MD. 21046

REVISIONS

NO.	DATE	DESCRIPTION

SITE AND GRADING PLAN
ROCKBURN BRANCH PARK
MAINTENANCE FACILITY
HOWARD COUNTY, MARYLAND
DATE: JANUARY 10, 2003 SCALE: 1"=30'
CAPITAL PROJECT NO. N-3107
C-3
SET SHEET 4 OF 38
SDP-02-28



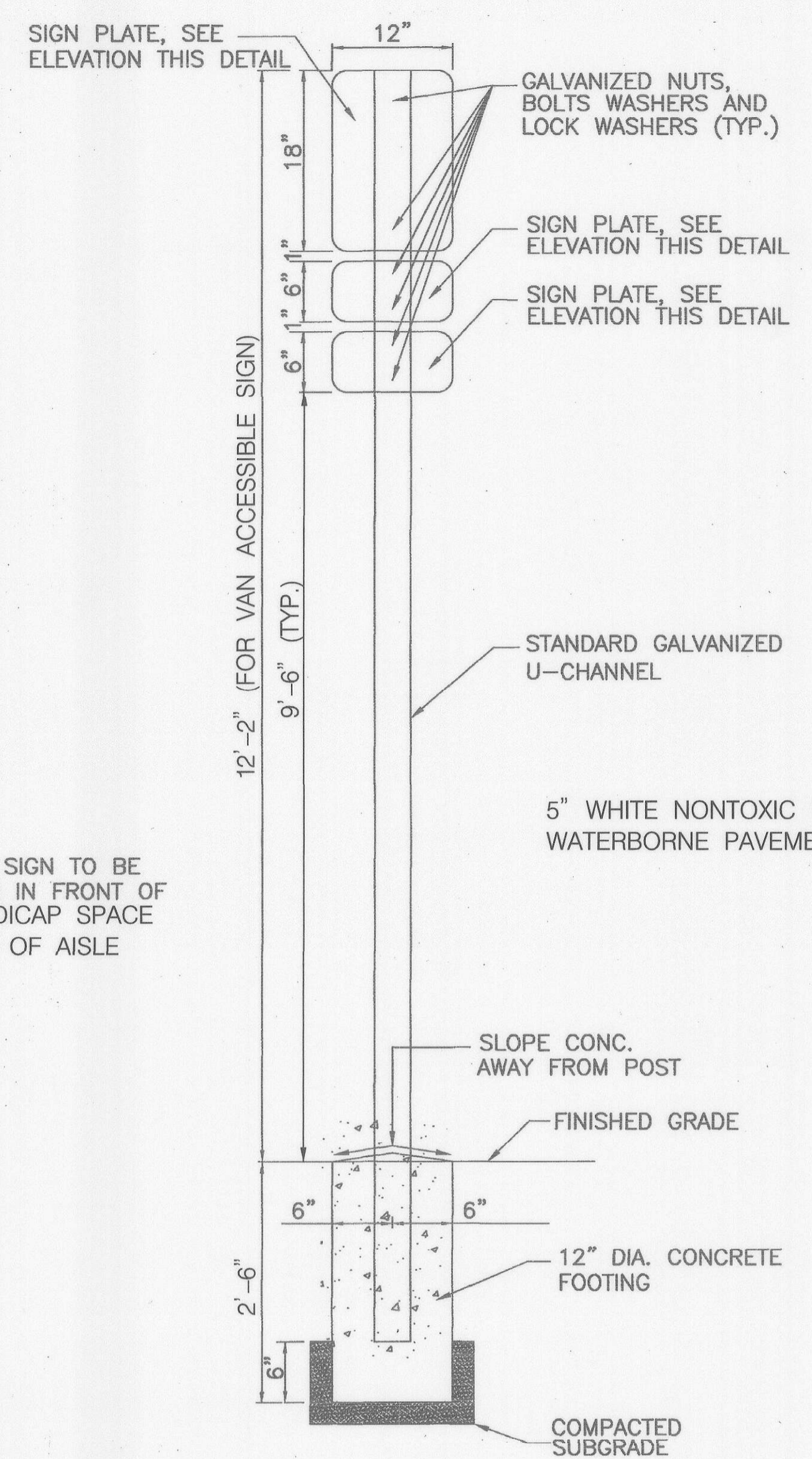
COLORS:
 LEGEND AND BORDER - GREEN
 WHITE SYMBOL ON BLUE BACKGROUND
 BACKGROUND - WHITE

NOTE: PROVIDE SIGNS AS INDICATED ON SITE PLAN

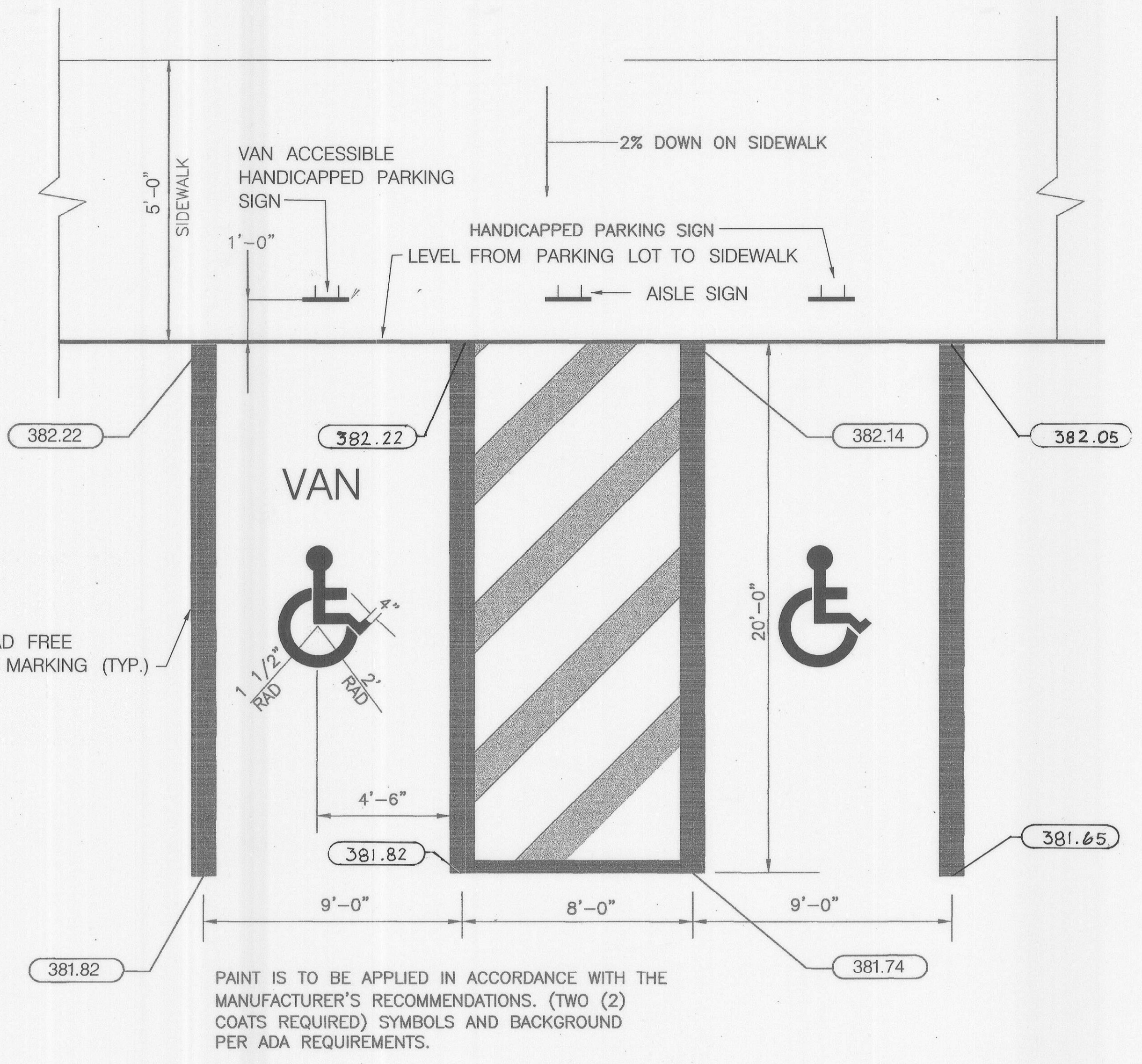
VAN ACCESSIBLE ELEVATION

HANDICAPPED PARKING SIGN DETAILS
 NOT TO SCALE

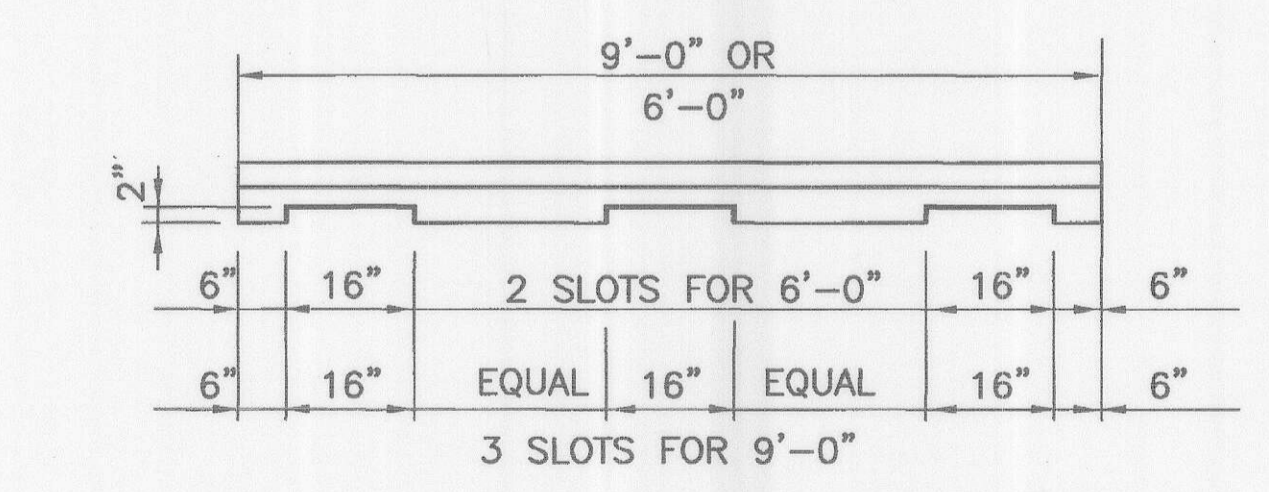
* VAN ACCESSIBLE HANDICAPPED SIGN SHOWN. AISLE AND HANDICAPPED PARKING SIGN SHALL BE MOUNTED SIMILARLY WITH 9'-6" CLEARANCE FROM BOTTOM OF SIGN TO TOP OF FINISHED GRADE.



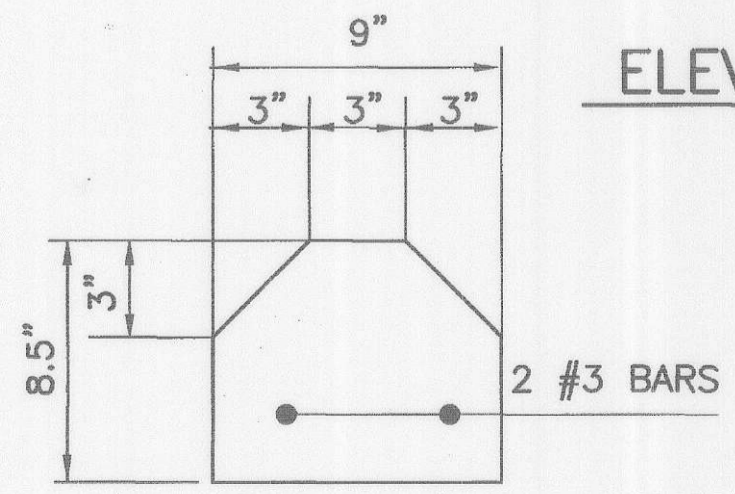
SECTION *



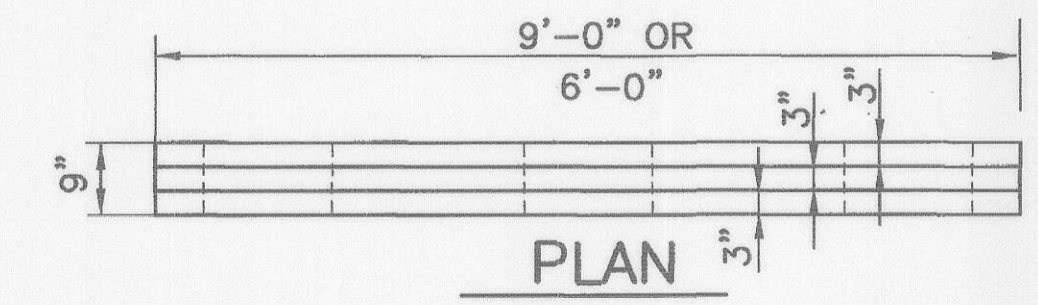
HANDICAPPED PARKING PLAN
 NOT TO SCALE



ELEVATION



SECTION

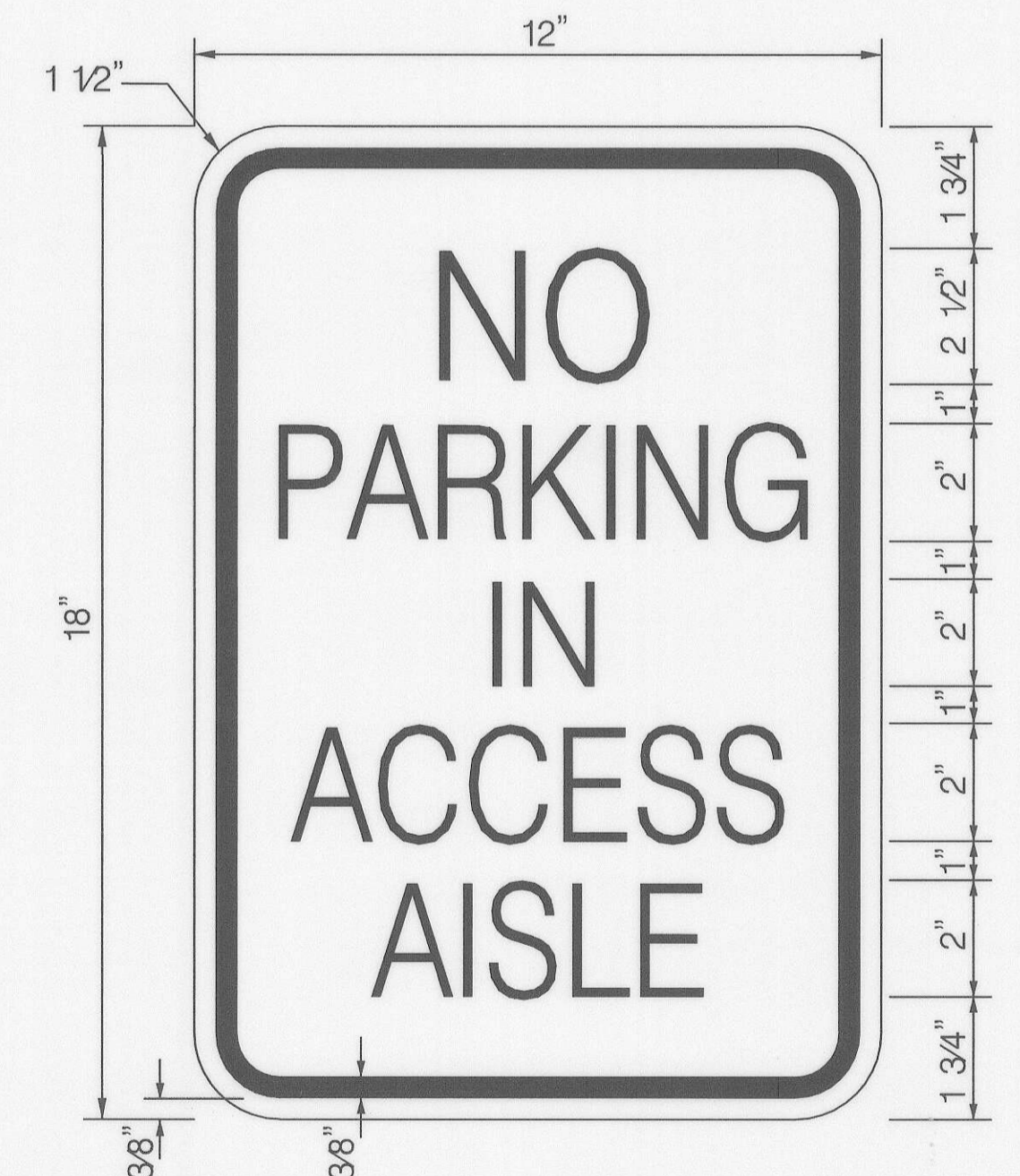


PLAN

CONCRETE CURB STOP DETAILS
 NOT TO SCALE



HANDICAPPED PARKING SIGN
 NOT TO SCALE



AISLE SIGN
 NOT TO SCALE

NOTE: FOR HANDICAPPED SIGN SEE HOWARD COUNTY STANDARD DETAIL NO. 5.09.

APPROVED: DEPARTMENT OF PLANNING AND ZONING					
<i>Director</i>				<i>3/6/03</i>	
<i>Chief, Division of Land Development</i>				<i>3/19/03</i>	
<i>Chief, Development Engineering Division</i>				<i>3/19/03</i>	
SUBDIVISION	ROCKBURN BRANCH PARK	SECTION/AREA	N/A	PARCEL NO.	42
LIBER/FOLIO	3505/95	BLOCK NO.	4	ZONING	R-20
		TAX/MAP	37	GRID	4
		ELEC. DIST.	1	CENSUS TR.	6011.01
WATER CODE	D-04	SEWER CODE	2153800		

SEAL OF MARYLAND
 REGISTERED PROFESSIONAL ENGINEER
William R. Kuli 4-19-07

ati Architects Engineers and Construction Consultants
 8950 Route 108 Suite 218
 Columbia Maryland 21045 (410)995-4067 Fax(410)992-1837

SEAL OF MARYLAND
 REGISTERED PROFESSIONAL ENGINEER
Edmund P. ... 1/9/03

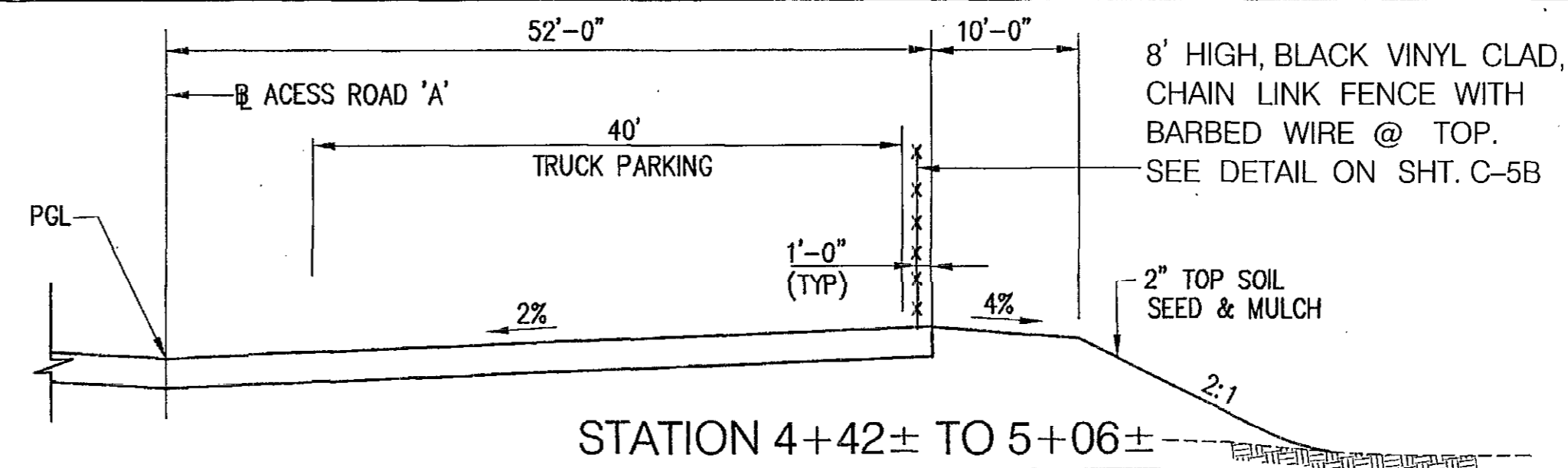
PROGRESSIVE ENGINEERING CONSULTANTS, INC.
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 COLUMBIA, MD 21045
 PHONE: (410) 715-0390 FAX: (410) 715-1745

OWNER
 HOWARD COUNTY
 DEPARTMENT OF RECREATION AND PARKS
 7120 OAKLAND MILLS ROAD
 COLUMBIA MD. 21046

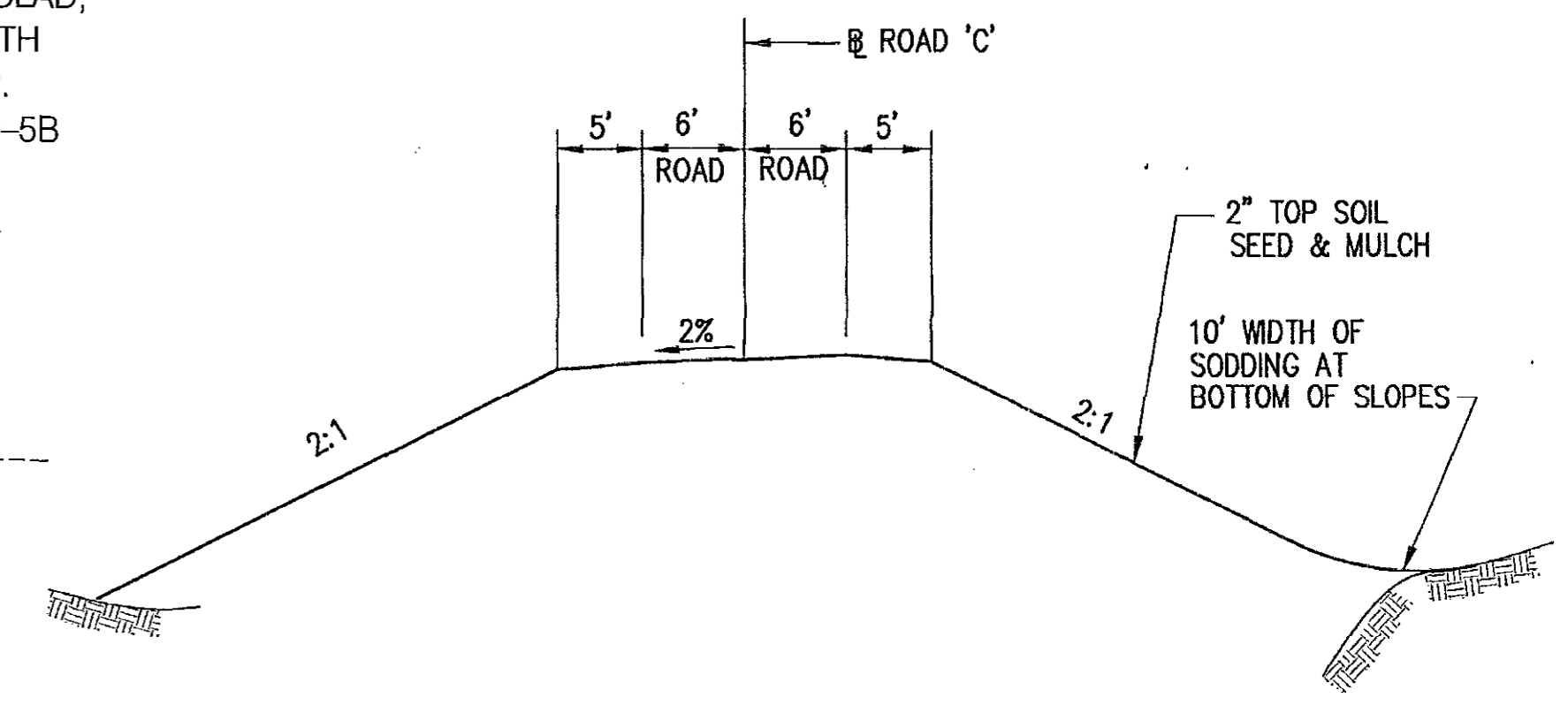
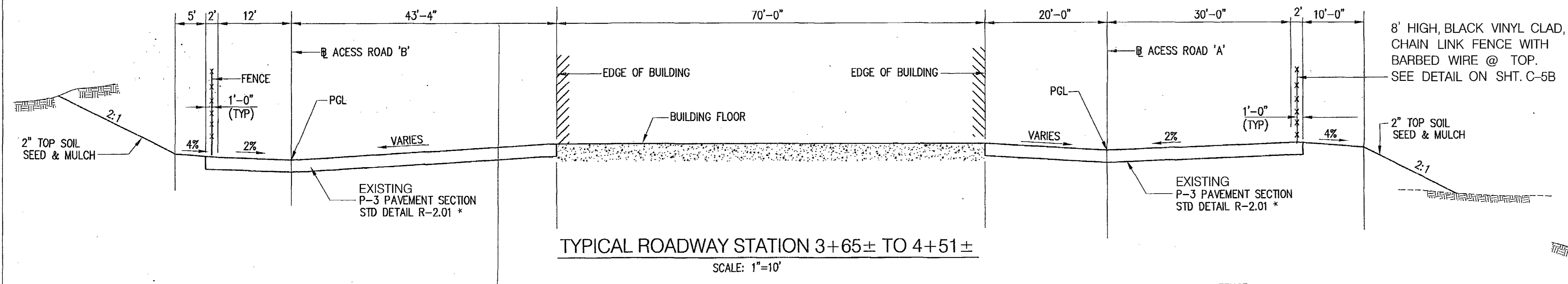
REVISIONS		
NO.	DATE	DESCRIPTION

HANDICAPPED PARKING PLAN
 ROCKBURN BRANCH PARK
 MAINTENANCE FACILITY
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 10, 2003 SCALE: AS SHOWN

CAPITAL PROJECT NO.
 N-3107
 C-4
 SET SHEET 5 OF 38

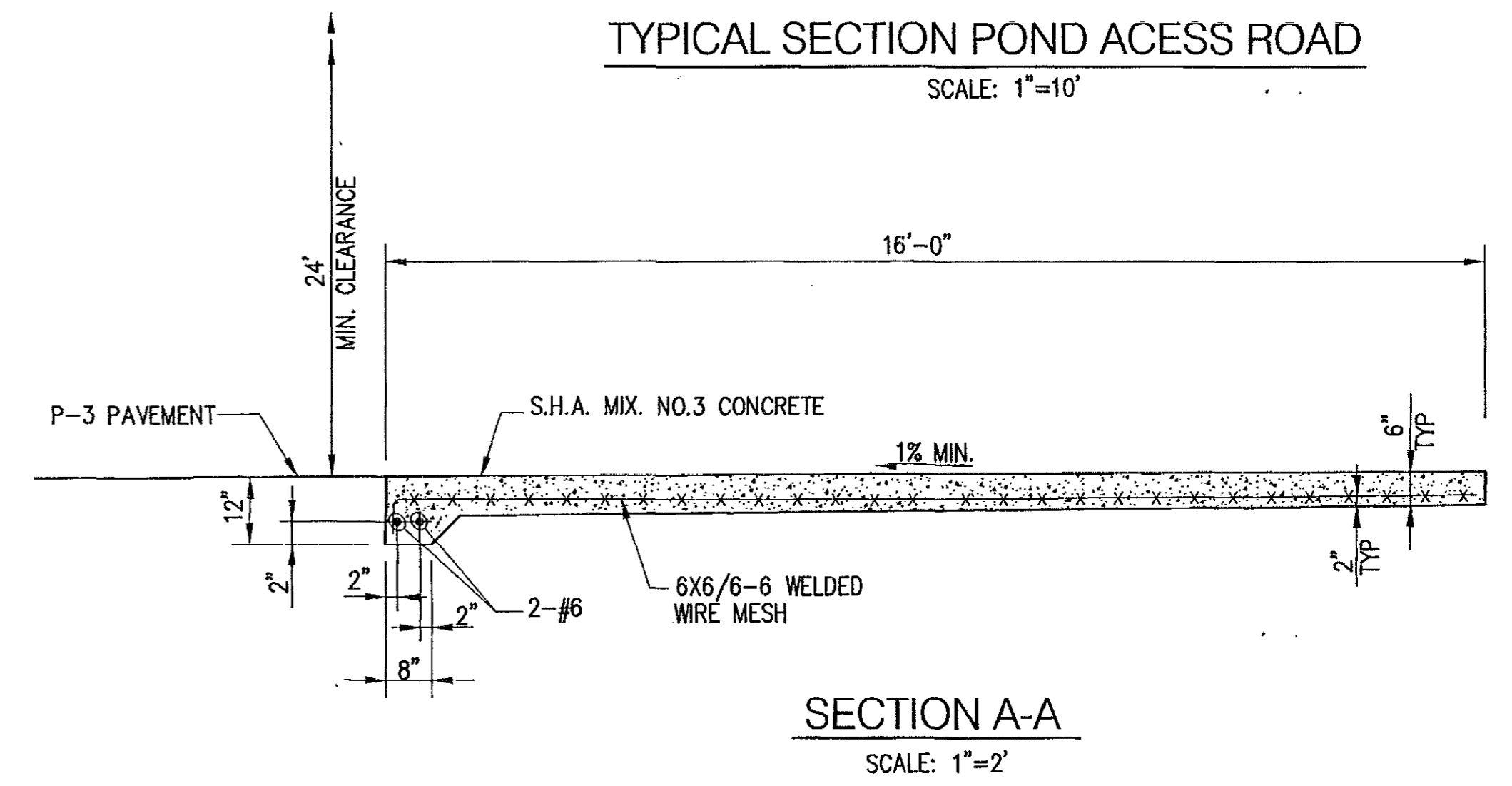
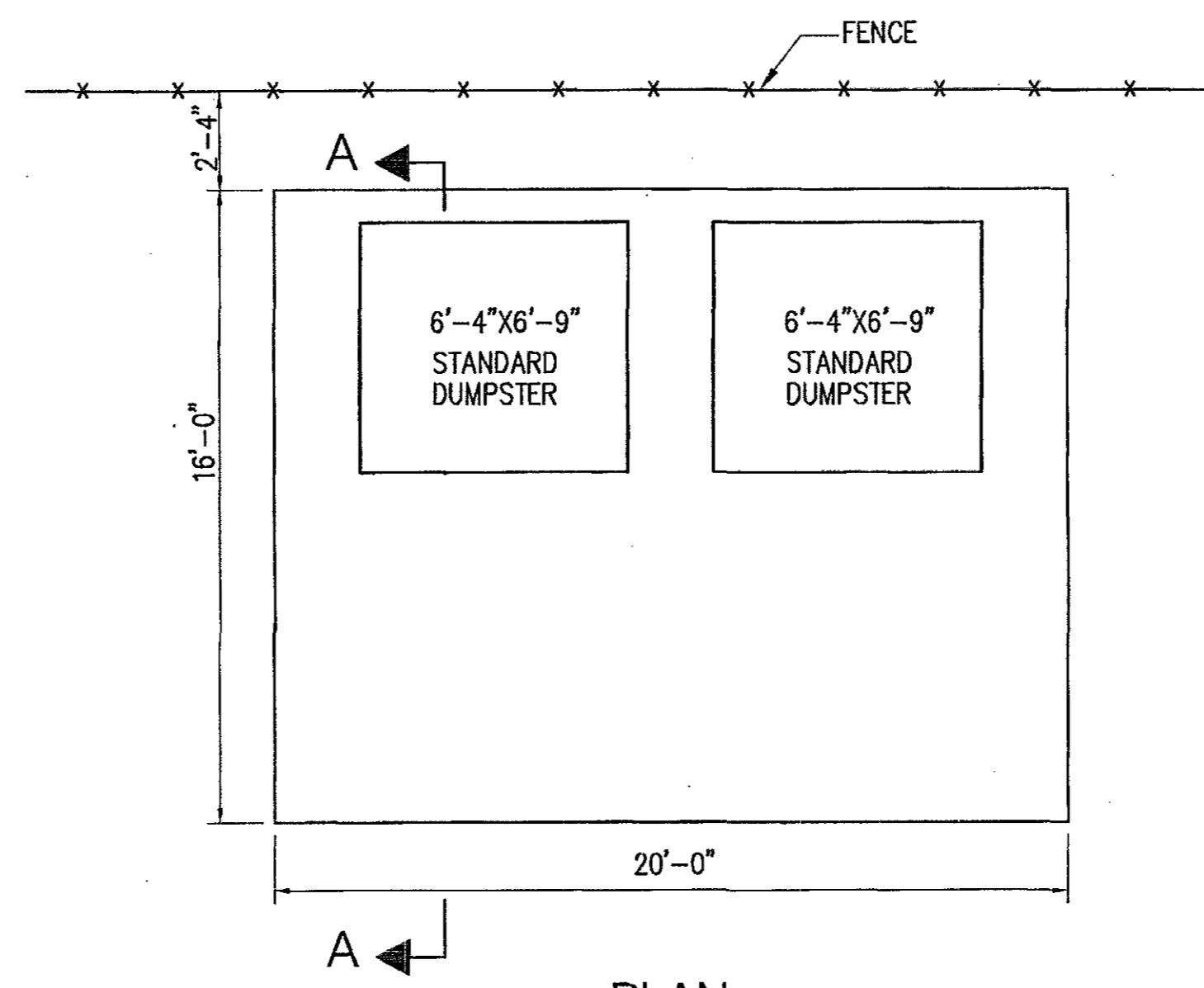
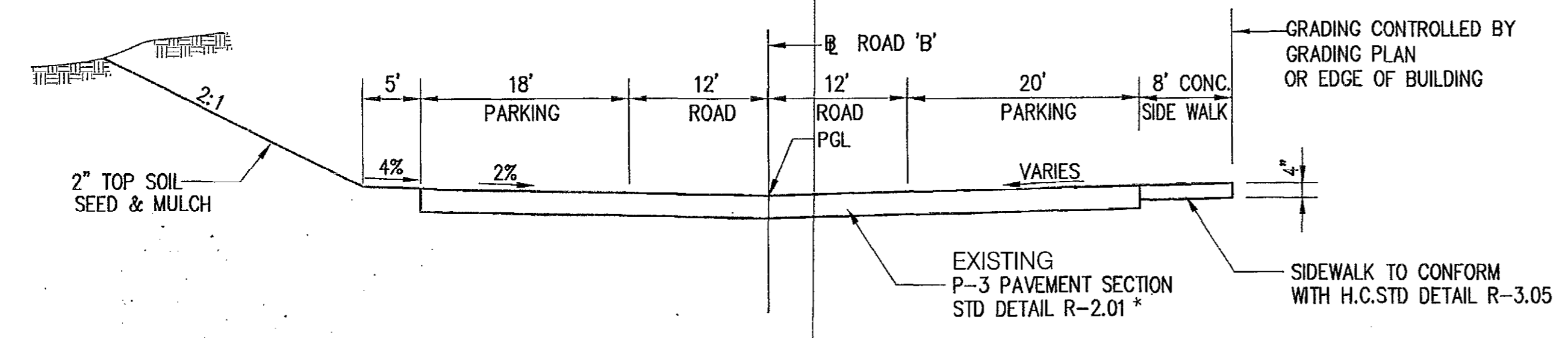


* SURFACE COURSE TO BE CONSTRUCTED BY THE CONTRACTOR UNDER THIS CONTRACT AS DETAILED ON THE PLANS.



TYPICAL ROADWAY STATION 3+65± TO 4+51±
SCALE: 1"=10'

TYPICAL SECTION POND ACCESS ROAD
SCALE: 1"=10'

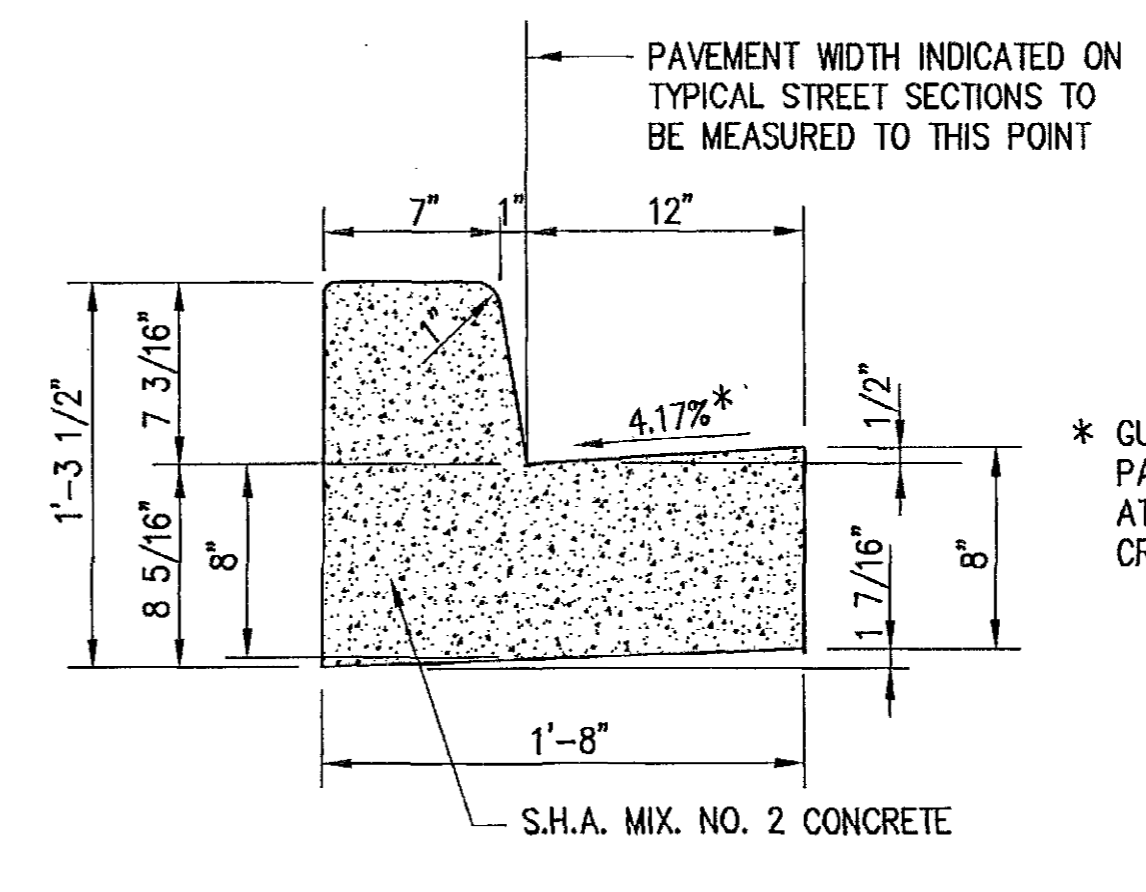
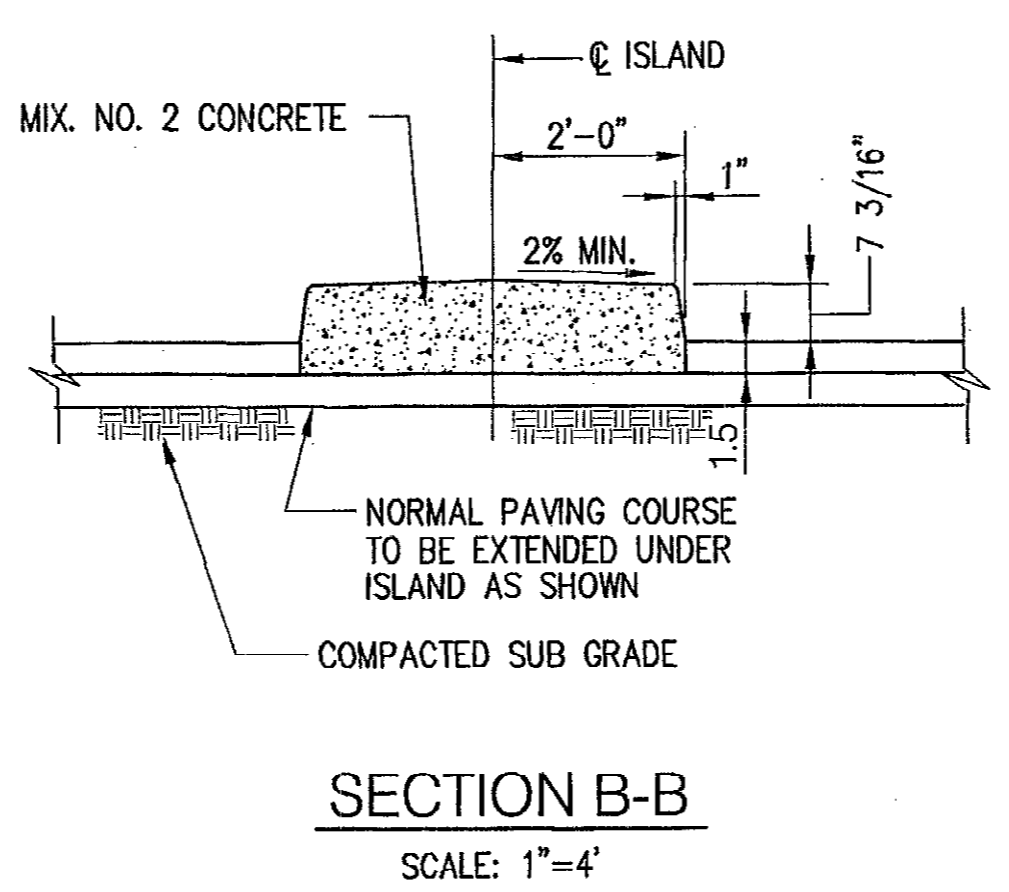
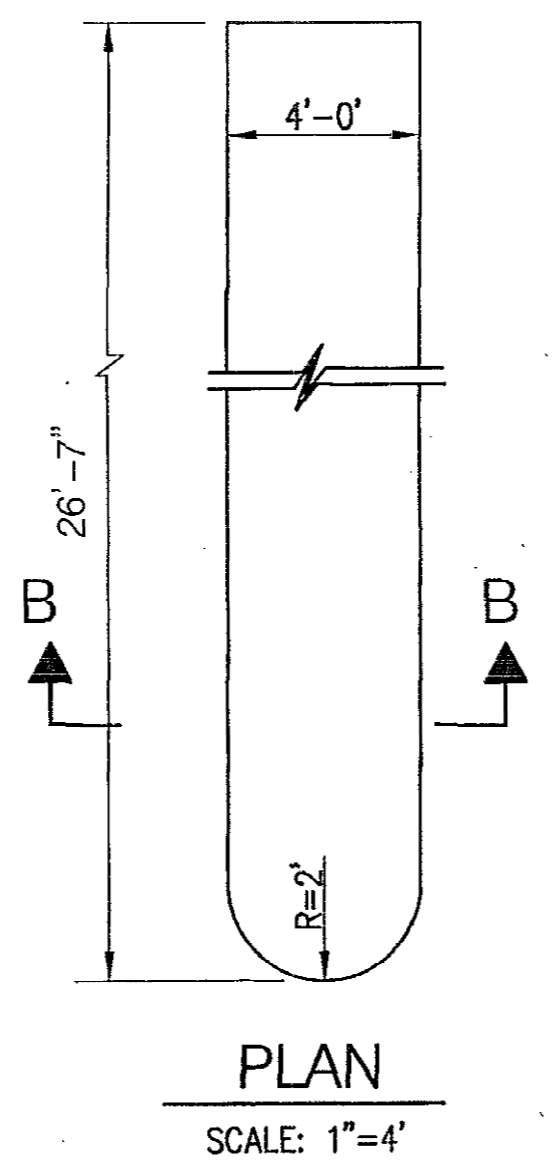
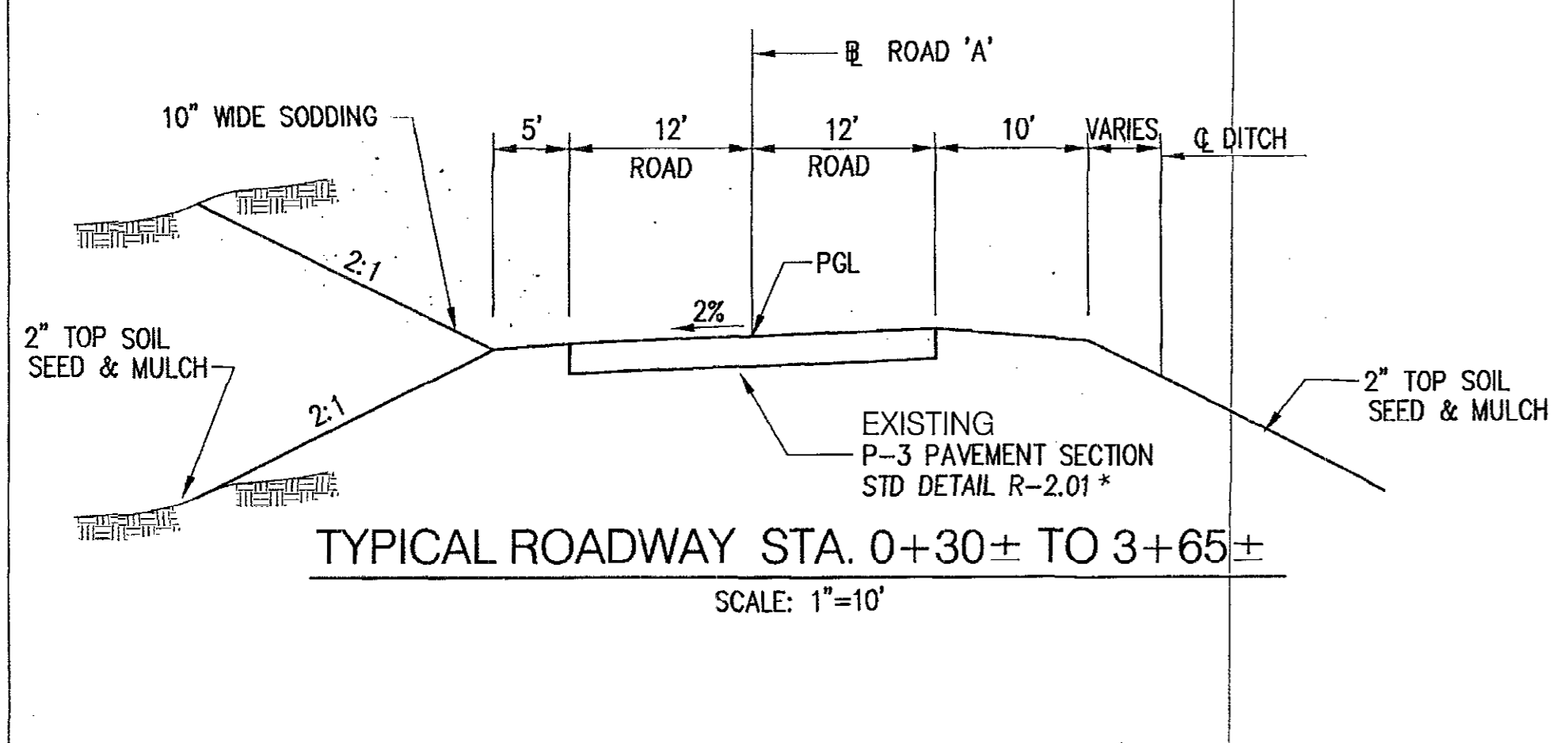


TYPICAL ROADWAY STA. 2+70± TO 3+65± (ROAD-B)
SCALE: 1"=10'

PLAN
SCALE: 1"=4'

SOLID WASTE SERVICE PAD DETAILS

NOTES:
FOR LOCATION OF ROAD A & B SEE SHEET NO C-3.
FOR PROFILE OF ROAD A & B SEE SHEET NO C-6.
FOR PAVEMENT ELEVATIONS, SEE SHEET NO. C-18.



* GUTTER PAN ON HIGH SIDE OF PAVEMENT SECTION SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT CROSS SLOPES.

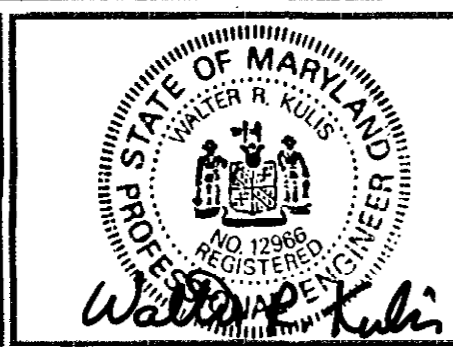
APPROVED: DEPARTMENT OF PLANNING AND ZONING					
<i>Frank D. ...</i> Director				2/24/03 Date	
<i>Chris ...</i> Chief, Division of Land Development				3/17/03 Date	
<i>Chris ...</i> Chief, Development Engineering Division				2/12/03 Date	
SUBDIVISION	ROCKBURN BRANCH PARK	SECTION/AREA	N/A	PARCEL NO.	42
LIBER/FOLD	3505/95	BLOCK NO	4	ZONING	R-20
TAX/MAP	37	GRID	4	ELEC. DIST.	1
WATER CODE	D-04	SEWER CODE	2153600	CENSUS TR.	6011.01

COMBINATION CURB AND GUTTER
SCALE: N.T.S.

SECTION B-B
SCALE: 1"=4'

PLAN
SCALE: 1"=4'
CONCRETE ISLAND DETAILS

ROCK-C5-TYPSEC



4-19-07

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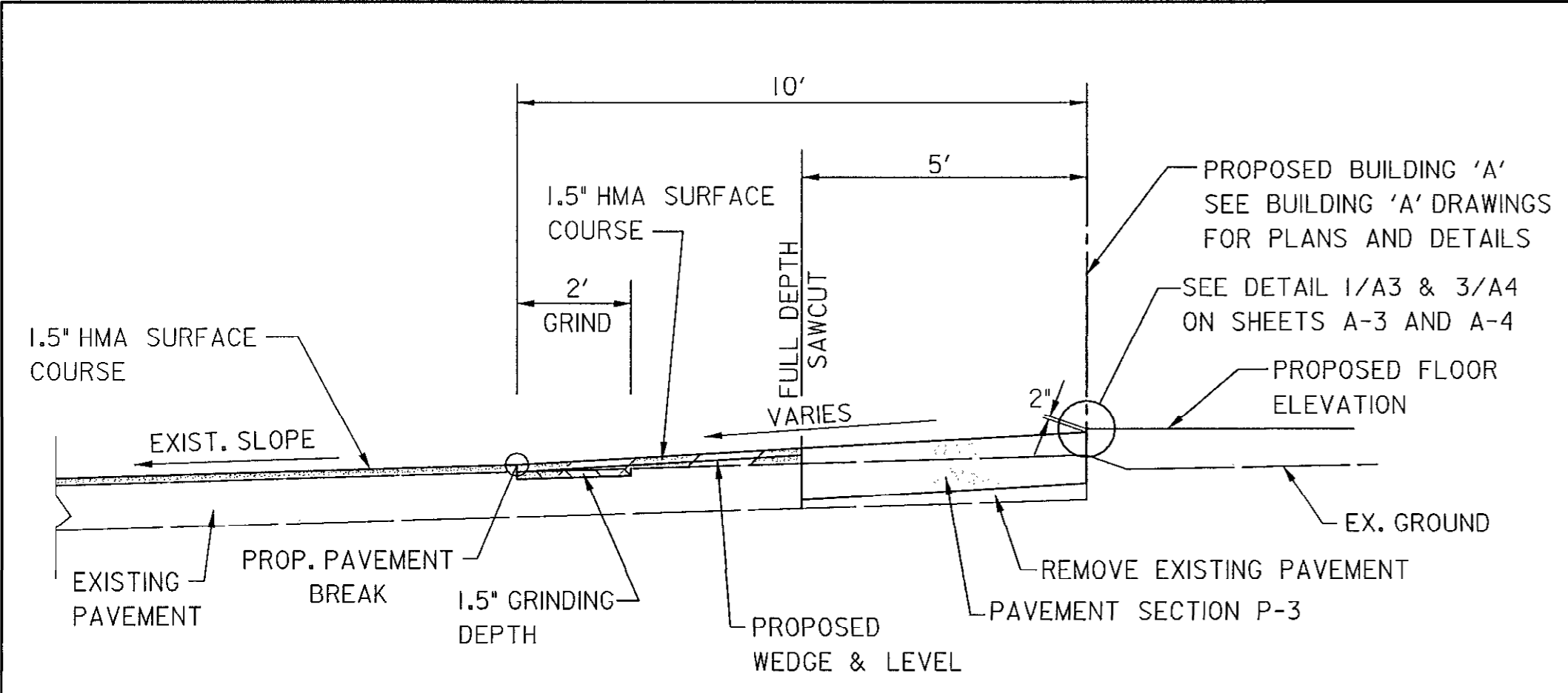
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PHONE: (410) 715-0390 FAX: (410) 715-1745

OWNER
HOWARD COUNTY
DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA MD. 21046

NO.	DATE	DESCRIPTION

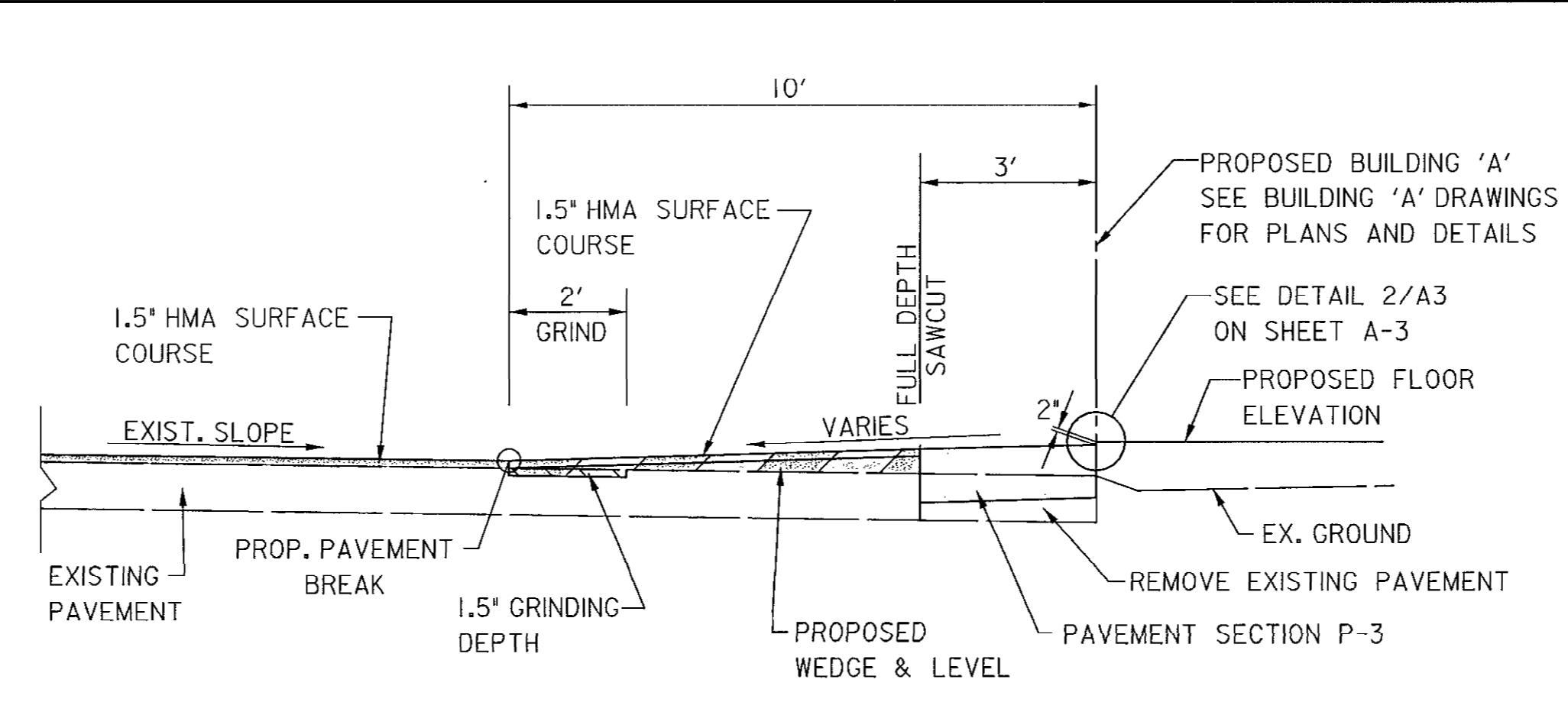
TYPICAL ROADWAY SECTIONS AND MISCELLANEOUS DETAILS
ROCKBURN BRANCH PARK
MAINTENANCE FACILITY
HOWARD COUNTY, MARYLAND
DATE: JANUARY 10, 2003 SCALE: AS SHOWN

CAPITAL PROJECT NO.
N-3107
C-5
SET SHEET 6 OF 38



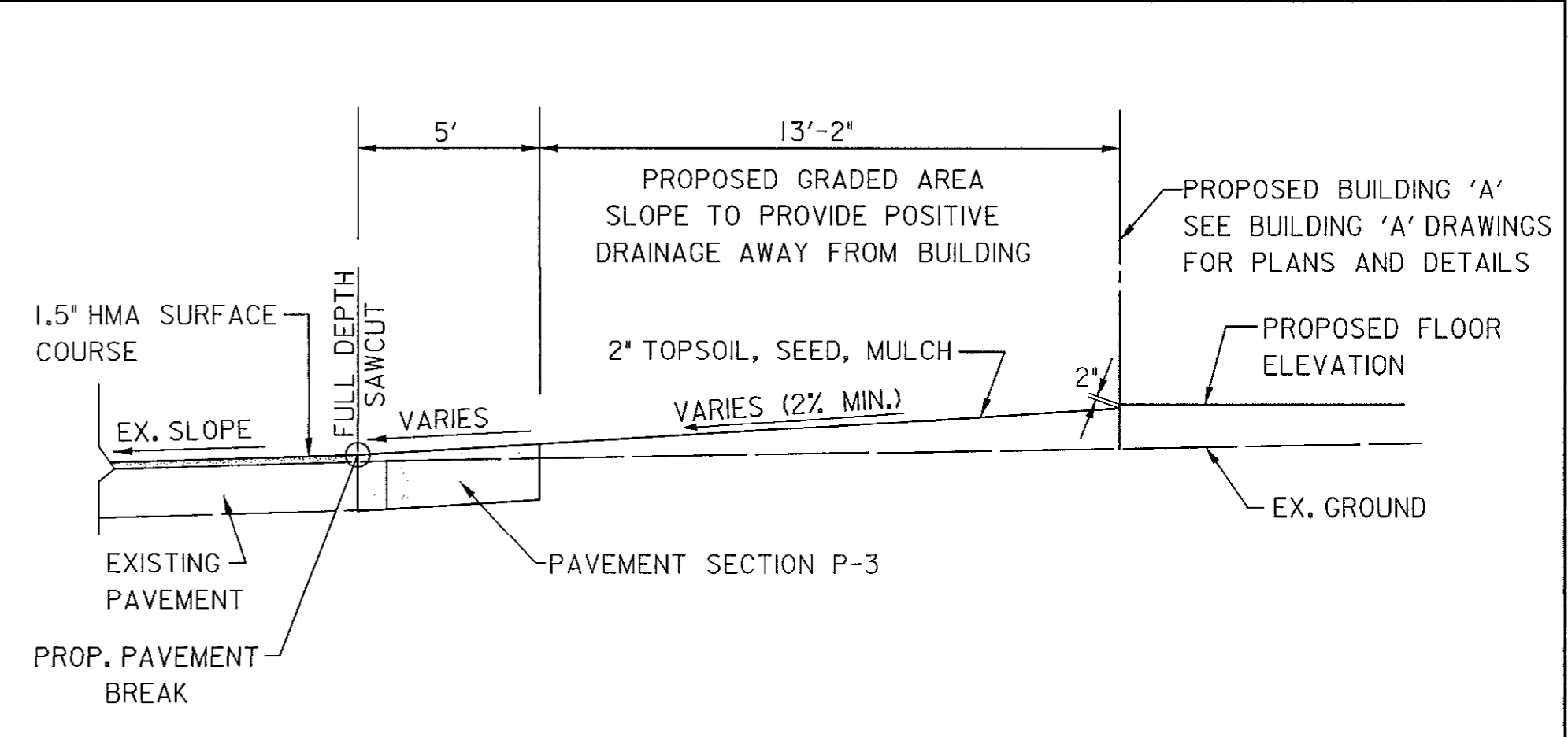
SECTION A-A

NOT TO SCALE



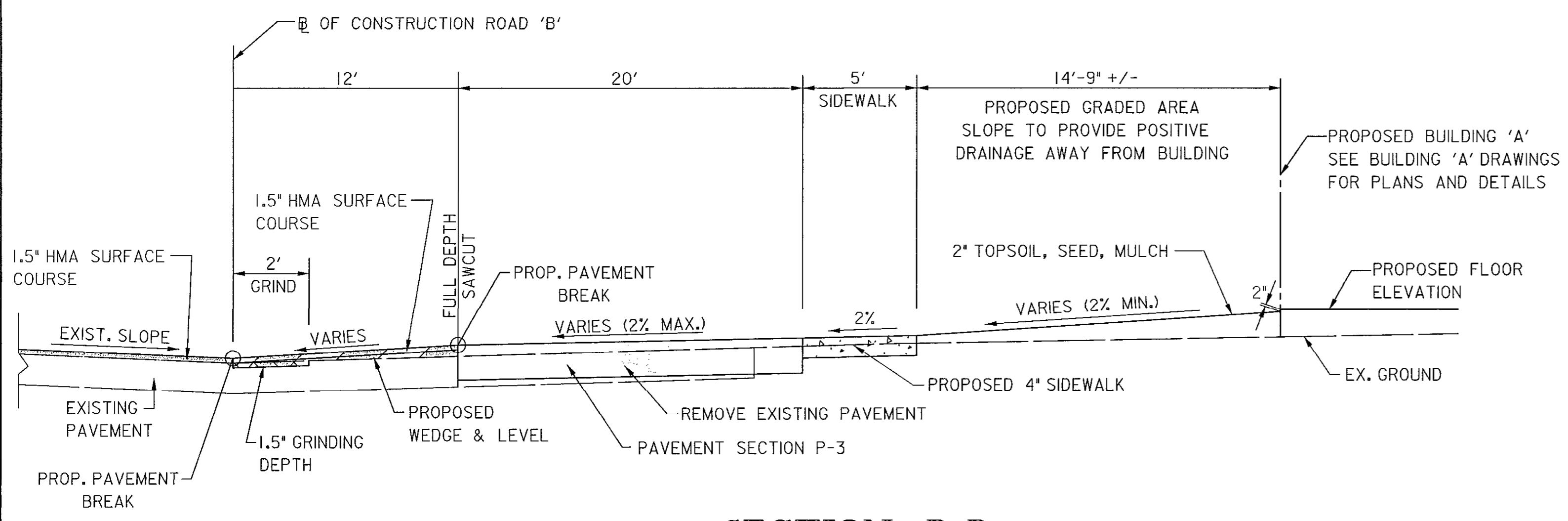
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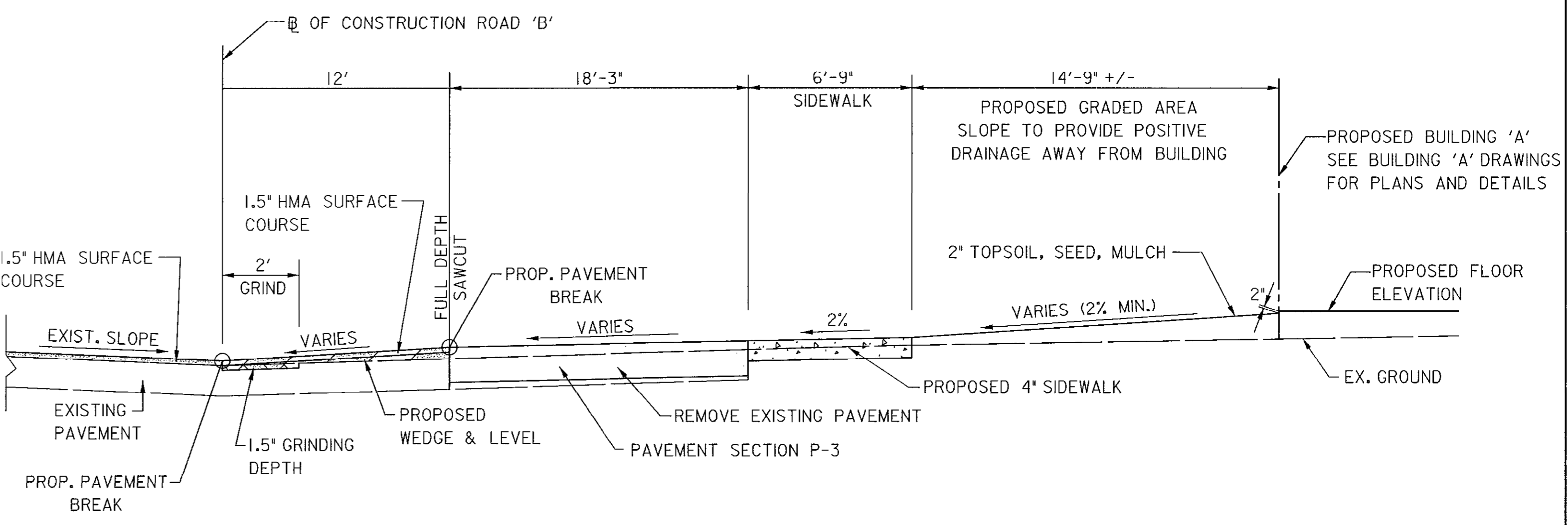
SECTION C-C

NOT TO SCALE



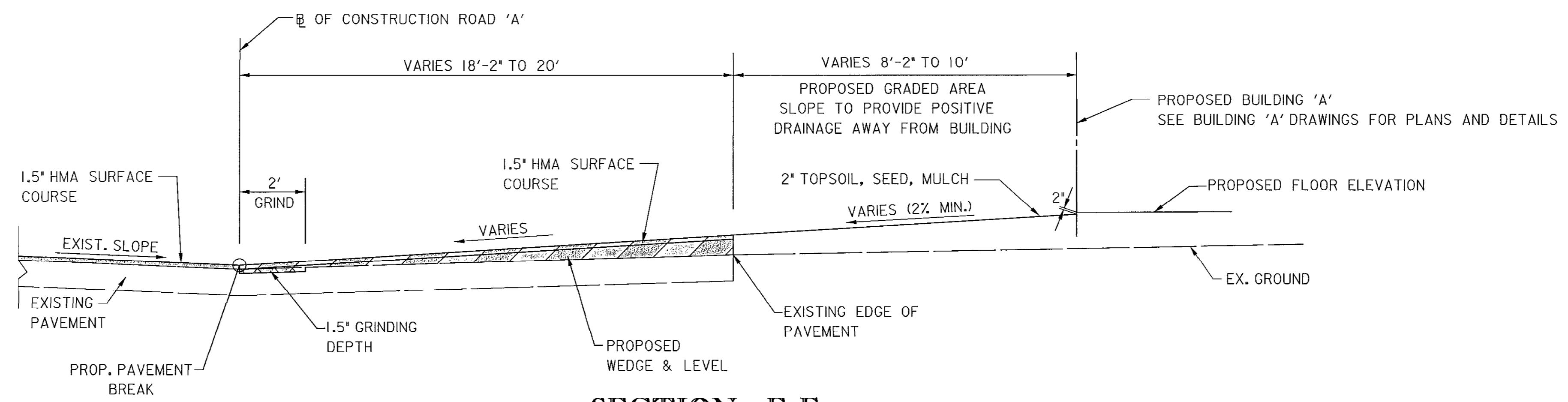
SECTION D-D

NOT TO SCALE



SECTION E-E



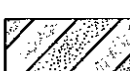

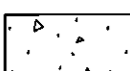
NOT TO SCALE



SECTION F-F

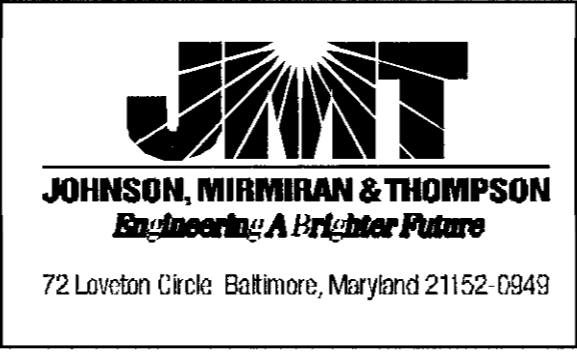
NOT TO SCALE

PAVING LEGEND

-  FULL DEPTH HMA PAVEMENT
-  HMA PAVEMENT GRIND, WEDGE/LEVEL, & OVERLAY
-  HMA PAVEMENT WEDGE/LEVEL & OVERLAY
-  HMA PAVEMENT OVERLAY
-  CONCRETE SIDEWALK

NOTE: SEE SHEET C-18 FOR PAVEMENT, SIDEWALK, AND GRADING STATION, OFFSET, AND ELEVATIONS.

FILE: C:\940\3008632\RockburnPark\HW\2007\04-07-07\Rockburn.dgn DATE: 04/07/07 10:52:47 AM

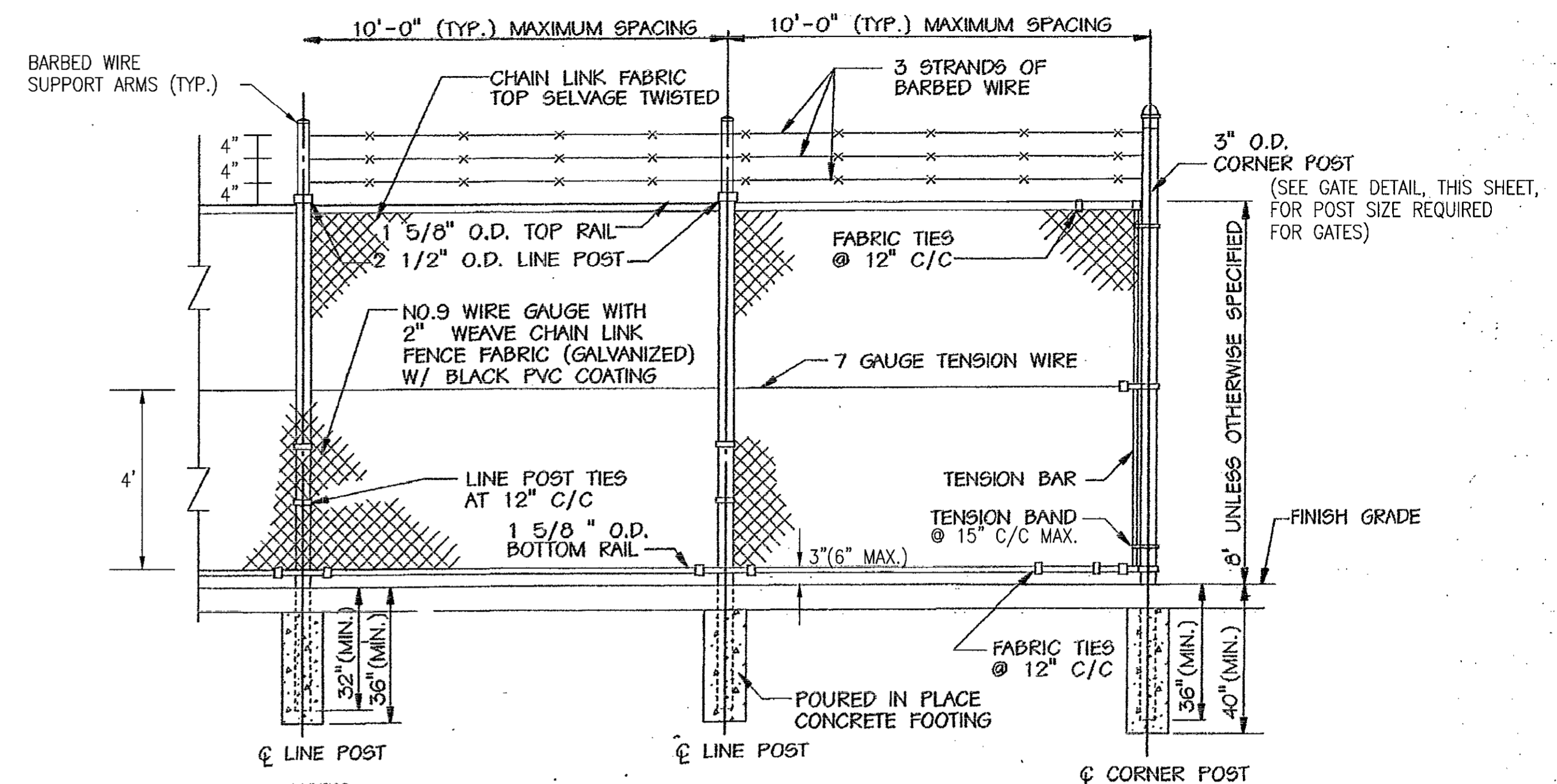
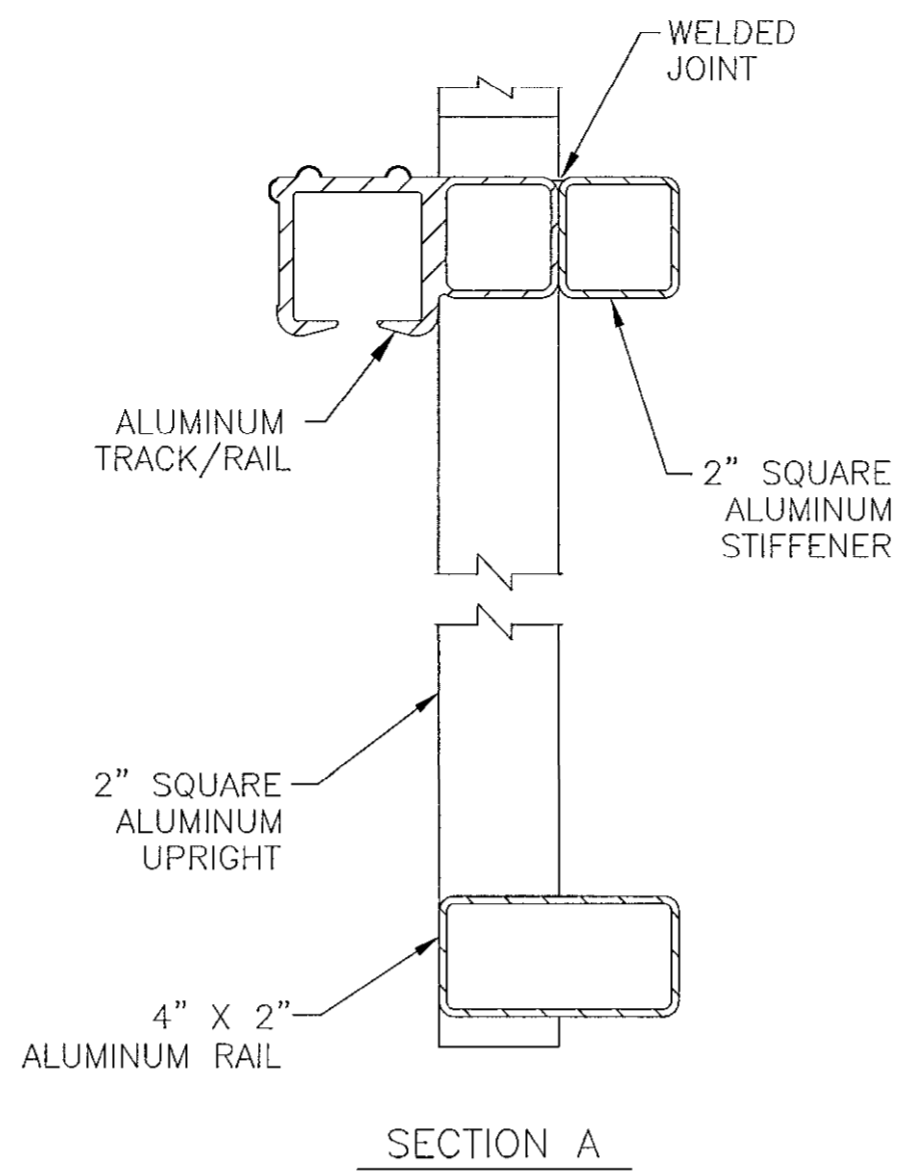
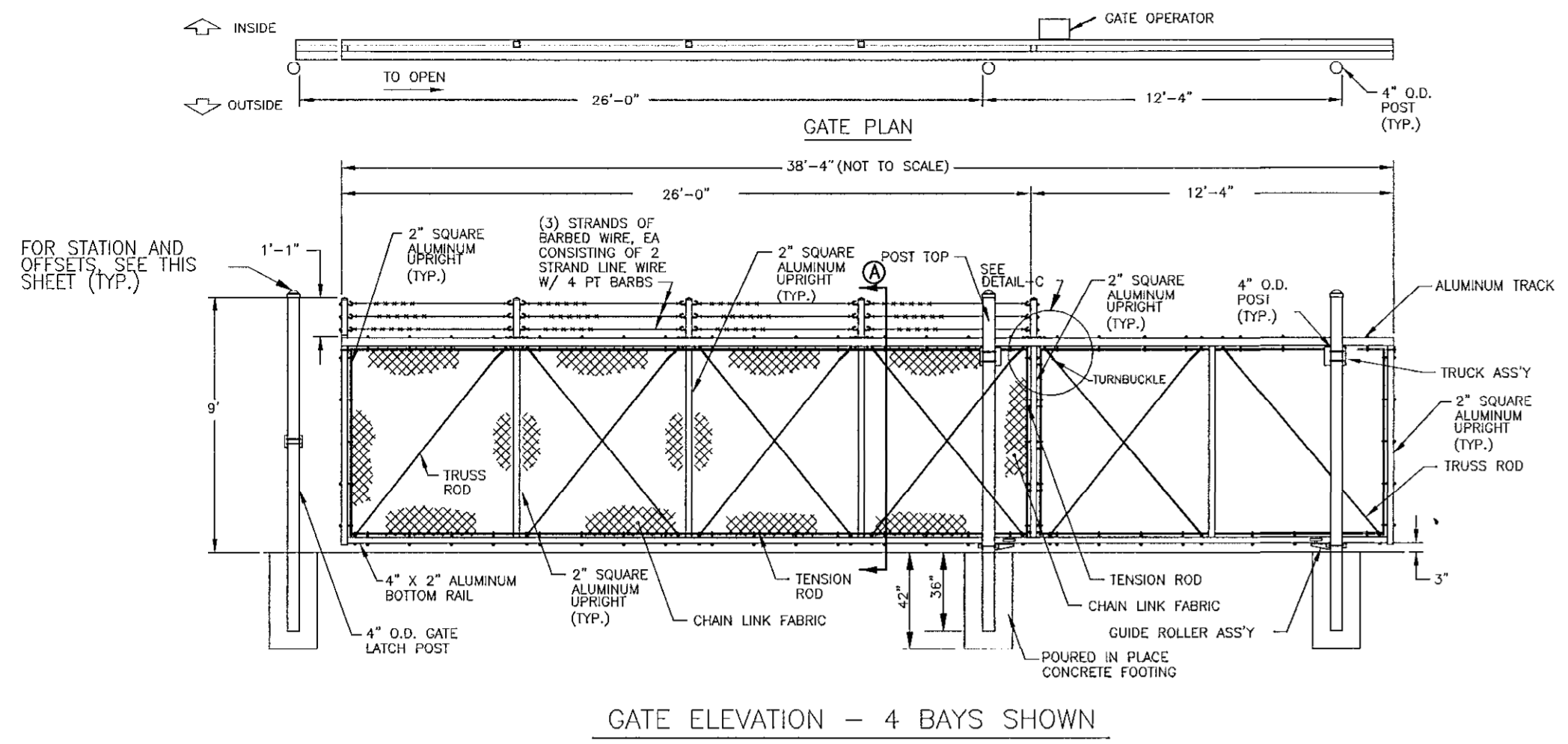


DES: SER				
DRN: CWV				
CHK: WRK				
DATE: 4/07	BY	NO.		DATE

CAPITAL PROJECT NO.
N-3107

SITE DETAILS I
**ROCKBURN BRANCH PARK
MAINTENANCE FACILITY**

C- 5A
SCALE
AS SHOWN
SHEET
7 OF 38



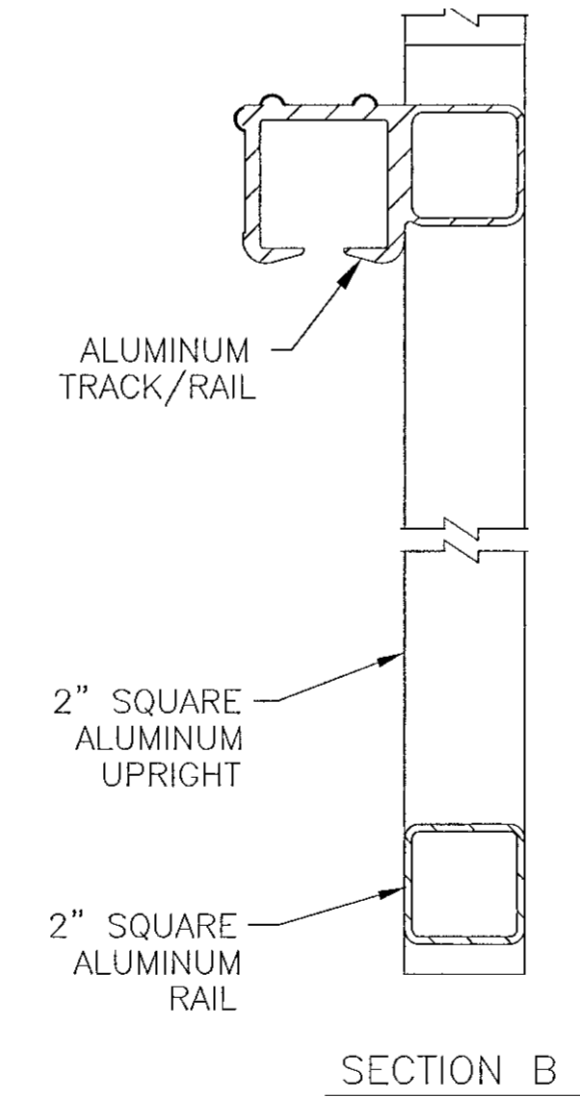
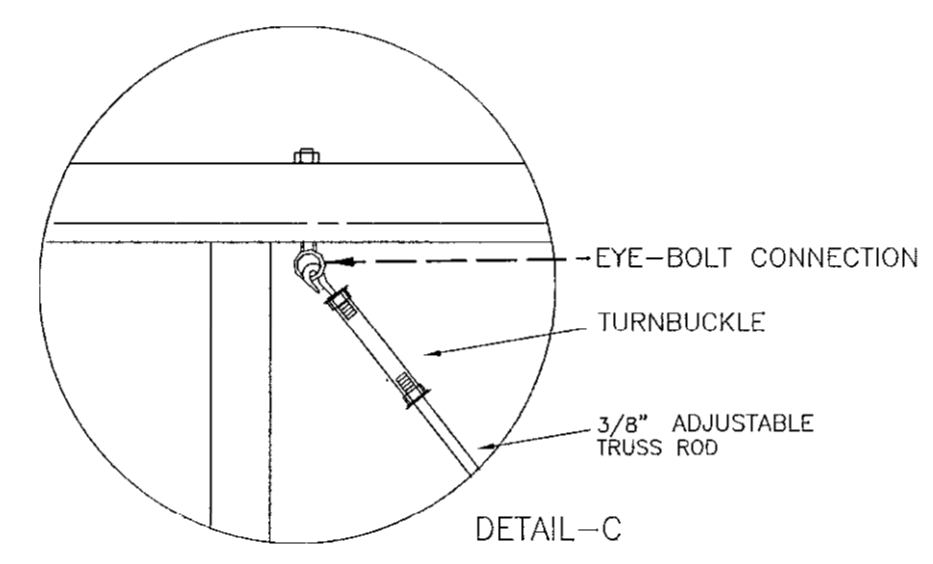
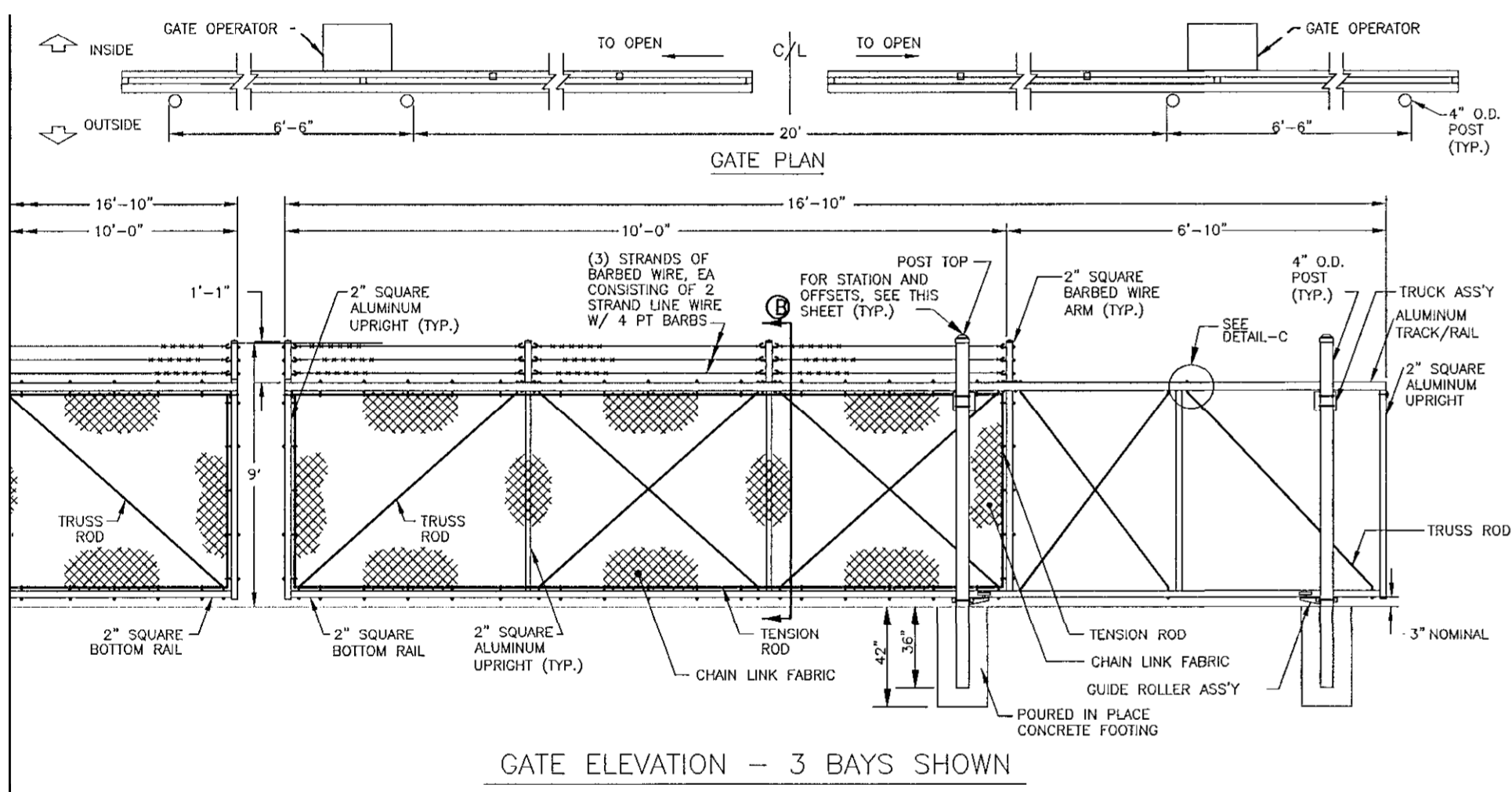
- NOTES:
1. CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN INSTALLING FENCE SO AS NOT TO DAMAGE UNDERGROUND UTILITIES.
 2. INSTALL FABRIC ON OUTSIDE OF FENCE.
 3. KNUCKLE SELVAGE TOP AND BOTTOM OF FABRIC.
 4. ALL CHAIN LINK, FABRIC, POSTS AND FITTINGS SHALL BE GALVANIZED WITH BLACK PVC COATING.
 5. EXCAVATE HOLES FOR EACH POST TO A MINIMUM OF FOUR TIMES THE DIAMETER OF THE POST.

CHAIN LINK FENCE SCHEDULE

FENCE RUN	BASELINE	STATION	OFFSET	REMARKS
1	ROAD 'A'	3+33.92	28.17', LT.	MEET CORNER OF BUILDING
	ROAD 'A'	3+33.92	10.00', LT.	END OF FENCE, GATE END POST
2	ROAD 'A'	3+33.92	10.00', RT.	END OF FENCE, GATE END POST
	ROAD 'A'	3+33.92	32.50', RT.	FENCE CORNER
	ROAD 'A'	4+41.35	31.50', RT.	FENCE CORNER
	ROAD 'A'	4+42.45	55.50', RT.	FENCE CORNER
	ROAD 'A'	5+00.50	55.25', RT.	END OF FENCE, GATE END POST
3	ROAD 'A'	5+05.50	55.25', RT.	END OF FENCE, GATE END POST
	ROAD 'A'	5+05.50	13.60', RT.	FENCE CORNER
	ROAD 'A'	5+40.15	13.00', RT.	FENCE CORNER
	ROAD 'B'	5+40.15	13.00', LT.	FENCE CORNER
4	ROAD 'B'	3+78.00	13.00', LT.	END OF FENCE, GATE END POST
	ROAD 'B'	3+78.00	51.75', RT.	MEET BUILDING

SINGLE CANTILEVER SLIDING GATE DETAIL

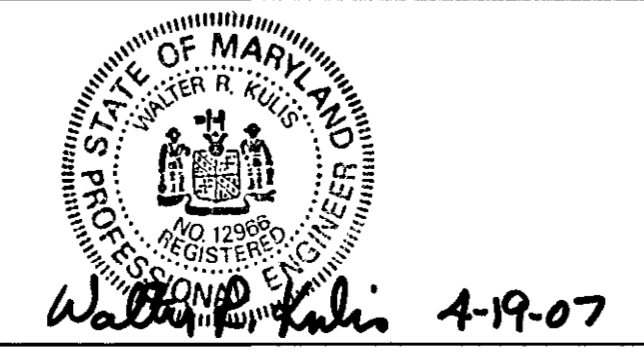
ROAD 'B'
NOT TO SCALE



- NOTES:
1. FOOTING WIDTH TO BE 4 X POST WIDTH.
 2. PLACE GUARD PIPES 2' FROM FENCE END POSTS (4 TOTAL) ON BOTH THE INSIDE AND OUTSIDE OF THE GATE TO PROTECT THE GATE AND FENCE FROM VEHICLE TRAFFIC. THE GUARD PIPES SHALL BE PLACED TO THE SATISFACTION OF THE ENGINEER AND SHALL NOT INTERFERE WITH THE OPERATION OF THE GATE. SEE SH. E-5 FOR GUARD PIPE DETAIL.

DOUBLE CANTILEVER SLIDING GATE DETAIL

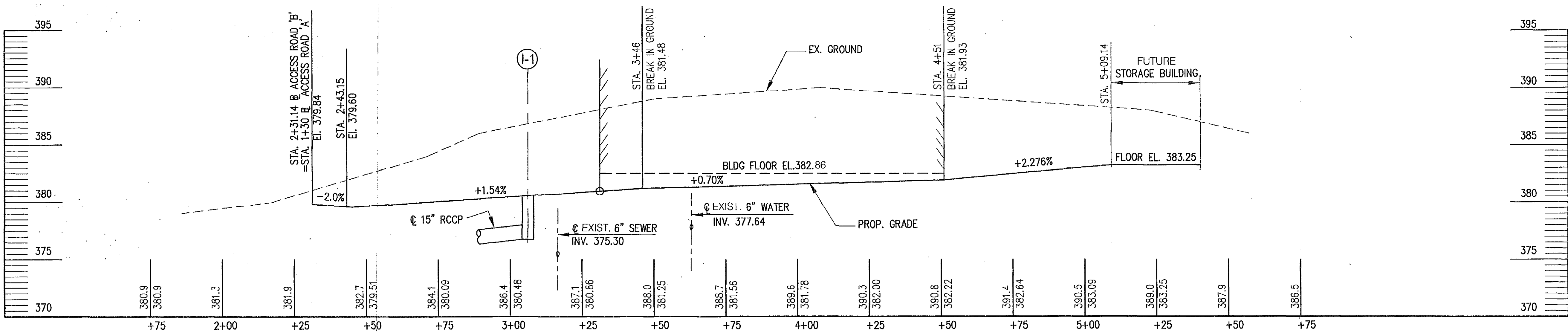
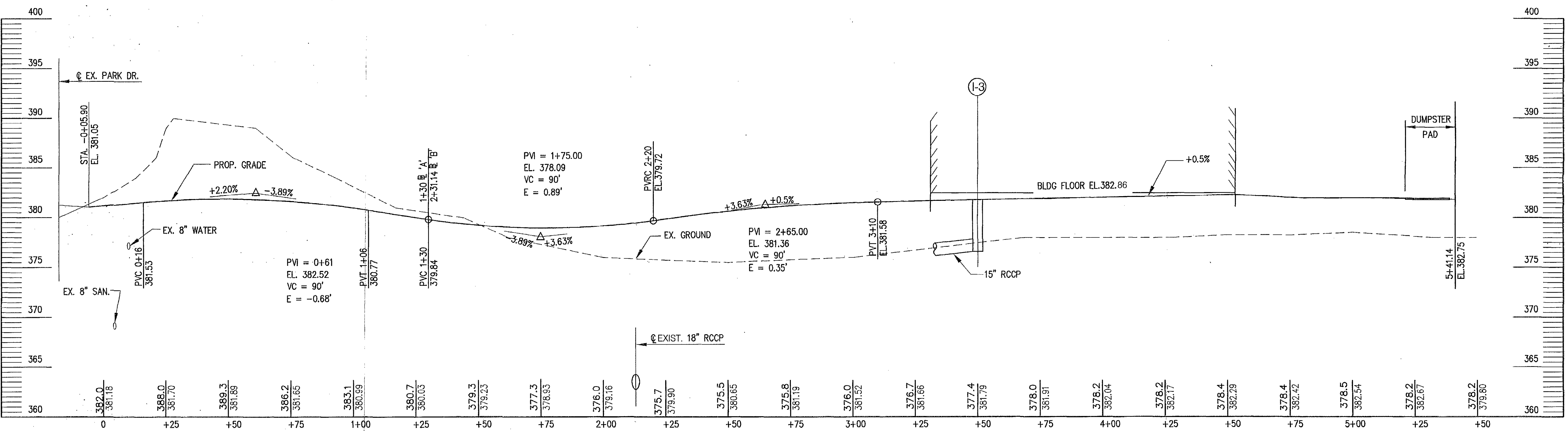
ROAD 'A'
NOT TO SCALE



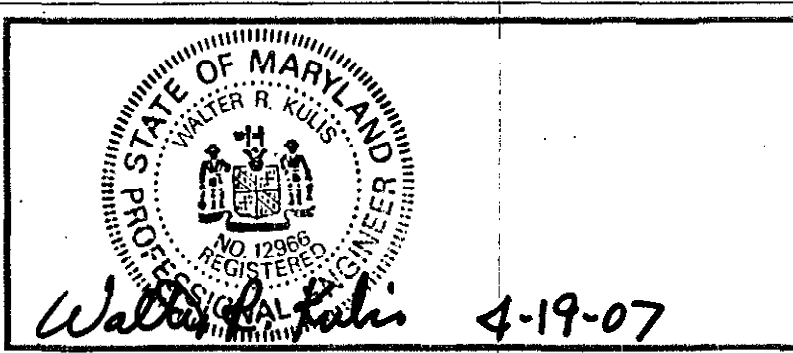
DES: SER			
DRN: CWV			
CHK: WRK			
DATE: 4/07	BY	NO.	DATE

CAPITAL PROJECT NO.
N-3107

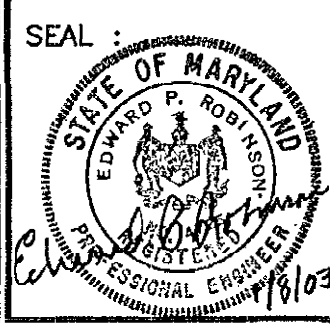
SITE DETAILS 2
ROCKBURN BRANCH PARK
MAINTENANCE FACILITY



APPROVED: DEPARTMENT OF PLANNING AND ZONING					
Director: <i>Mark A. Layton</i>					Date: 3/24/03
Chief, Division of Land Development: <i>Andy Harnish</i>					Date: 3/19/03
Chief, Development Engineering Division: <i>Chris D...</i>					Date: 3/19/03
SUBDIVISION	ROCKBURN BRANCH PARK	SECTION/AREA	N/A	PARCEL NO.	42
LIBER/FOLIO	3505/95	BLOCK NO	4	ZONING	R-20
TAX/MAP	37	GRID	4	ELEC. DIST.	1
CENSUS TR.	6011.01	WATER CODE	D-04	SEWER CODE	2153800



HH ati Architects Engineers and Construction Consultants
8950 Route 108 Suite 218
Columbia Maryland 21045 (410)995-4067 Fax (410)992-1837



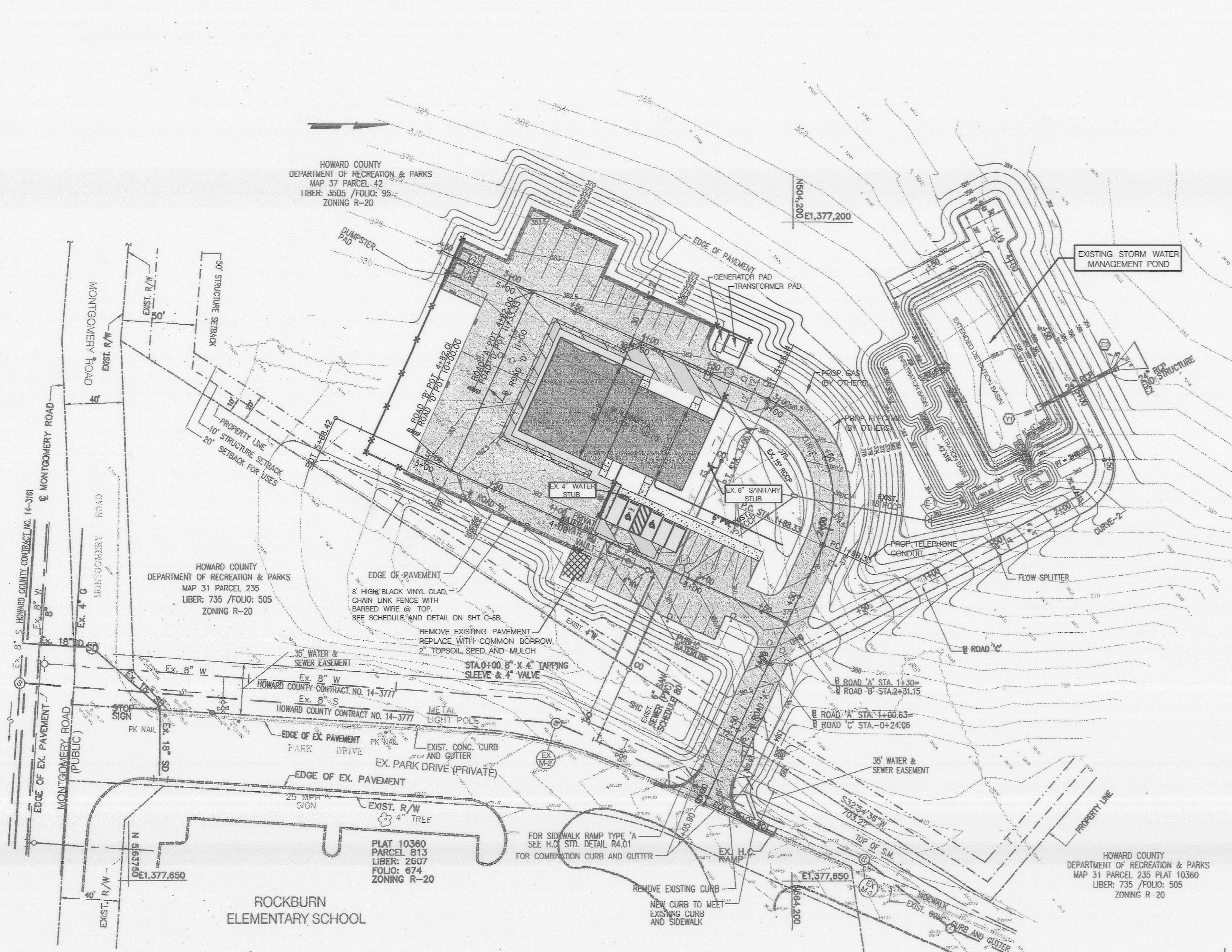
PROGRESSIVE ENGINEERING CONSULTANTS, INC.
ENGINEERS • PLANNERS • SURVEYORS
9160 RED BRANCH ROAD • SUITE E9
COLUMBIA, MD 21045
PHONE: (410) 715-0390 FAX: (410) 715-1745

OWNER
HOWARD COUNTY
DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA MD. 21046

REVISIONS		
NO.	DATE	DESCRIPTION

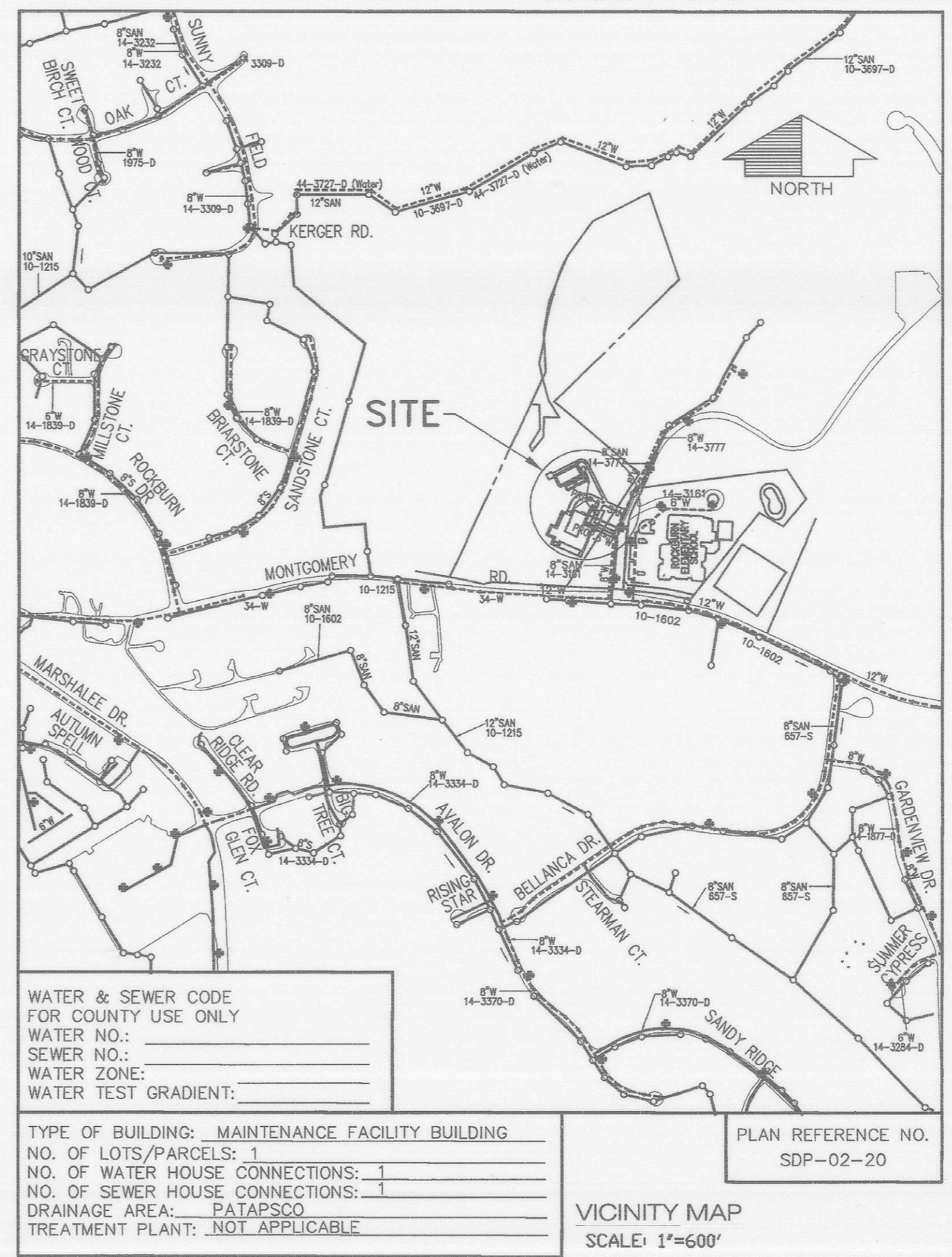
ROADWAY PROFILES
ROCKBURN BRANCH PARK
MAINTENANCE FACILITY
HOWARD COUNTY, MARYLAND
DATE: JANUARY 10, 2003 SCALE: AS SHOWN

CAPITAL PROJECT NO.
 N-3107
C-6
SET SHEET 9 OF 38



- LEGEND:**
- EX WOODS LINE
 - CENTER LINE
 - EX. FENCE
 - PROP. BUILDINGS
 - P-3 PAVEMENTS
 - LIGHT POLE
 - EX. STORM DRAIN
 - EX. SD MAN HOLE
 - EX. SAN. MAN HOLE
 - EX. SAN. SEWER
 - EX. WATER LINE
 - PROP. WATER LINE
 - PROP. SAN. SEWER
 - PROP. STORM DRAIN
 - SOLID SODDING

- GENERAL NOTES**
- APPROXIMATE LOCATIONS OF EXISTING WATER LINES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
 - ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
 - ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
 - EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
 - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 787-9068
 - MISS UTILITY - 1-800-257-7777
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
 - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE.
 - ALL SEWER CONNECTIONS SHALL BE D.I.P. OR P.V.C.
 - T.B. DENOTES TEST BORING.
 - WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
 - ALL WATER MAINS SHALL BE D.I.P., CLASS 52
 - TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
 - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (W1.11 AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153: DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.



WATER & SEWER CODE FOR COUNTY USE ONLY

WATER NO.: _____
 SEWER NO.: _____
 WATER ZONE: _____
 WATER TEST GRADIENT: _____

TYPE OF BUILDING: MAINTENANCE FACILITY BUILDING
 NO. OF LOTS/PARCELS: 1
 NO. OF WATER HOUSE CONNECTIONS: 1
 NO. OF SEWER HOUSE CONNECTIONS: 1
 DRAINAGE AREA: PATAPSCO
 TREATMENT PLANT: NOT APPLICABLE

PLAN REFERENCE NO. SDP-02-20

VICINITY MAP SCALE: 1"=600'

ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Edward B. Robinson
 SIGNATURE OF ENGINEER 2/12/03
 DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE _____ DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: _____
 HOWARD SOIL CONSERVATION DISTRICT _____ DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director: *Thomas A. Wright* 2/24/03
 Date

Chief, Division of Land Development: *Cindy Harvath* 2/19/03
 Date

Chief, Development Engineering Division: *Chad Dammann* 2/12/03
 Date

SUBDIVISION	SECTION/AREA	PARCEL NO.
ROCKBURN BRANCH PARK	N/A	42
LIBER/FOLIO	BLOCK NO	ZONING
3505/95	4	R-20
TAX/MAP	GRID	ELEC. DIST.
37	4	1
CENSUS TR.		
		8011.01
WATER CODE	D-04	SEWER CODE
		2153900

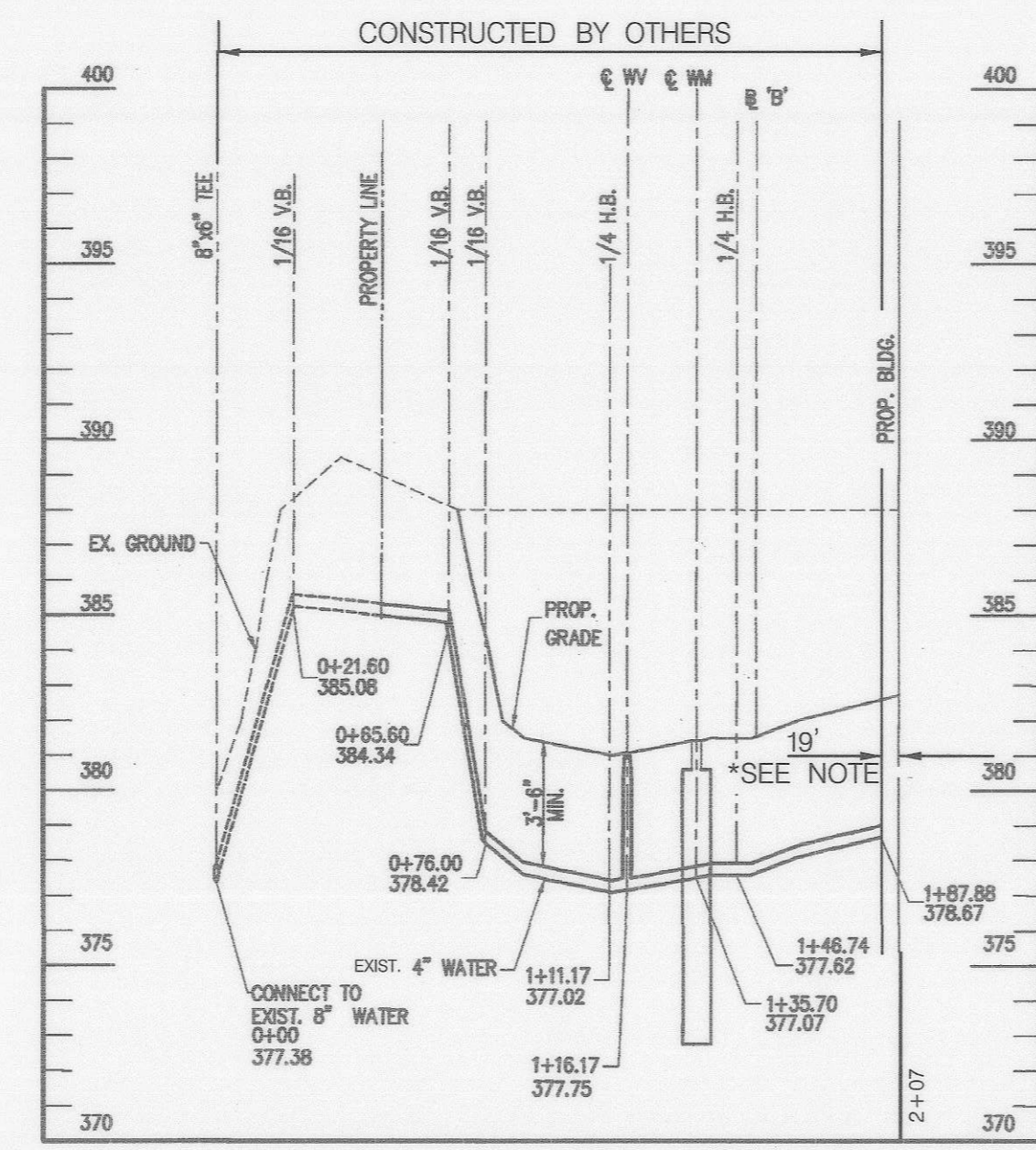
NOTE: BEFORE ORDERING T-CONNECTIONS, TAKE TEST PITS AT CONNECTIONS OF NEW WATER & SEWER LINES TO EXISTING TO CONFIRM LOCATIONS, SIZES & MATERIAL OF EXISTING PIPES.

UTILITY PLAN
 SCALE: 1"=50'-0"

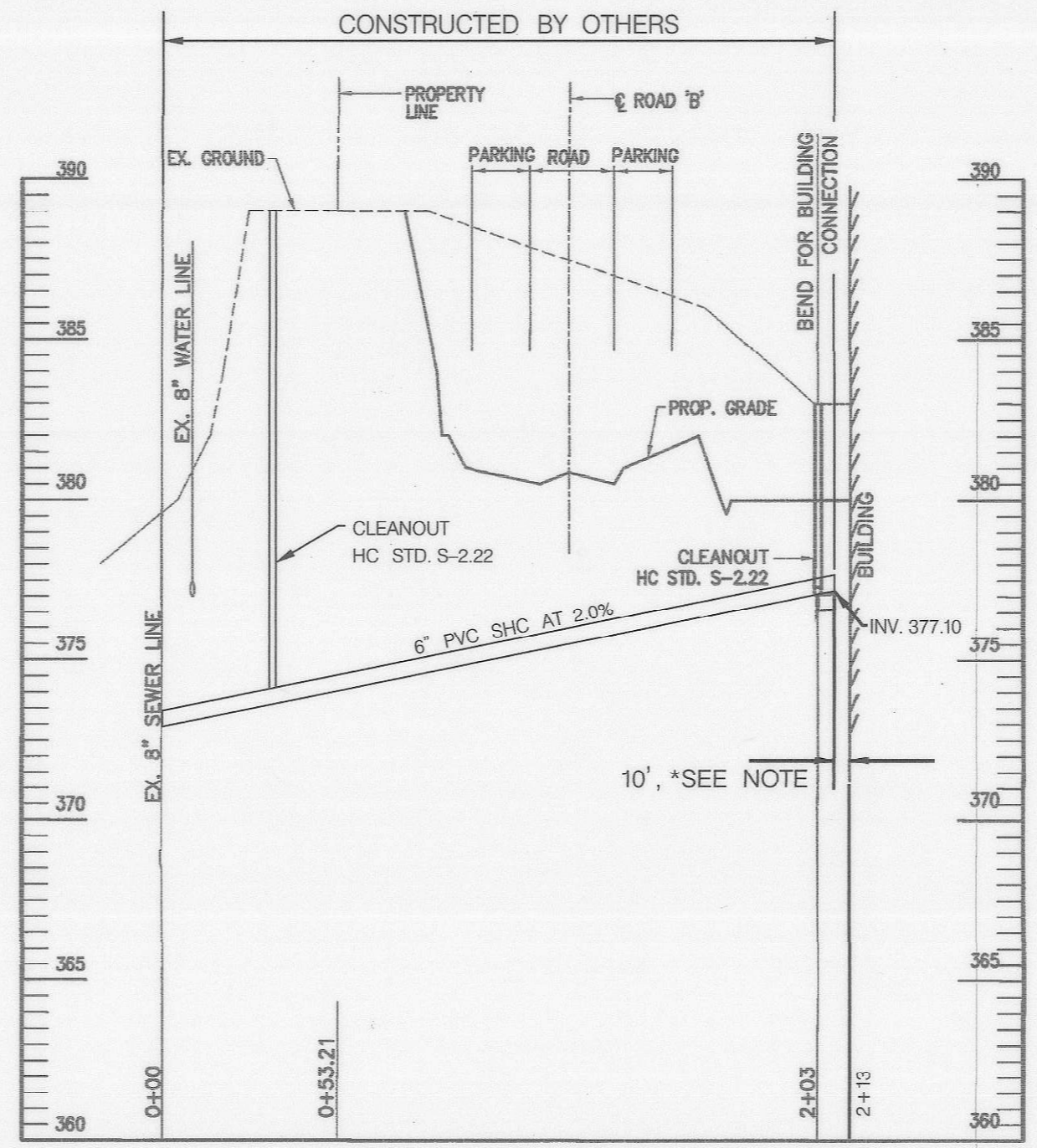
WATER LINE (FOR BUILDING CONNECTION) TABULATION CHART

WATER LINE STATION	APPURTENANCE	ROAD STATION (BASELINE 'A')	OFFSET (BASELINE 'A')	BUTTRISS	
0+00±	8" x 4" TAPPING SLEEVE & VALVE	0+13.15±	96.02± LEFT	HC STD. W 2.23	PUBLIC WATERLINE
1+11.17	1/4 H.B.	1+24.25	96.02± LEFT	HC STD. W 2.24	PUBLIC WATERLINE
1+16.17	4" WATER VALVE	1+24.25	101.02' LEFT		PRIVATE WATERLINE
1+35.70	WATER METER	1+24.25	115.55' LEFT	HC STD. W 3.43	PRIVATE WATERLINE
1+46.74	1/4 H.B.	1+24.25	131.89' LEFT	HC STD. W 2.24	PRIVATE WATERLINE

NOTE: 1. BUTTRISSES FOR VERTICAL BENDS SHALL CONFORM TO HC STANDARD W 2.22. SEE PROFILES THIS SHEET.



WATERLINE PROFILE FOR BUILDING CONNECTION
 SCALE: 1"=50'-0" (HORIZ.)
 1"=5'-0" (VERT.)



PROFILE - PROP. SANITARY SEWER
 SCALE: 1"=20' (HORIZ.)
 1"=5' (VERT.)

NOTE: CONTRACTOR SHALL INSTALL WATER AND SEWER HOUSE CONNECTIONS FROM THE STUB OF EXISTING PIPE, CONSTRUCTED BY OTHERS, TO THE PROPOSED BUILDING FOOTPRINT. THE PROPOSED CONNECTIONS SHALL MATCH EXISTING INSTALLED PIPE AND SHALL BE INSTALLED TO MATCH THE SLOPE OF THE EXISTING PIPE. THE PIPE AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL HOWARD COUNTY STANDARDS AND GENERAL NOTES IN THIS CONTRACT AND SHALL BE INSTALLED TO THE SATISFACTION OF THE ENGINEER.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON 280- AND 281- AND 282- THESE PLANS.

Ray J. Chen
 SIGNATURE OF DEVELOPER 2/12/03
 DATE

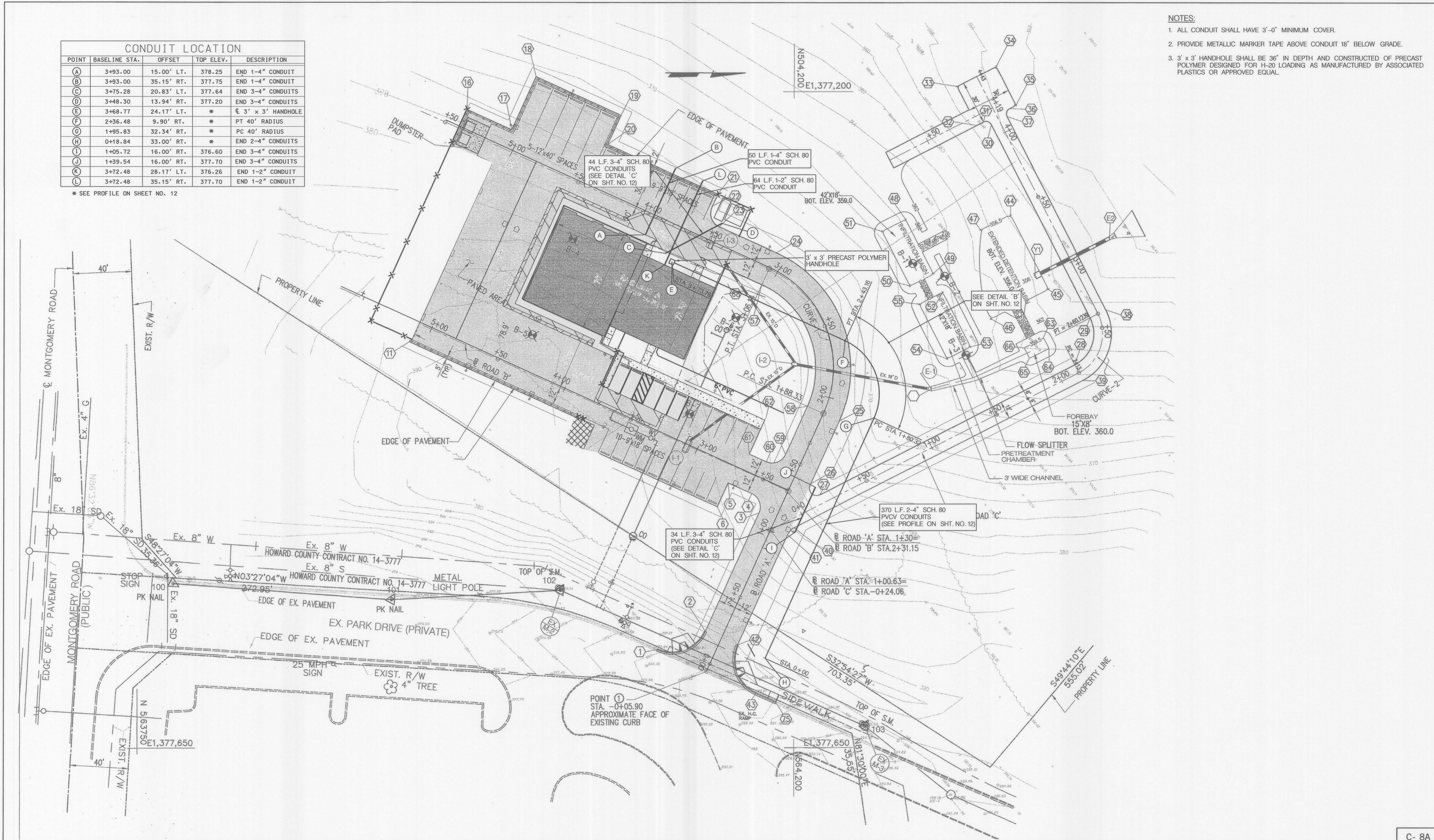
NOTE: FOR STORM DRAIN PROFILES AND SANITARY SEWER SEE SHEET NO. C-7

	Architects Engineers and Construction Consultants 8950 Route 108 Suite 218 Columbia Maryland 21045 (410)995-4067 Fax (410)992-1837		PROGRESSIVE ENGINEERING CONSULTANTS, INC. ENGINEERS • PLANNERS • SURVEYORS 9160 RED BRANCH ROAD • SUITE E9 COLUMBIA, MD 21045 PHONE: (410) 715-0390 FAX: (410) 715-1745	OWNER HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS 7120 OAKLAND MILLS ROAD COLUMBIA MD. 21046	REVISIONS <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE	DESCRIPTION				WATER AND SEWER PLAN ROCKBURN BRANCH PARK MAINTENANCE FACILITY HOWARD COUNTY, MARYLAND DATE: JANUARY 10, 2003 SCALE: AS SHOWN	CAPITAL PROJECT NO. <input type="checkbox"/> N-3107 C-8 SET SHEET 10 OF 38
						NO.	DATE	DESCRIPTION					
	SUBDIVISION: ROCKBURN BRANCH PARK SECTION/AREA: N/A PARCEL NO.: 42 LIBER/FOLIO: 3505/95 BLOCK NO: 4 ZONING: R-20 TAX/MAP: 37 GRID: 4 ELEC. DIST.: 1 CENSUS TR.: 8011.01 WATER CODE: D-04 SEWER CODE: 2153900												

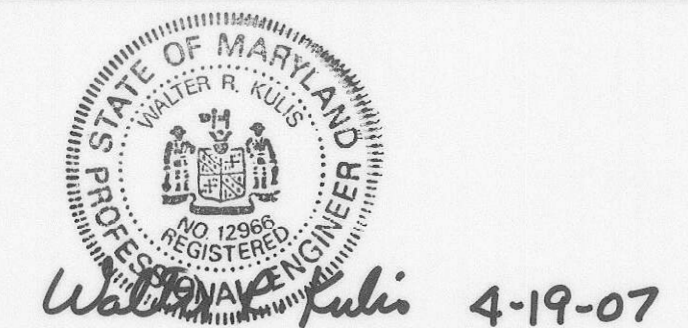
CONDUIT LOCATION				
POINT	BASELINE STA.	OFFSET	TOP ELEV.	DESCRIPTION
A	3+93.00	15.00' LT.	378.25	END 1-4" CONDUIT
B	3+93.00	35.15' RT.	377.75	END 1-4" CONDUIT
C	3+75.28	20.83' LT.	377.64	END 3-4" CONDUITS
D	3+48.30	13.94' RT.	377.20	END 3-4" CONDUITS
E	3+68.77	24.17' LT.	*	3' x 3' HANDHOLE
F	2+36.48	9.90' RT.	*	PT 40' RADIUS
G	1+95.83	32.34' RT.	*	PC 40' RADIUS
H	0+18.84	33.00' RT.	*	END 2-4" CONDUITS
I	1+05.72	16.00' RT.	376.60	END 3-4" CONDUITS
J	1+39.54	16.00' RT.	377.70	END 3-4" CONDUITS
K	3+72.48	28.17' LT.	376.26	END 1-2" CONDUIT
L	3+72.48	35.15' RT.	377.70	END 1-2" CONDUIT

* SEE PROFILE ON SHEET NO. 12

- NOTES:
1. ALL CONDUIT SHALL HAVE 3'-0" MINIMUM COVER.
 2. PROVIDE METALLIC MARKER TAPE ABOVE CONDUIT 18" BELOW GRADE.
 3. 3' x 3' HANDHOLE SHALL BE 36" IN DEPTH AND CONSTRUCTED OF PRECAST POLYMER DESIGNED FOR H-20 LOADING AS MANUFACTURED BY ASSOCIATED PLASTICS OR APPROVED EQUAL.



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DES:	TES			
DRN:	TES			
CHK:	WRK			
DATE:	3/07	BY	NO.	DATE

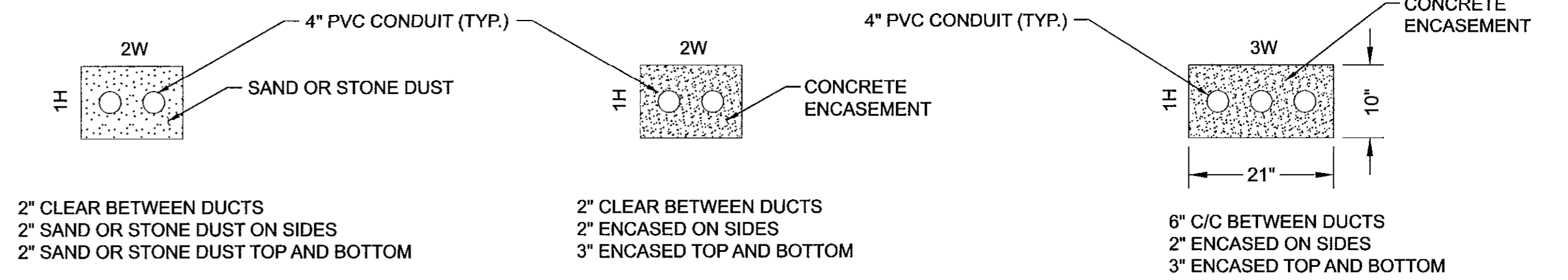
CAPITAL PROJECT NO.
N-3107

SITE UTILITY PLAN
ROCKBURN BRANCH PARK
MAINTENANCE FACILITY

C- 8A
SCALE
AS SHOWN
SHEET
11 OF 38

DETAIL NOTES:

1. TERMINATE CONDUITS WITH COUPLINGS AND PLUGS.
2. BENDS, UNLESS SPECIFIED BY BGE, SHALL BE NO LESS THAN 36" IN RADIUS AND LIMITED TO (1) ONE 90° CHANGE IN DIRECTION IN THE BUILDING.
3. ONLY STANDARD WEIGHT READY TO MIX CONCRETE WILL BE APPROVED FOR ENCASEMENT.
4. NO METALLIC MATERIALS (REBARS, HOLD DOWN WIRES, ETC.) SHALL BE PERMITTED IN SPACES BETWEEN LOW VOLTAGE DUCTS.
5. A MANDREL (1/2" SMALLER IN DIAMETER THAN THE CONDUIT AND 6" LONG) SHALL BE PULLED THROUGH EACH DUCT FOLLOWED BY A POLYOLEFIN (1,500 LB TEST) PULL-IN CORD WHICH SHALL REMAIN IN EACH DUCT.
6. STRENGTH OF CONCRETE ENCASEMENT SHALL BE f_c 3,000 PSI MINIMUM.

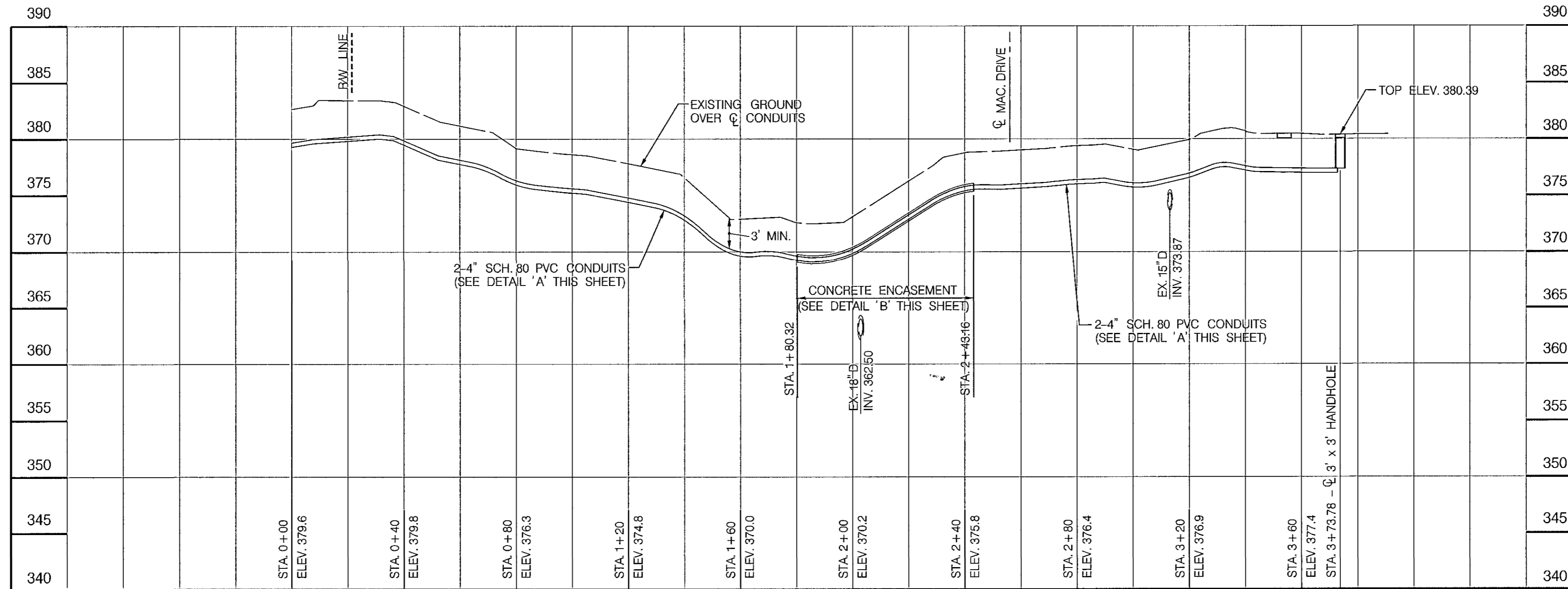


DETAIL 'A'

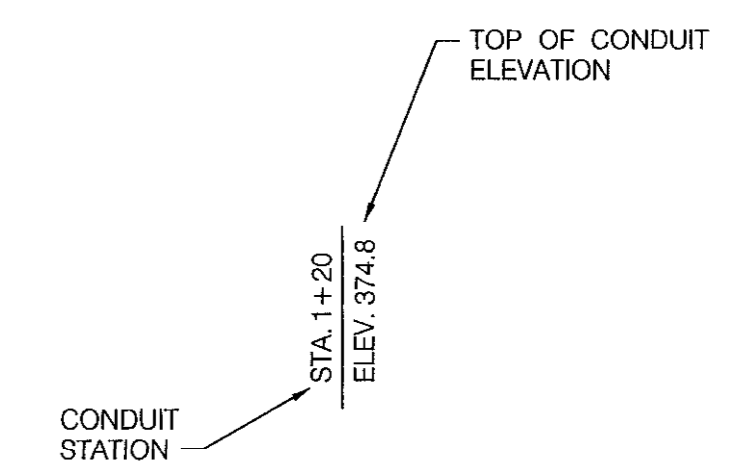
DETAIL 'B'

DETAIL 'C'

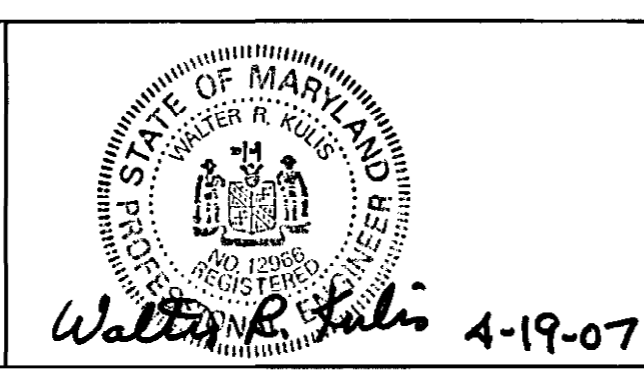
TYPICAL CONDUIT DETAILS
NOT TO SCALE



UTILITY PROFILE
SCALE: HOR: 1" = 20'
VERT. 1" = 5'



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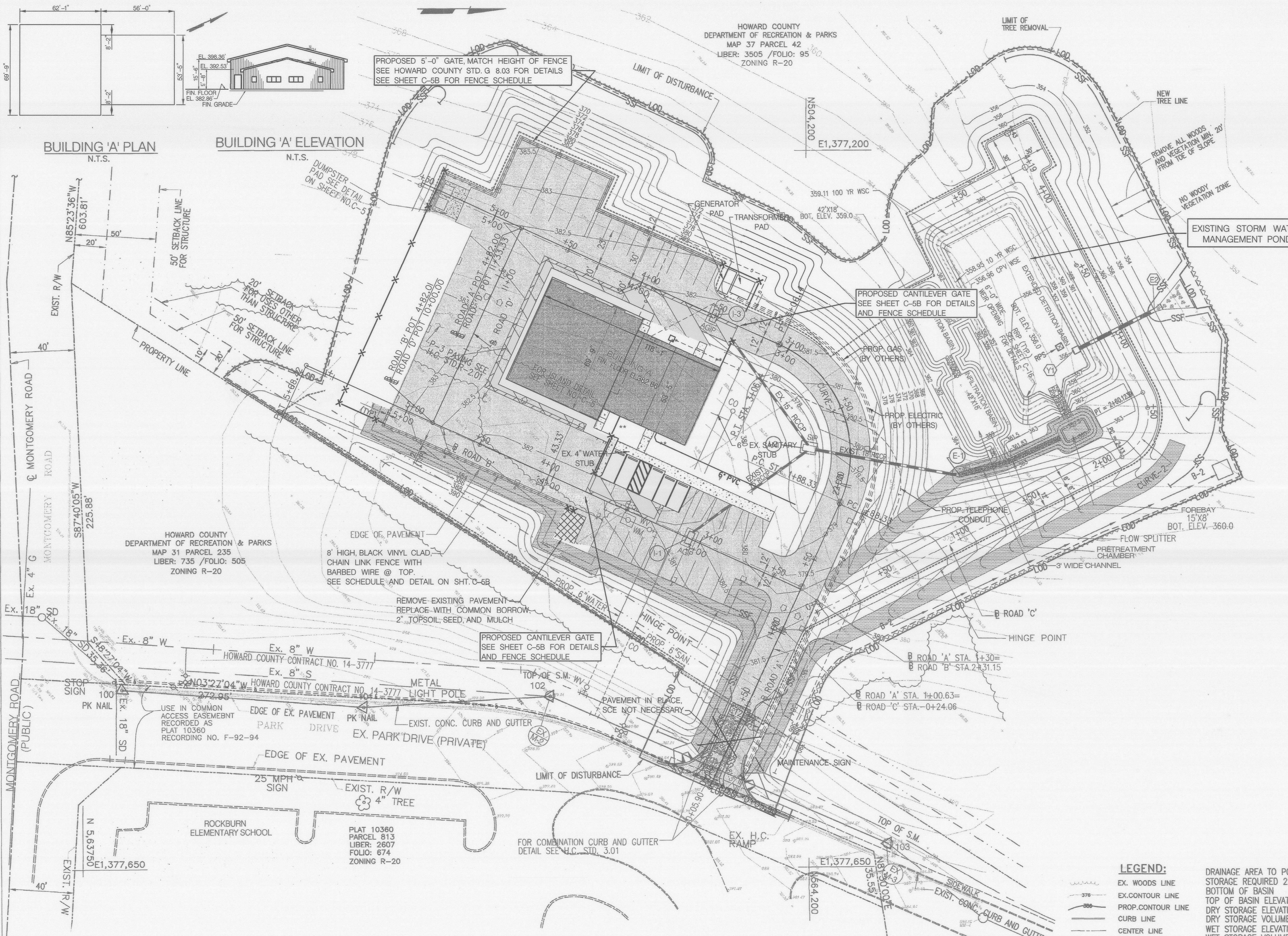


DES:	TES			
DRN:	TES			
CHK:	WRK			
DATE:	3/07	BY	NO.	DATE

CAPITAL PROJECT NO.
N-3107

SITE UTILITY PROFILE AND DETAILS
**ROCKBURN BRANCH PARK
MAINTENANCE FACILITY**

C- 8B
SCALE
AS SHOWN
SHEET
12 OF 38



HOWARD COUNTY
DEPARTMENT OF RECREATION & PARKS
MAP 37 PARCEL 42
LIBER: 3505 /FOLIO: 95
ZONING R-20

PROPOSED 5'-0" GATE, MATCH HEIGHT OF FENCE
SEE HOWARD COUNTY STD. G 8.03 FOR DETAILS
SEE SHEET C-5B FOR FENCE SCHEDULE

PROPOSED CANTILEVER GATE
SEE SHEET C-5B FOR DETAILS
AND FENCE SCHEDULE

PROPOSED CANTILEVER GATE
SEE SHEET C-5B FOR DETAILS
AND FENCE SCHEDULE

- LEGEND:**
- EX. WOODS LINE
 - EX. CONTOUR LINE
 - PROP. CONTOUR LINE
 - CURB LINE
 - CENTER LINE
 - TRAVERSE POINT
 - EX. FENCE
 - PROP. BUILDINGS
 - P-3 PAVEMENTS

- DRAINAGE AREA TO POND = 2.5 Acres
STORAGE REQUIRED 2.5 x 3600 = 0.2 Ac Ft.
BOTTOM OF BASIN = 355.00
TOP OF BASIN ELEVATION = 362.18
DRY STORAGE ELEVATION = 358.13
DRY STORAGE VOLUME = 4500 CU.F.
WET STORAGE ELEVATION = 357.30
WET STORAGE VOLUME = 2250 CFT
CLEAN OUT ELEVATION = 356.89
TOP OF BERM WIDTH DIMENSION = 12.00
Q₂ EXISTING = 2.0 CFS
Q₂ PROPOSED = 0.63 CFS

PLAN
SCALE: 1"=30'

HOWARD COUNTY
DEPARTMENT OF RECREATION & PARKS
MAP 31 PARCEL 2235 PLAT 10560
LIBER: 735 /FOLIO: 505
ZONING R-20

SEDIMENT CONTROL & POND CONSTRUCTION

DEVELOPER

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 day of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Jan M. Jan
Signature of Developer
Print name below signature

2/21/04
Date

ENGINEER

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

Edward P. Robinson
Signature of Engineer
Print name below signature

1/8/03
Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Jim May 10
USDA Natural Resources
Conservation Services

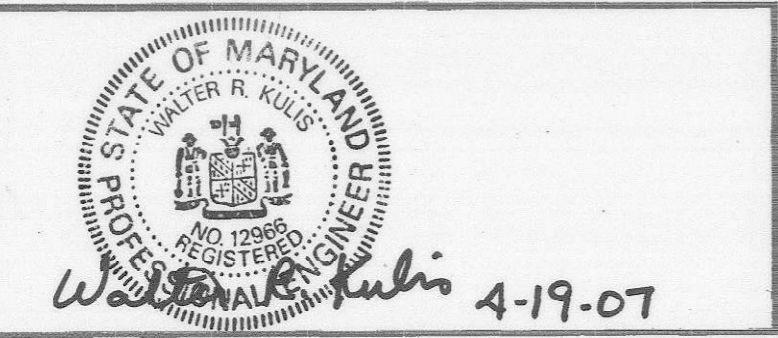
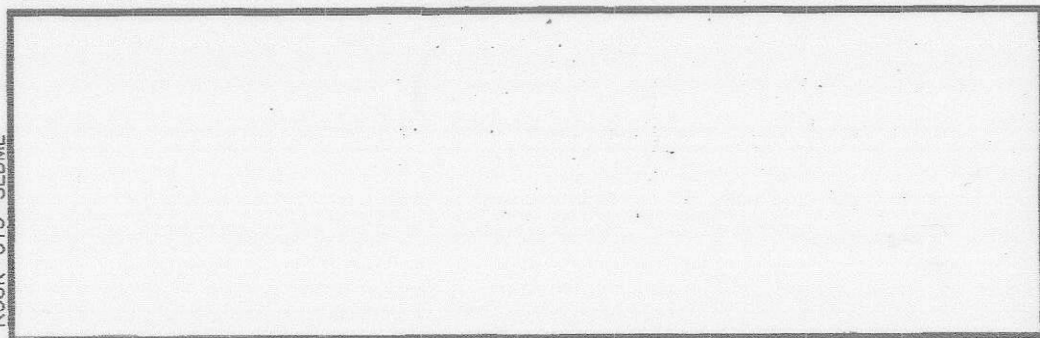
3/10/03
Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard Soil Conservation District
Signature of District

3/10/03
Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING					
<i>David A. Long</i> Director					2/21/04 Date
<i>Wendy Horvath</i> Chief, Division of Land Development					3/19/03 Date
<i>Paul Damann</i> Chief, Development Engineering Division					3/12/03 Date
SUBDIVISION	SECTION/AREA	N/A	PARCEL NO.		
ROCKBURN BRANCH PARK			42		
LIBER/FOLIO	BLOCK NO	ZONING	TAX/MAP	GRID	ELEC. DIST. CENSUS TR.
3505/95	4	R-20	37	4	1 6011.01
WATER CODE	D-04			SEWER CODE	2153800



lati Architects Engineers
and Construction Consultants
8950 Route 108 Suite 218
Columbia Maryland 21045 (410)995-4067 Fax (410)992-1837



PROGRESSIVE ENGINEERING CONSULTANTS, INC.
ENGINEERS • PLANNERS • SURVEYORS
9160 RED BRANCH ROAD • SUITE E9
COLUMBIA, MD 21045
PHONE: (410) 715-0390 FAX: (410) 715-1745

OWNER
HOWARD COUNTY
DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA MD. 21046

REVISIONS		
NO.	DATE	DESCRIPTION

EROSION AND SEDIMENT CONTROL PLAN
ROCKBURN BRANCH PARK
MAINTENANCE FACILITY
HOWARD COUNTY, MARYLAND
DATE: JANUARY 10, 2003 SCALE: AS SHOWN

CAPITAL PROJECT NO.
 N-3107
C-15
SET SHEET 13 OF 38

**HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
- All vegetative and structural practices are to be installed according to the provisions to this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes steeper than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol 1, Chapter 7 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec.G). Temporary stabilization with mulch alone shall only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 - Total Area of Site = 22 Acres
 - Area Disturbed = 3.76 Acres
 - Area to be roofed or paved = 1.35 Acres
 - Area to be vegetatively stabilized = 2.41 Acres
 - Total Cut = 9270 C.Y.
 - Total Fill = 11,226 C.Y. (Includes 15% for shrinkage)
 - Offsite waste/borrow area location = SITE WITH AN AN ACTIVE GRADING PERMIT
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspecting approvals may not be authorized until this initial approval by the inspecting agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

TOPSOIL

Topsoil: - Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications, typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

Topsoil Specifications - Soil to be used as topsoil must meet the following:

Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of constricting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash or other materials larger than a 1 1/2" in diameter.

Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons/acre dolomitic limestone (92lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
- Acceptable - Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding - For the periods March 1 - April 30 and August 1 - October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 - July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 - February 28, protect site by: Option 1 - Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option 2 - Use sod. Option 3 - Seed with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance - Inspect all seeding areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seedbed preparation: - Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

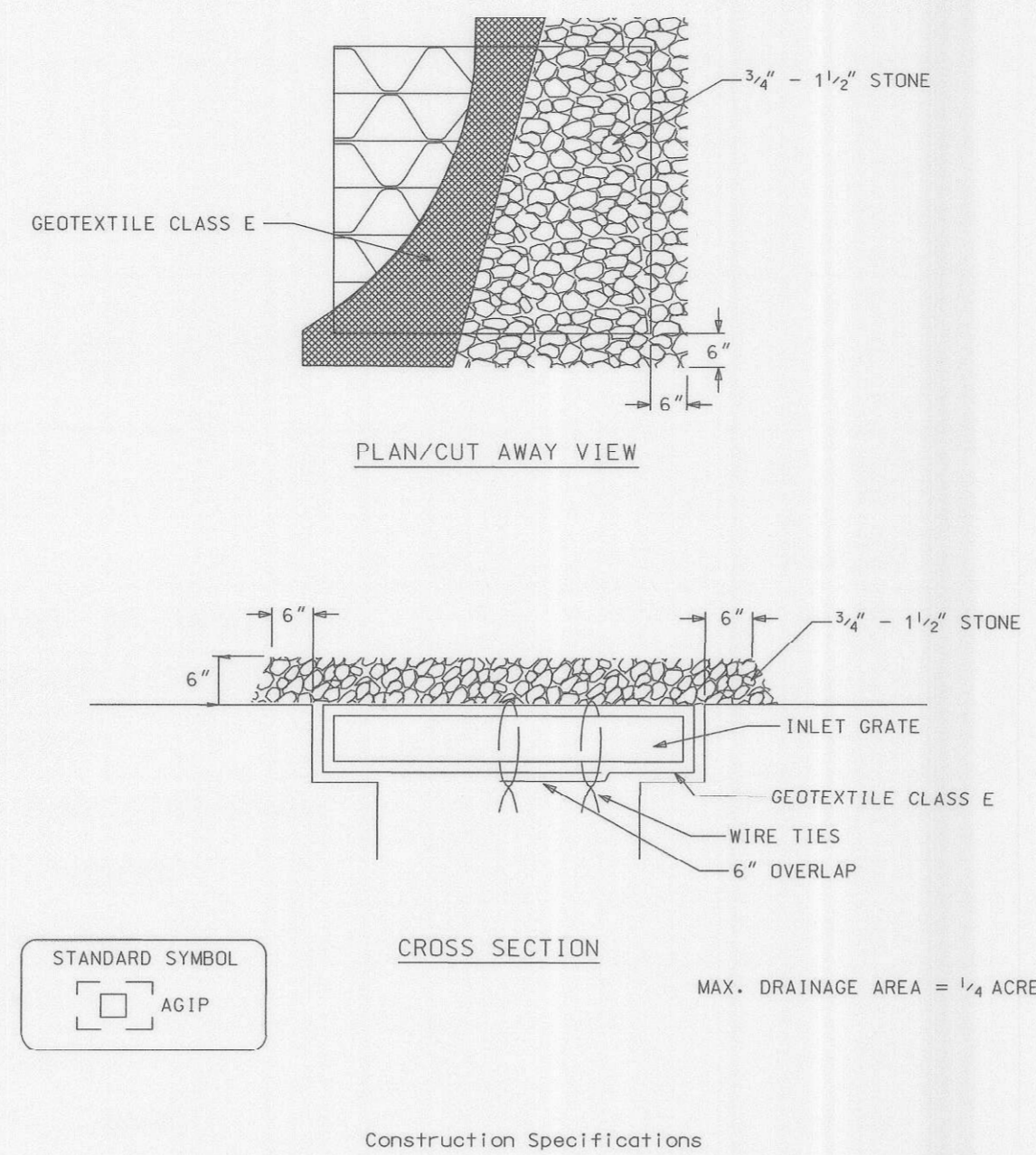
Soil Amendments: - Apply 600 lbs/acre 10-10-10 fertilizer (14lbs/1000 sq. ft.)

Seeding: - For periods March 1 - April 30 and from August 15 - October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 - August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 - February 18, protect site by applying 2 tons/acre of well-anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: - Apply 1-1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL additional rates and methods not covered.

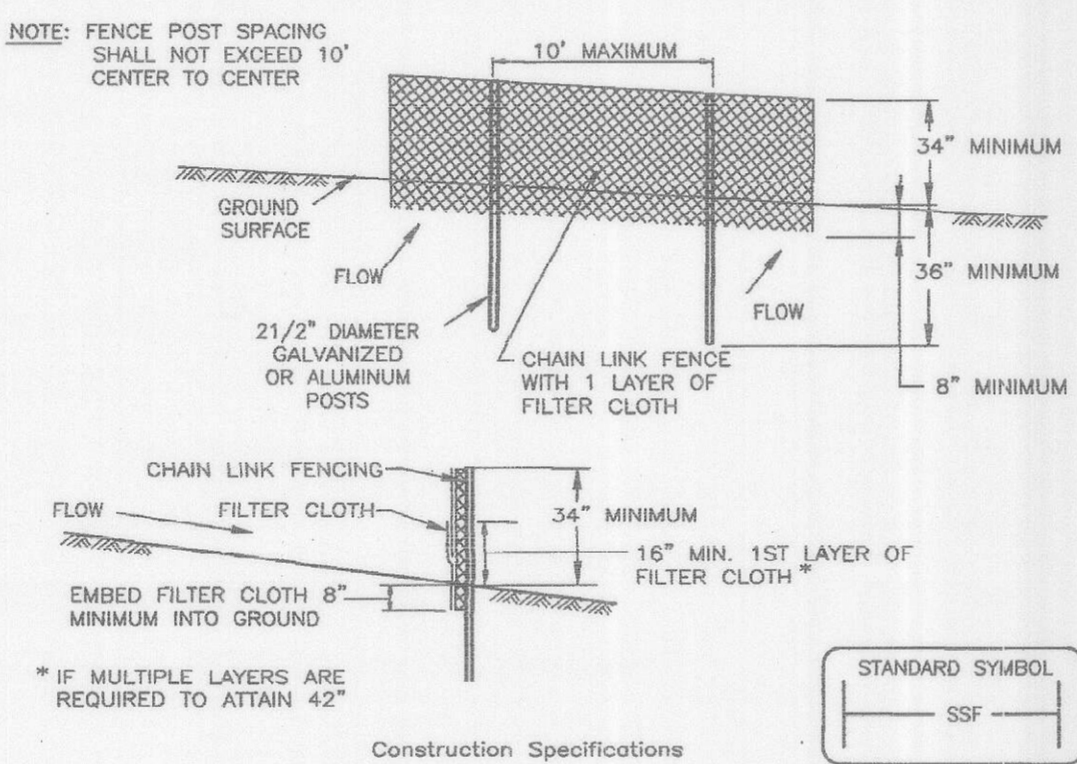
DETAIL 23B - AT GRADE INLET PROTECTION



- Construction Specifications
- Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
 - Place 3/4" to 1 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 5A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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DETAIL 33 - SUPER SILT FENCE



- Construction Specifications
- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
 - Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
 - Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
 - Filter cloth shall be embedded a minimum of 8" into the ground.
 - When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
 - Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
 - Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft ² /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

SEDIMENT CONTROL & POND CONSTRUCTION

DEVELOPER

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

James P. ...
Signature of Developer
Print name below signature

2/21/03
Date

ENGINEER

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

Edward P. Robinson
Signature of Engineer
Print name below signature

2/12/03
Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Jin Nguyen
USDA Natural Resources
Conservation Services

3/10/03
Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard Soil Conservation District
Howard Soil Conservation District

3/10/03
Date

SEQUENCE OF CONSTRUCTION

- OBTAIN PROPER PERMITS, NOTIFY HOWARD COUNTY DEPARTMENT OF PERMITS, SEDIMENT CONTROL DIVISION REPRESENTATIVE AS PER NOTE 1 OF SEDIMENT CONTROL NOTES.
- AFTER RECEIVING PERMISSION FROM INSPECTOR TO PROCEED, INSTALL ALL REQUIRED EROSION AND SEDIMENT CONTROL FACILITIES.
- INSTALL TEMPORARY CHAIN-LINK FENCE AND GATES TO SECURE SITE.
- INSTALL UNDERGROUND ELECTRIC, GAS, AND COMMUNICATIONS CONDUITS; AND EXTENSION OF THE WATER AND SEWER HOUSE CONNECTIONS TO CONNECTION POINT WITH BUILDING.
- GRADE BUILDING TO SUBGRADE LEVEL.
- CONSTRUCT FOUNDATION FOR BUILDING
- CONSTRUCT TRANSFORMER AND GENERATOR PAD INCLUDING GRADING; AND INSTALL TRANSFORMER, GENERATOR, AND RELATED EQUIPMENT
- CONSTRUCT MAINTENANCE BUILDING AS WORK PROGRESSES ON OTHER FEATURES OF PROJECTS.
- PLACE GRANULAR SUBBASE MATERIAL AND ASPHALTIC BASE COURSE ON ROAD 'A' AND PARKING LOT WHERE PROP. FULL DEPTH PAVEMENT IS REQUIRED. WEDGELEVEL PAVEMENT WHERE REQUIRED.
- GRADE ROAD 'B' TO SUBGRADE AND PLACE GRANULAR SUBBASE AND ASPHALTIC BASE COURSE WHERE PROP. FULL DEPTH PAVEMENT IS REQUIRED. WEDGELEVEL PAVEMENT WHERE REQUIRED.
- INSTALL SITE UTILITIES FOR SITE LIGHTING AND PROPOSED ENTRANCE SIGN
- INSTALL PROPOSED CONCRETE SIDEWALKS AND ISLAND.
- INSTALL LIGHTING POLES AND FIXTURES
- LAY PAVEMENT SURFACE COURSE FOR ROADS AND PARKING LOT.
- CONSTRUCT FENCE AND GATES
- REMOVE TEMPORARY CHAIN-LINK FENCE AND GATES.
- PROVIDE PERMANENT SEEDING AND MULCHING.
- REMOVE EROSION AND SEDIMENT CONTROL FACILITIES WITH CONCURRENCE OF COUNTY.

Reviewed for HOWARD SCD and meet Technical Requirements.

U.S.D.A. - Natural Resources Conservation Service _____ Date _____

The development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT _____ Date _____

Howard SCD _____ Date _____

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with requirements of the Howard Soil Conservation District."

Edward P. Robinson
Signature of Engineer (Print name below signature) _____ Date 1/8/03

DEVELOPER'S CERTIFICATE

"I/We Certify that all development and construction will be done according to this plan and that any responsible personal involved in the construction project will have a certificate of Attendance at the Department of the Environment Approved Training Program for the Control of sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by Howard Soil Conservation District"

James P. ...
Signature of Developer (Print name below signature) _____ Date 2/21/03

APPROVED: DEPARTMENT OF PLANNING AND ZONING

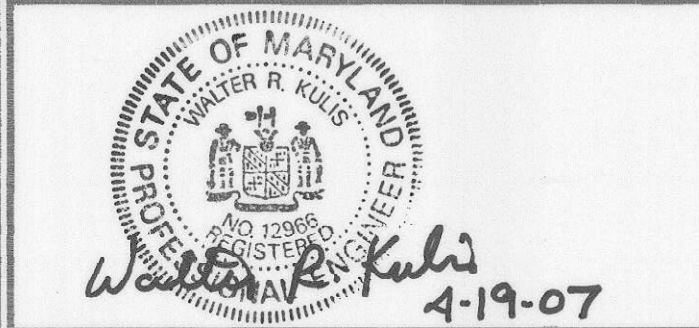
James P. ... 2/24/03
Director Date

Edward P. Robinson 3/14/03
Chief, Division of Land Development Date

Edward P. Robinson 3/14/03
Chief, Development Engineering Division Date

SUBDIVISION	ROCKBURN BRANCH PARK	SECTION/AREA	N/A	PARCEL NO.	42
LIBER/FOLIO	3505/95	BLOCK NO	4	ZONING	R-20
TAX/MAP	37	GRID	4	ELEC. DIST.	1
CENSUS TR.	6011.01	SEWER CODE	2153800	WATER CODE	D-04

ROCK-C16-SDNOTES



lati Architects Engineers and Construction Consultants

8950 Route 108 Suite 218
Columbia Maryland 21045 (410)995-4067 Fax (410)992-1837



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9160 RED BRANCH ROAD • SUITE E9
COLUMBIA, MD 21045
PHONE: (410) 715-0390 FAX: (410) 715-1745

OWNER

HOWARD COUNTY
DEPARTMENT OF RECREATION AND PARKS

7120 OAKLAND MILLS ROAD
COLUMBIA MD. 21046

REVISIONS

NO.	DATE	DESCRIPTION

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS - I

ROCKBURN BRANCH PARK MAINTENANCE FACILITY

HOWARD COUNTY, MARYLAND

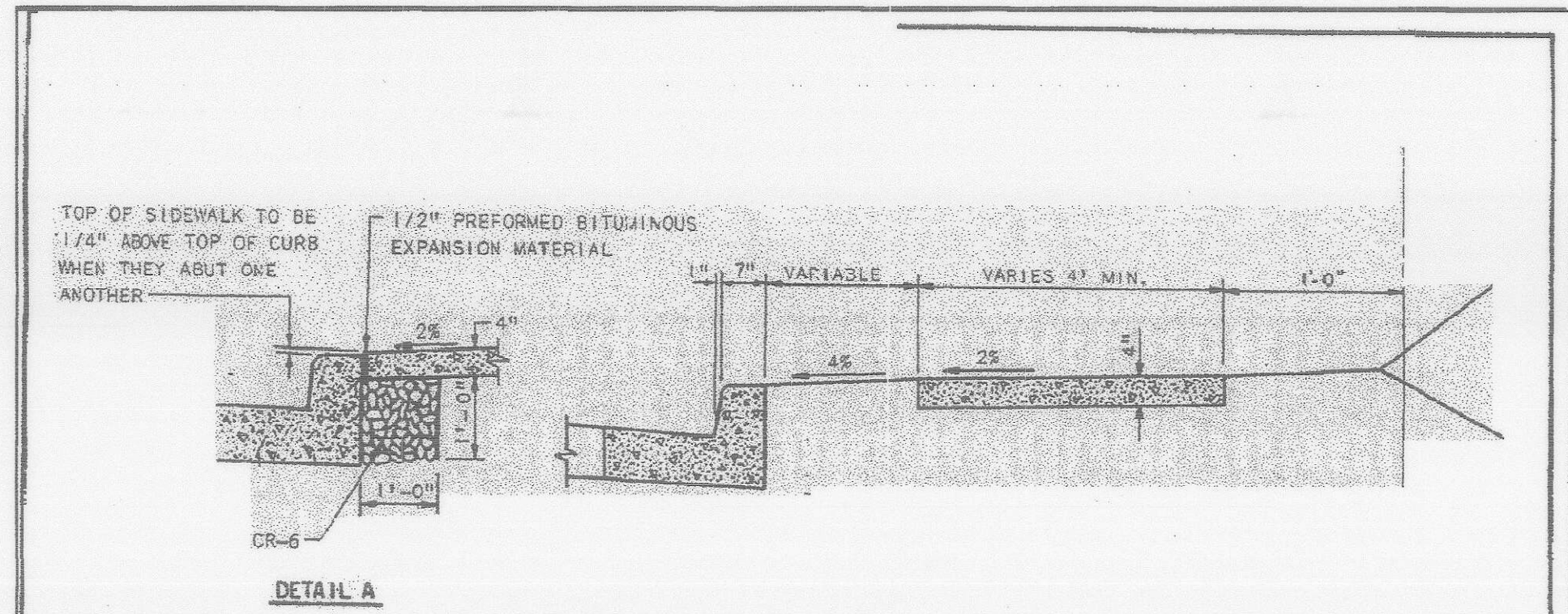
DATE: JANUARY 10, 2003 SCALE:

CAPITAL PROJECT NO.

N-3107

C-16

SET SHEET 14 OF 38



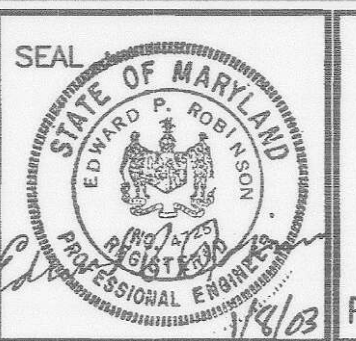
DETAIL A

- NOTES:
1. SIDEWALK TO BE SCRIBED IN 5' MAXIMUM SQUARES.
 2. EXPANSION JOINTS ACROSS THE SIDEWALK NOT TO BE MORE THAN 10' APART.
 3. 1 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK.
 4. CONCRETE TO BE MIX NO. 2.
 5. WHEN SIDEWALK ABUTS CURB, WALK SHALL BE 1/4" ABOVE CURB WITH 1 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL BETWEEN SIDEWALK AND CURB AND RESTING ON A COMPACTED CRUSHED STONE BASE. SEE DETAIL A THIS SHEET.
 6. ON LONGITUDINAL SIDEWALK GRADES OF 2% OR GREATER, A CONCRETE HEADER, 6" THICK AND 6" DEEP BELOW THE NORMAL 4" SIDEWALK THICKNESS SHALL BE CONSTRUCTED FOR THE FULL WIDTH OF THE SIDEWALK AT INTERVALS OF 48 FEET. THE HEADERS SHALL BE PLACED AT EXPANSION JOINT LOCATIONS AND SHALL BE MONOLITHIC WITH THE SIDEWALK.

HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS Approved: <i>[Signature]</i> 1-10-03 Chief-Dir. of Engr. Date	CONCRETE SIDEWALK	REV. JAN. 1997 REV. JAN. 1999 DRAWN BY W. T. BALLARD CHECKED BY J. L. R. NO SCALE R-3.08
---	--------------------------	---

APPROVED: DEPARTMENT OF PLANNING AND ZONING													
<i>[Signature]</i> Director						2/24/03 Date							
<i>[Signature]</i> Chief, Division of Land Development						2/19/03 Date							
<i>[Signature]</i> Chief, Development Engineering Division						2/12/03 Date							
SUBDIVISION	ROCKBURN BRANCH PARK	SECTION/AREA	N/A	PARCEL NO.	42								
LIBER/FOLIO	3505/95	BLOCK NO.	4	ZONING	R-20	TAX/MAP	37	GRID	4	ELEC. DIST.	1	CENSUS TR.	6011.01
WATER CODE	D-04						SEWER CODE	2153800					

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 8950 Route 108 Suite 218
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OWNER
 HOWARD COUNTY
 DEPARTMENT OF RECREATION AND PARKS
 7120 OAKLAND MILLS ROAD
 COLUMBIA MD. 21046

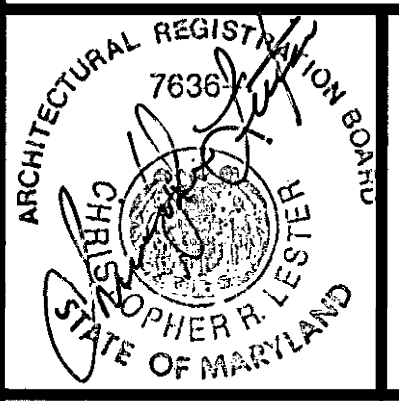
REVISIONS		
NO.	DATE	DESCRIPTION

HOWARD COUNTY STANDARD DETAILS
 ROCKBURN BRANCH PARK
 MAINTENANCE FACILITY
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 10, 2003 SCALE: NONE

CAPITAL PROJECT NO.
 N-3107
C-19
 SET SHEET 16 OF 38



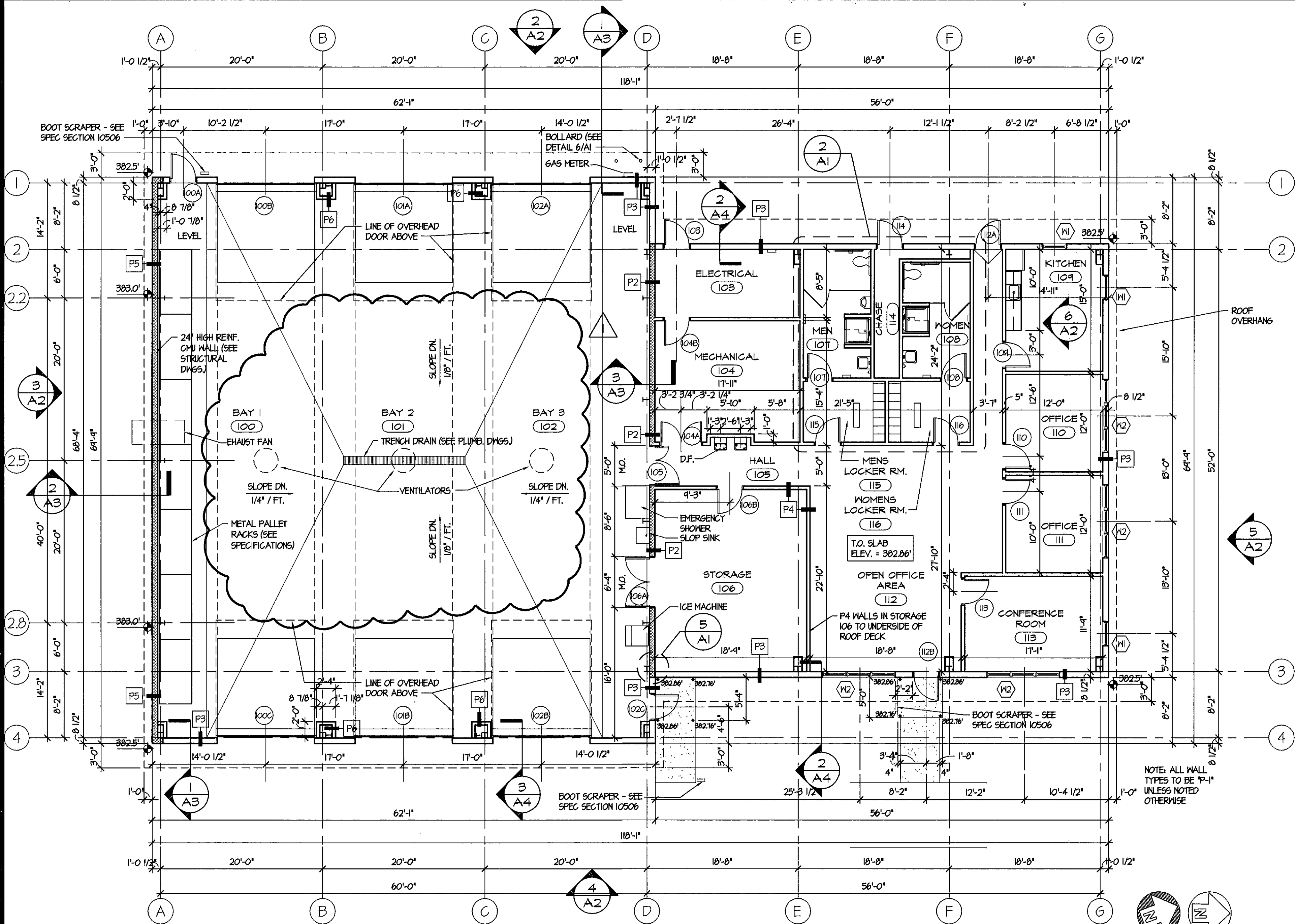
George Vaeth Associates, Inc.
 Architecture • Interior Design
 5501 Twin Knolls Rd., Suite 108
 Columbia, Maryland 21045
 Tel. (410) 997-1000 Fax (410) 997-2719
 Email gva@vaeth.com



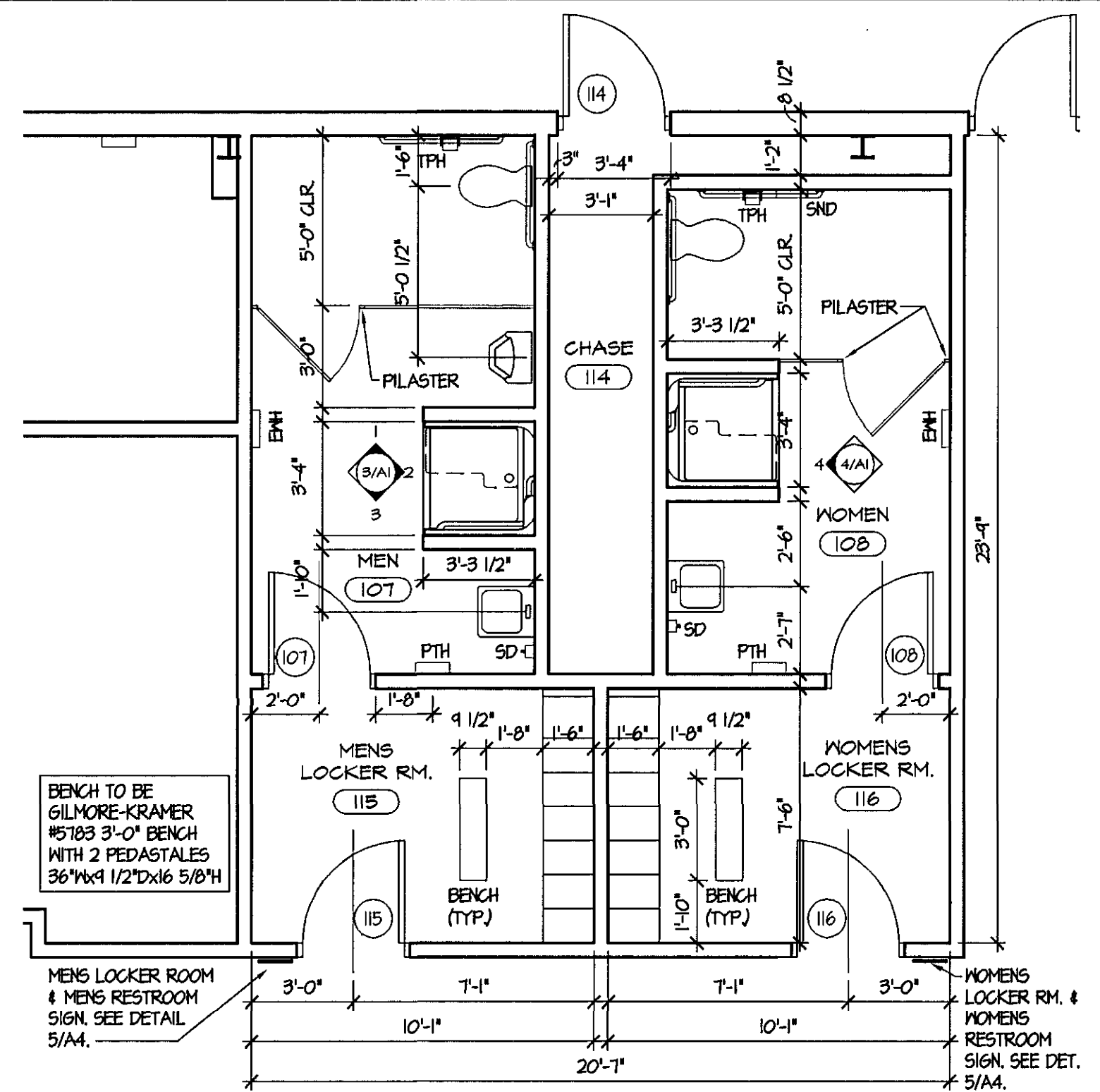
KCI TECHNOLOGIES INC.
 ENGINEERS • PLANNERS • SURVEYORS
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 757 Frederick Road, Suite 300
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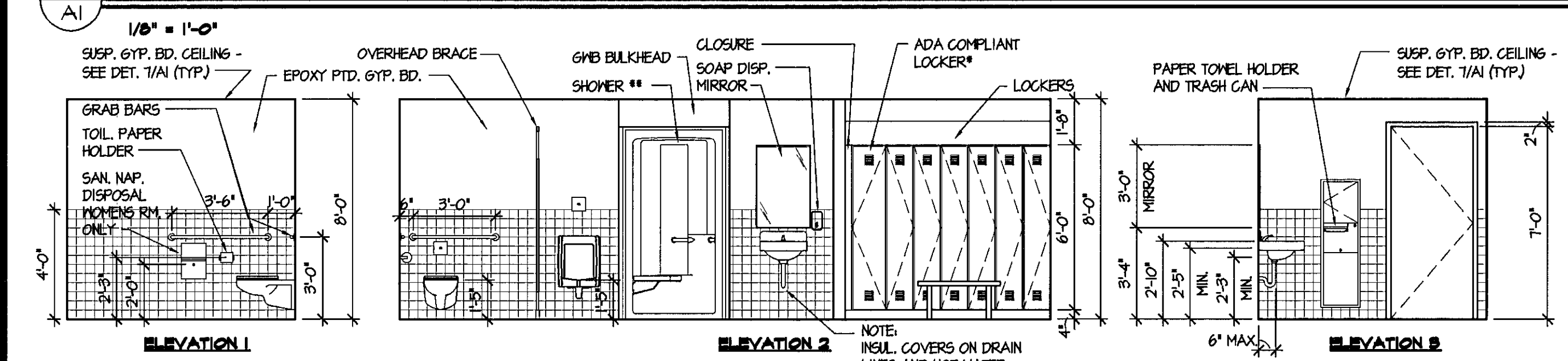
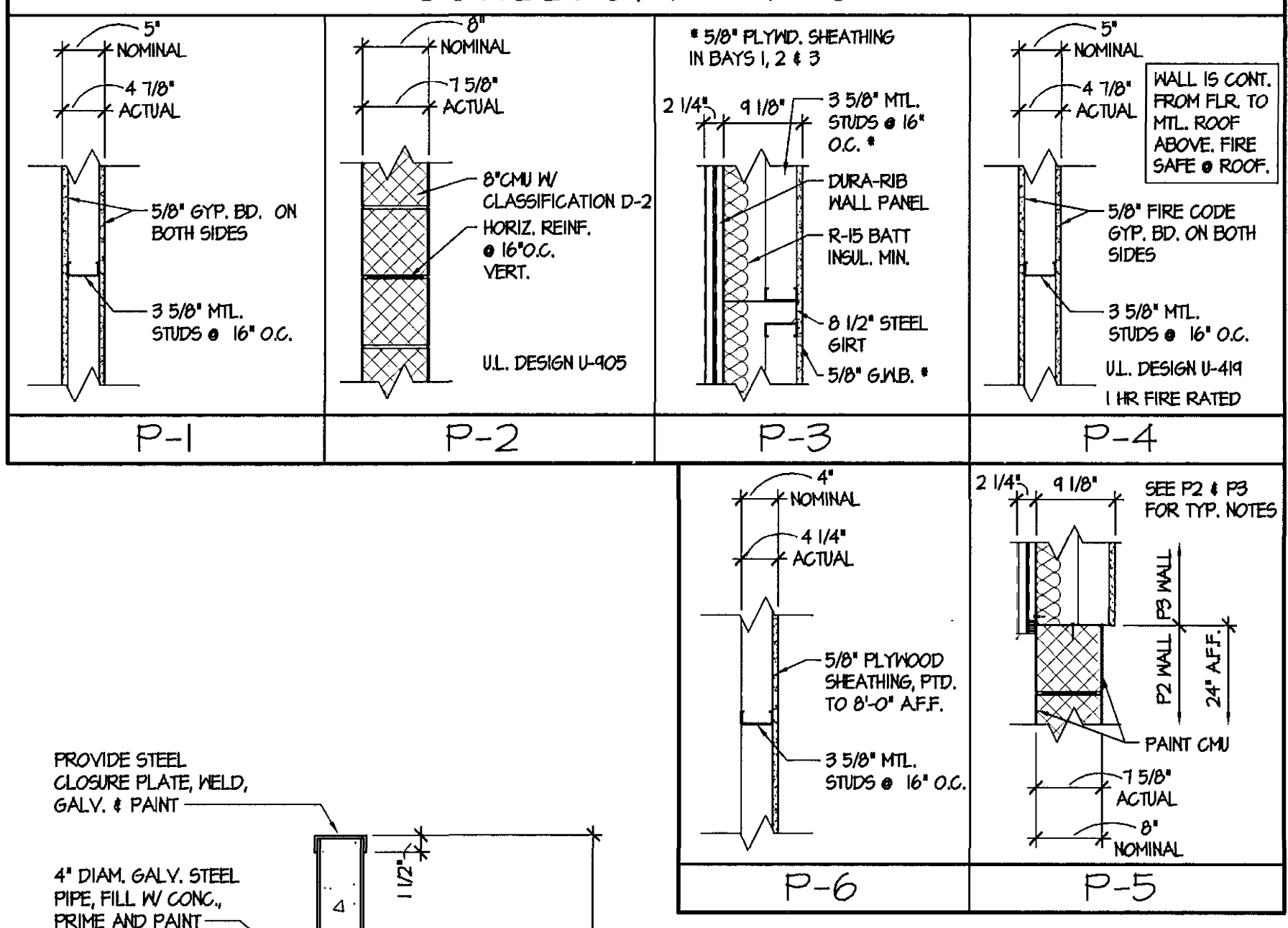


FLOOR PLAN

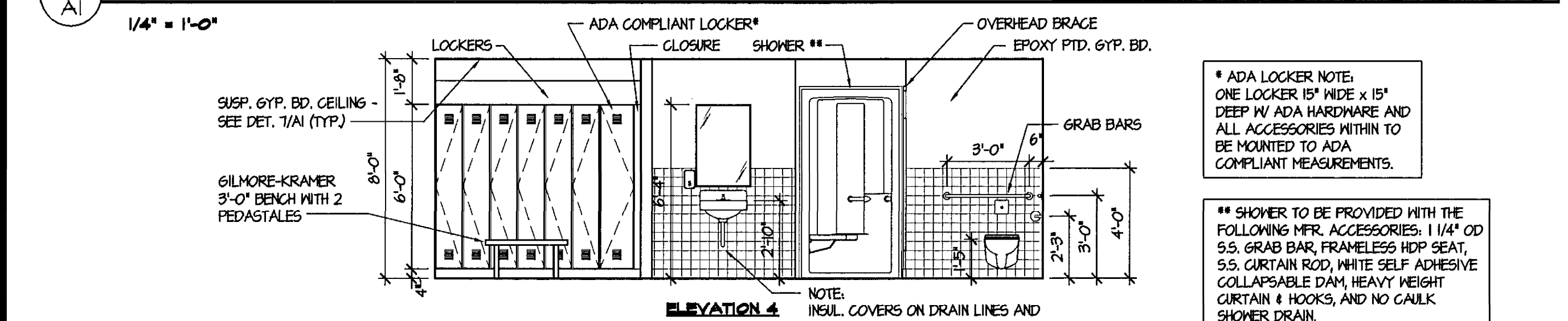


ENLARGED TOIL. RM. PLAN

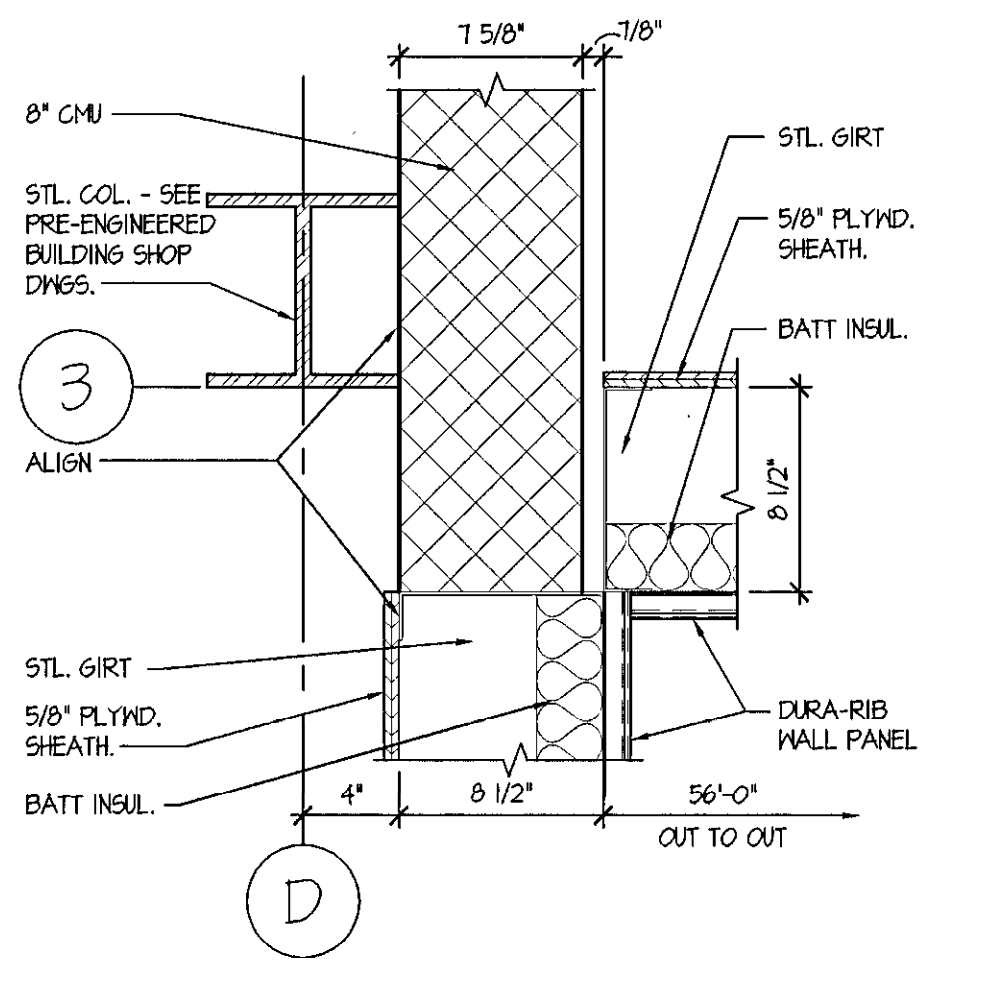
PARTITION SCHEDULE
 SCALE: 3/4" = 1'-0"



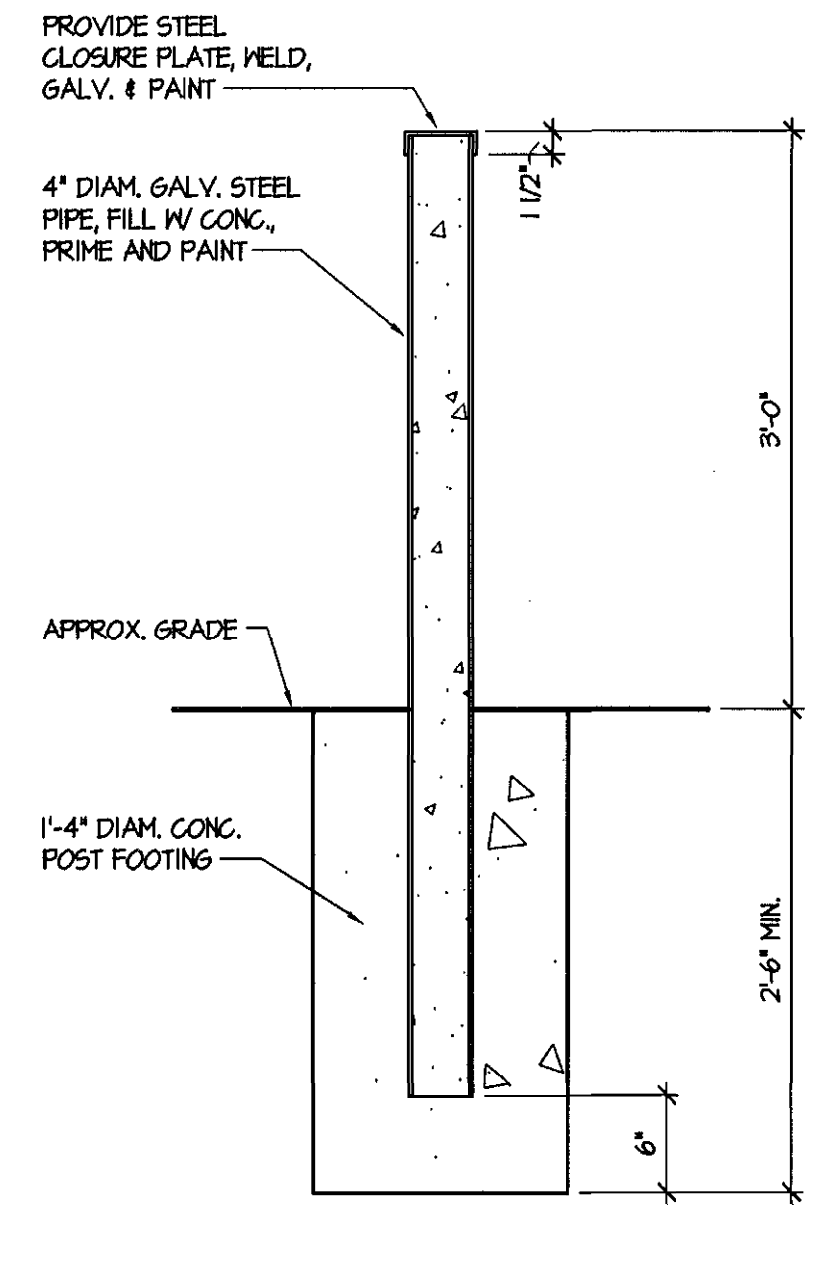
TOILET ROOM ELEVATIONS - MEN 107



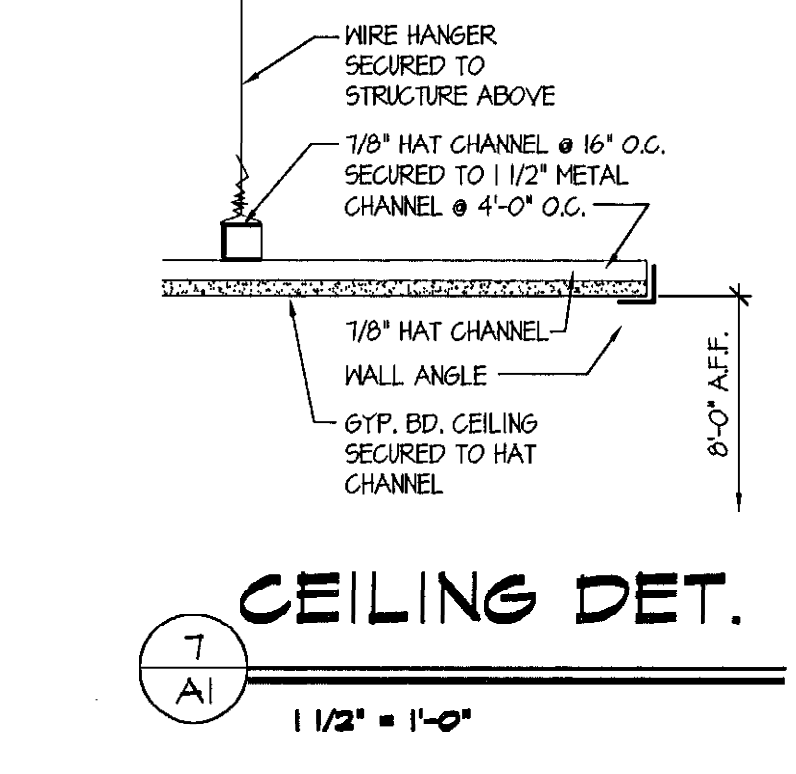
TOILET ROOM ELEVATIONS - WOMEN 108



PLAN DETAIL



TYPICAL STEEL BOLLARD DETAIL



CEILING DET.

REVISIONS

NO.	DATE	DESCRIPTION
1	01/07/08	PERMIT COMMENT RESPONSE

NEW MAINTENANCE FACILITY
 ROCKBURN PARK
 FOR HOWARD COUNTY PARKS & RECREATION

PROJECT NUMBER:	0503
PRELIMINARY ISSUE:	04-10-06
CONSTRUCTION ISSUE:	??/??/??
CADD FILE NAME:	0503-M-PLANS.dwg

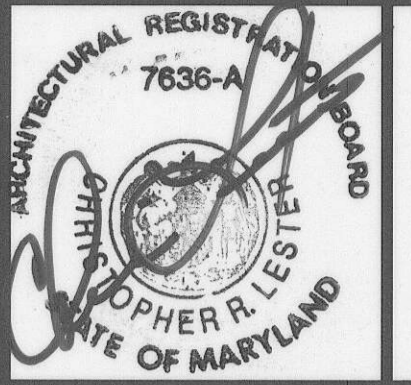
FLOOR PLAN & INTERIOR ELEVATIONS

SHEET NUMBER:

A-1



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 Email gva@georgevaeth.com



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REVISIONS

NO.	DATE	DESCRIPTION

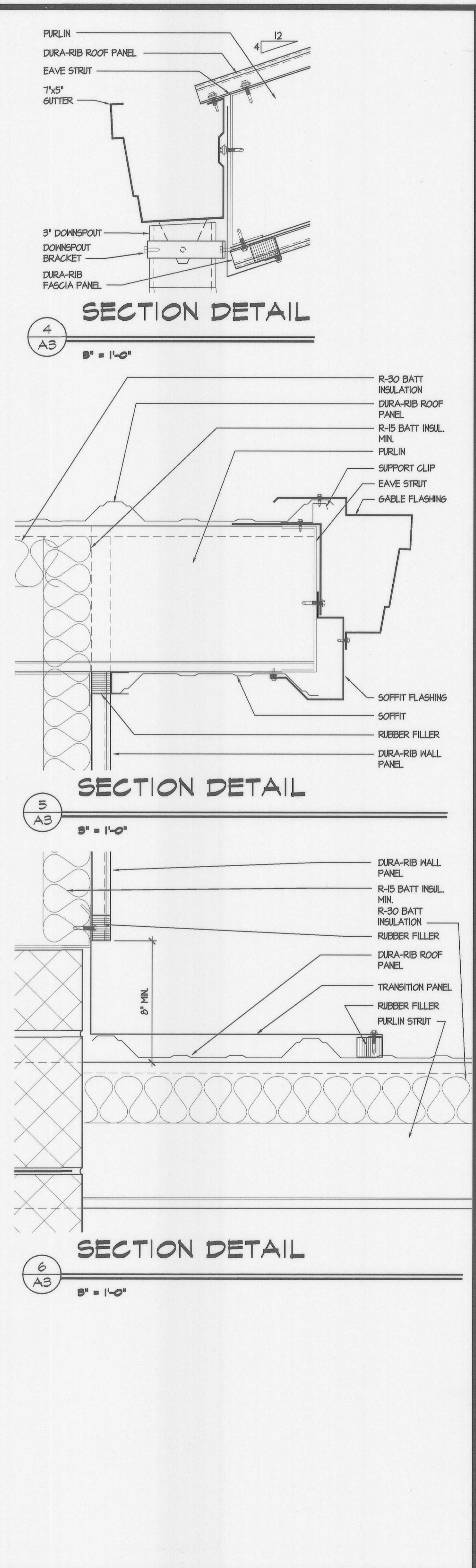
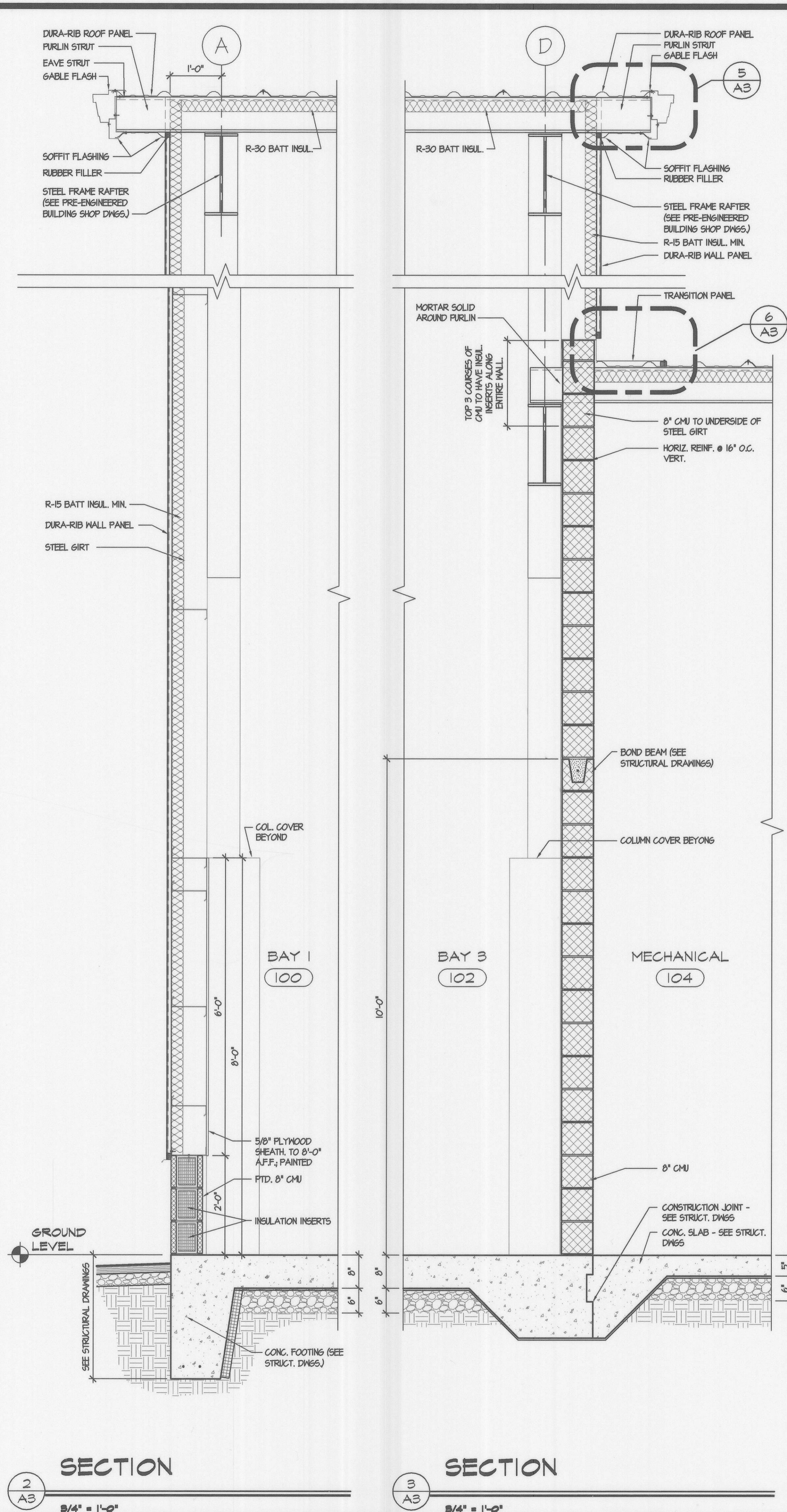
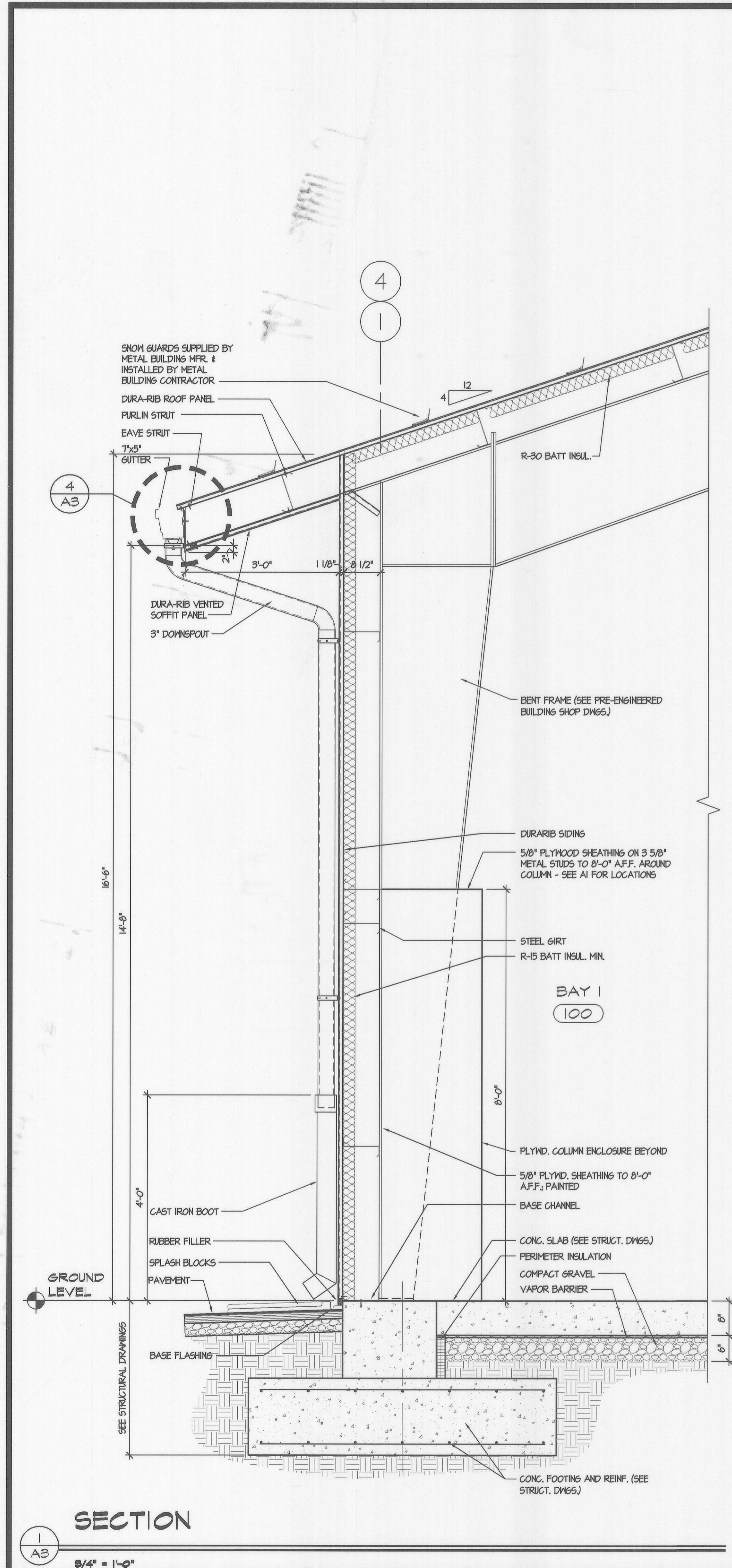
**NEW MAINTENANCE FACILITY
 ROCKBURN PARK
 FOR HOWARD COUNTY PARKS & RECREATION**

PROJECT NUMBER: 0503
 PRELIMINARY ISSUE: 04-10-06
 CONSTRUCTION ISSUE: ??/??/??
 CADD FILE NAME: 0503-M-PLANS.dwg

WALL SECTIONS & DETAILS

SHEET NUMBER:

A-3



SECTION DETAIL

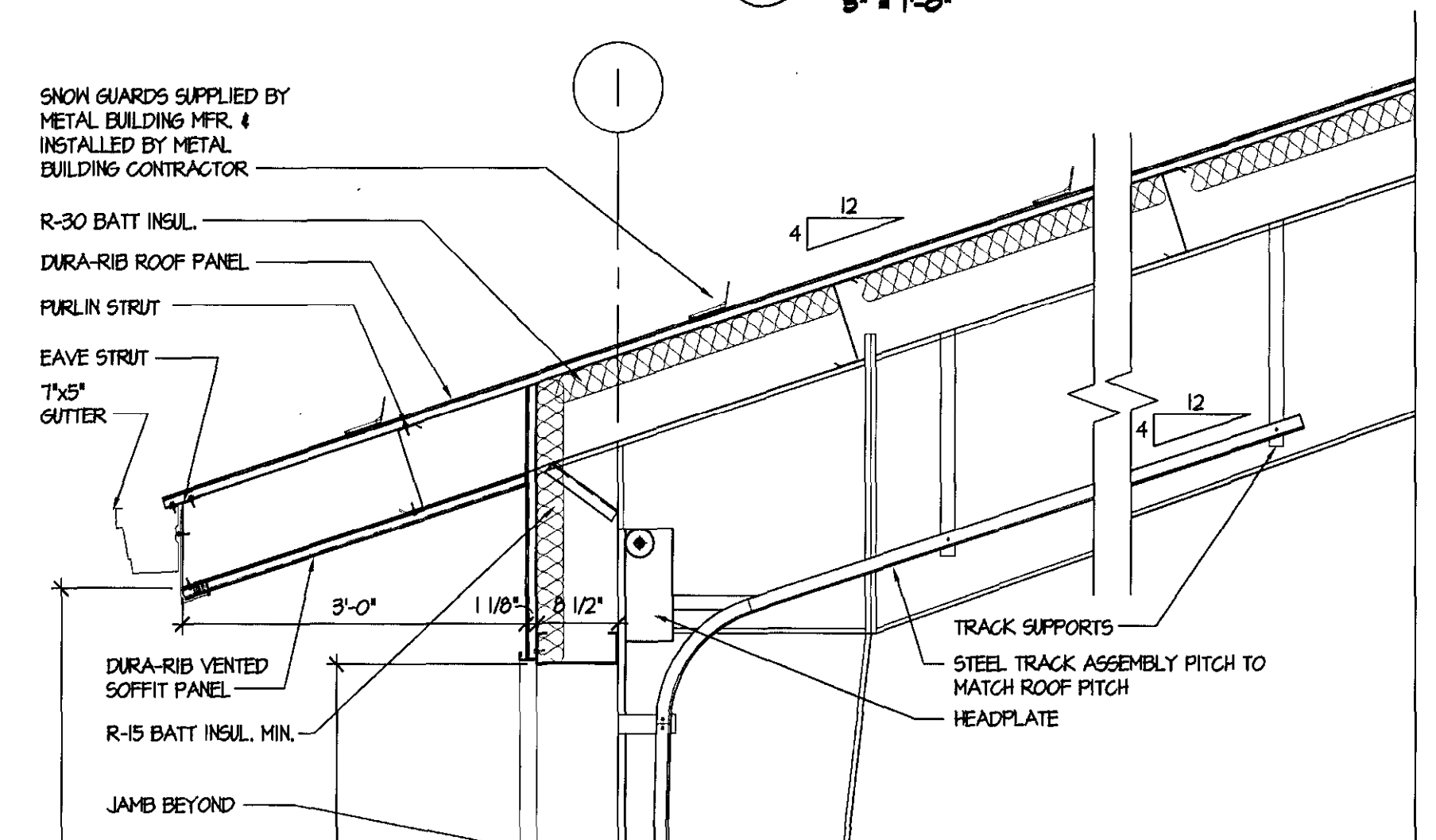
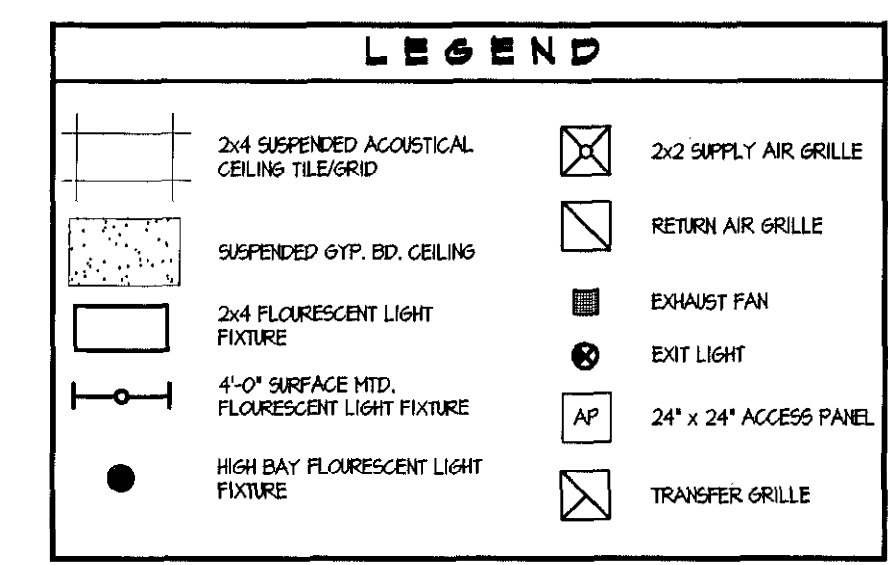
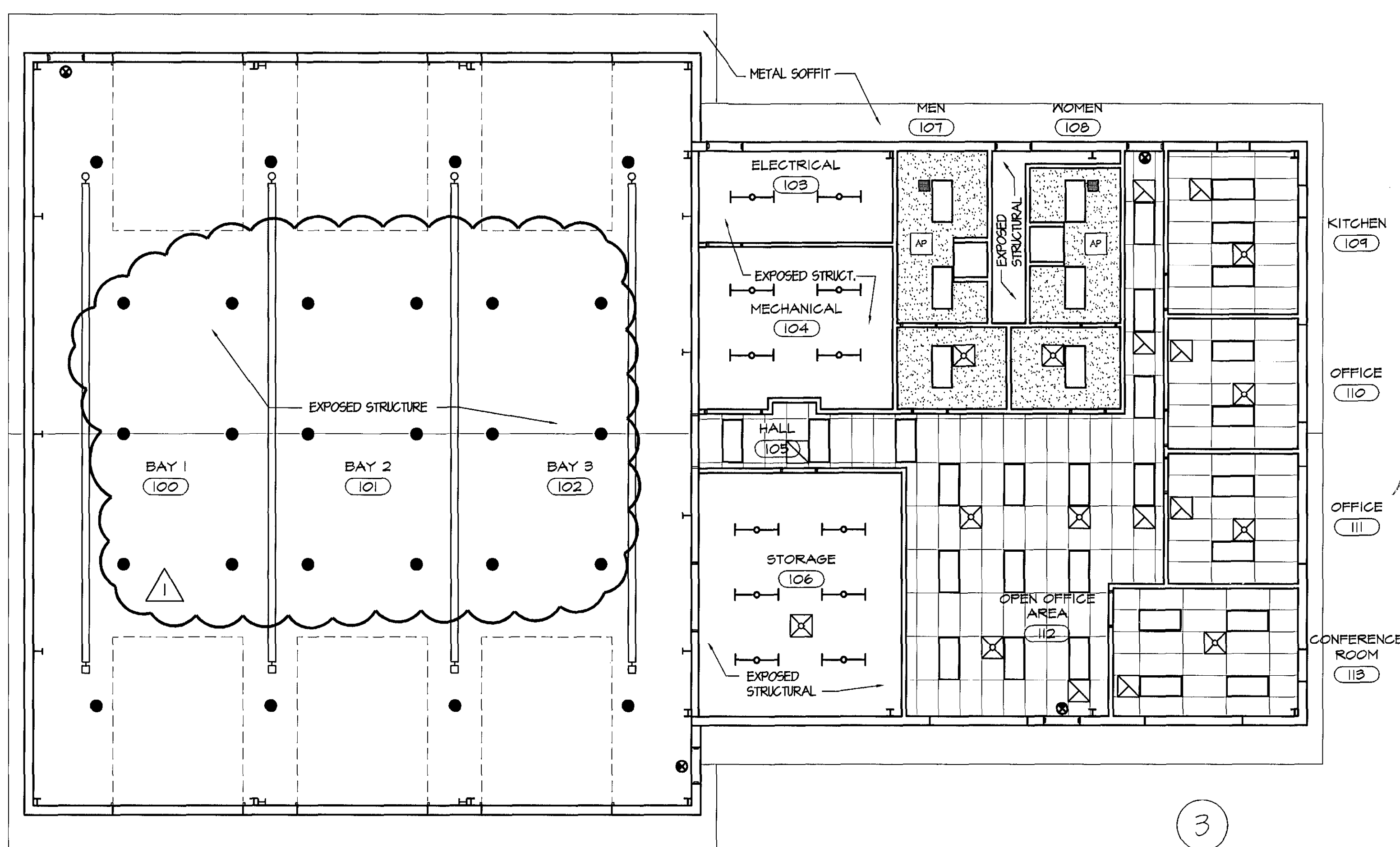
4
 A3
 3" = 1'-0"

SECTION DETAIL

5
 A3
 3" = 1'-0"

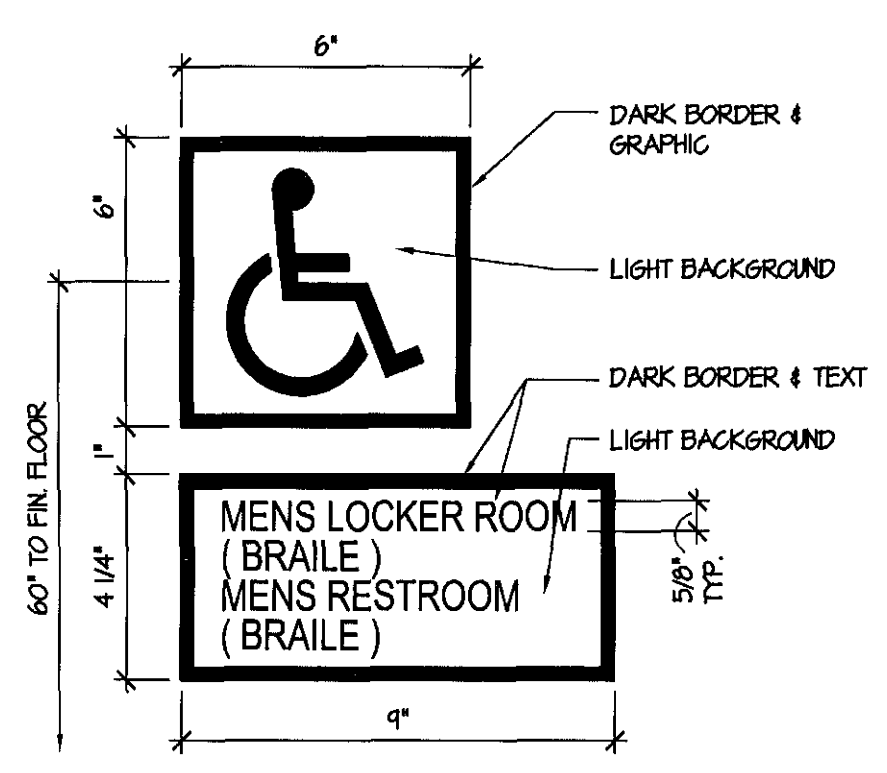
SECTION DETAIL

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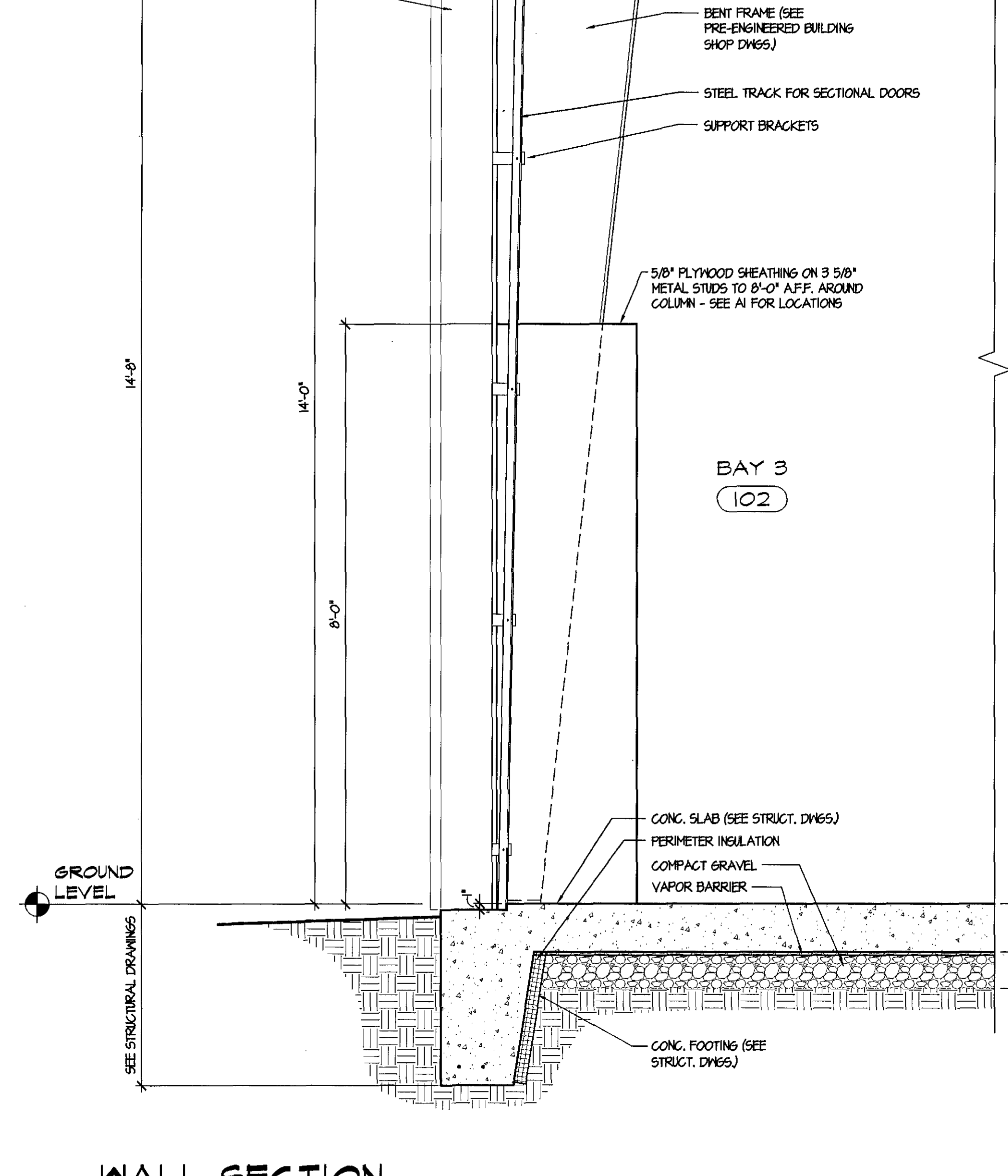
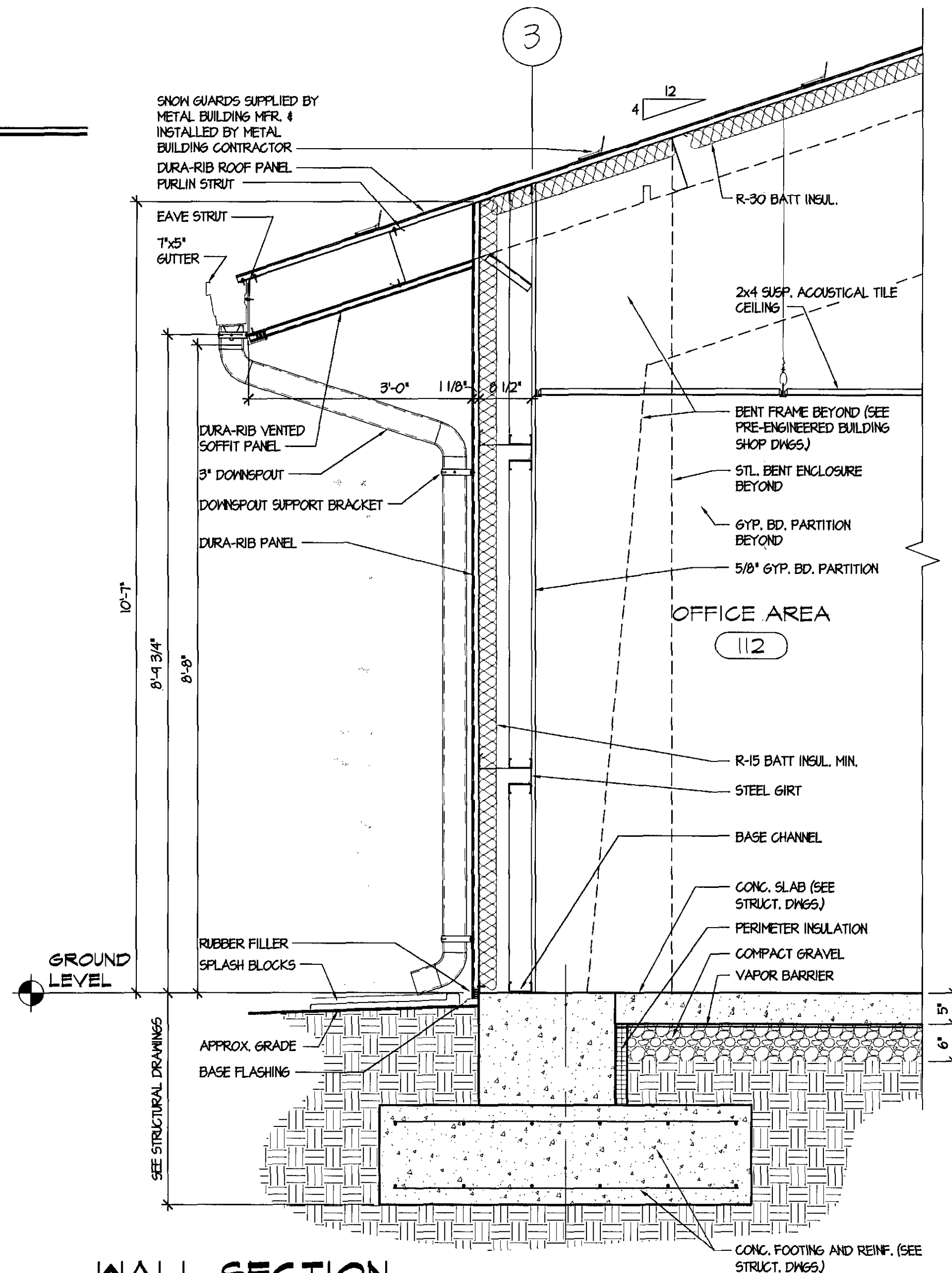


REFLECTED CEILING PLAN

1 A4 1/8" = 1'-0"



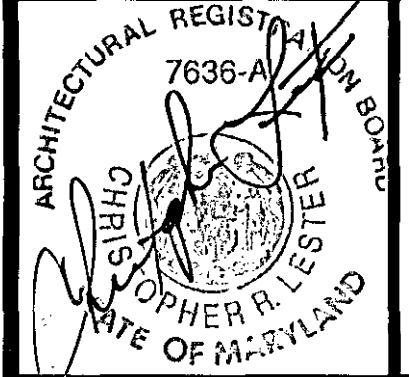
5 A4 8" = 1'-0"



2 A4 8/4" = 1'-0"

3 A4 8/4" = 1'-0"

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REVISIONS

NO.	DATE	DESCRIPTION
1	01/01/08	PERMIT COMMENT RESPONSE

**NEW MAINTENANCE FACILITY
ROCKBURN PARK
FOR HOWARD COUNTY PARKS & RECREATION**

PROJECT NUMBER: 0503
PRELIMINARY ISSUE: 04-10-06
CONSTRUCTION ISSUE: ??/??/??
CADD FILE NAME: 0503-M-PLANS.dwg

REFLECTED CEILING PLAN & WALL SECTIONS

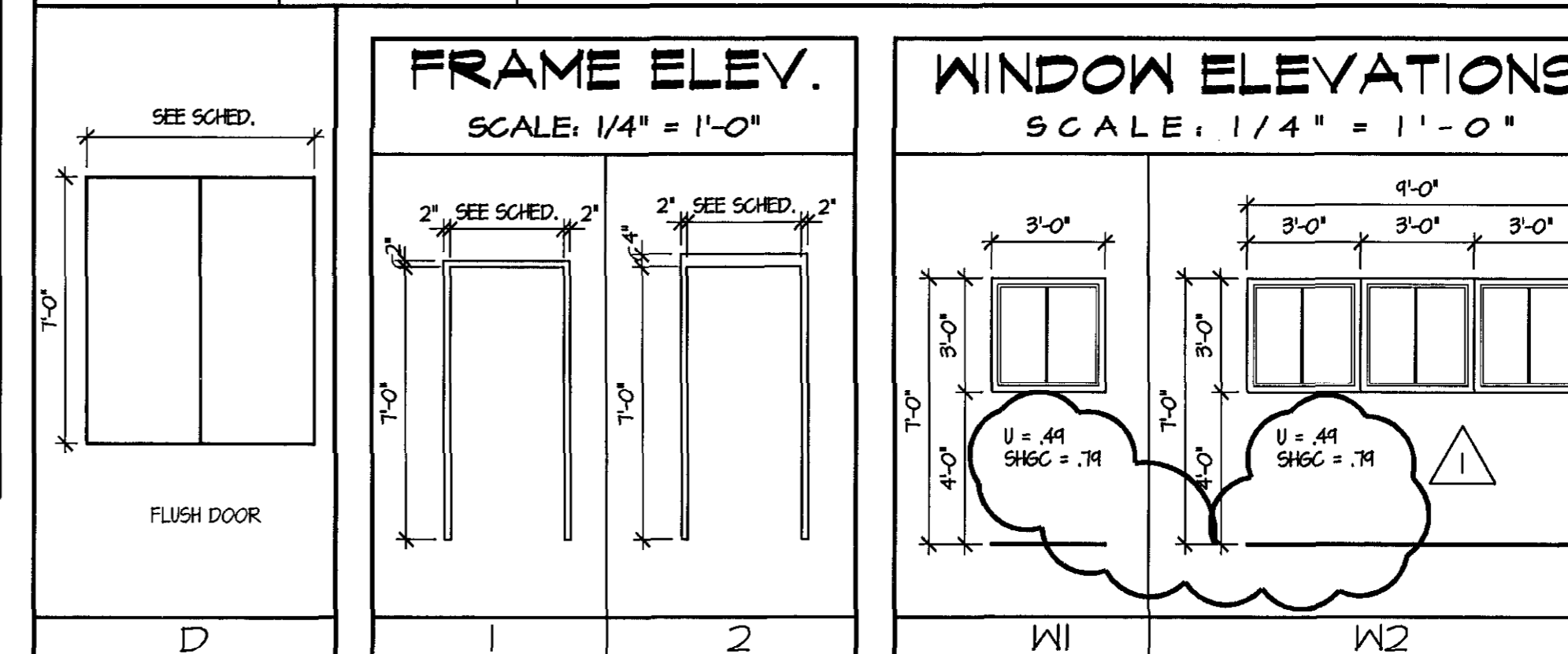
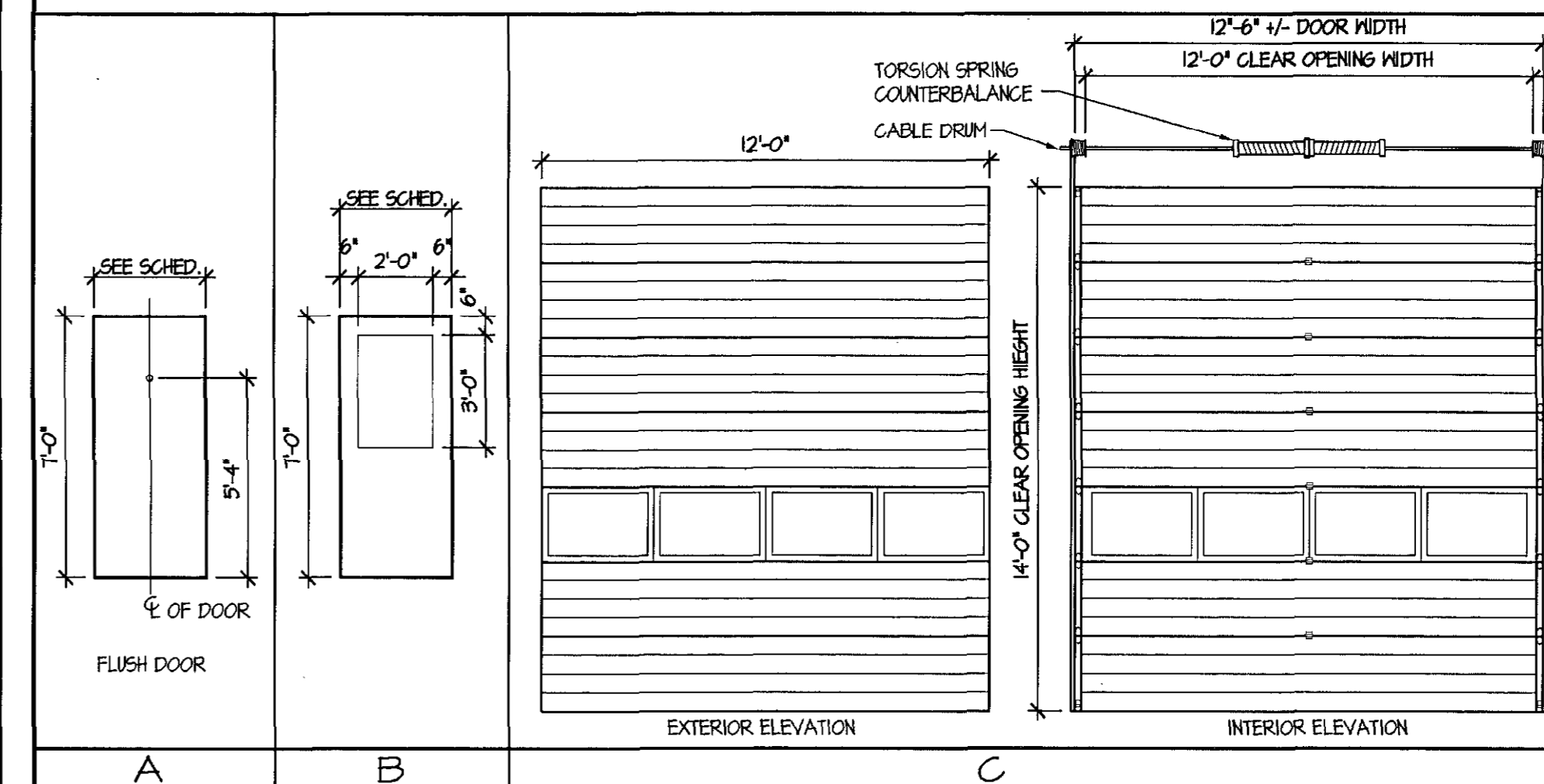
SHEET NUMBER:
A-4

DOOR SCHEDULE

OPENING NUMBER	FRAME				DOOR				FRAME				REMARKS									
	WIDTH	HEIGHT	DOOR THICKNESS	DOOR ELEVATION	DOOR MATERIAL	UNDERCUT (in inches)	LOUVER TYPE	LOUVER SIZE W x H (in inches)	GLASS TYPE	GLASS SIZE W x H x T (in inches)	FRAME THROAT (in inches)	FRAME ELEVATION		FRAME MATERIAL	TRANSOM and/or SIDE LITE TYPE	TRANSOM and/or SIDE LITE SIZE W x H x T (in inches)	HEAD DETAILS	JAMB DETAILS	SILL/THRESHOLD DETAILS	U. L. LABEL	HARDWARE SET	KEY NUMBER
100A	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-4	J-4	4/A4	-	7	-	U=.069	
100B	12'-0"	14'-0"	2"	C	STL	-	-	-	-	-	-	-	-	-	H-3	J-3	-	-	-	-	U=.057 SHGC=.79	
100C	12'-0"	14'-0"	2"	C	STL	-	-	-	-	-	-	-	-	-	H-3	J-3	-	-	-	-	U=.057 SHGC=.79	
101A	12'-0"	14'-0"	2"	C	STL	-	-	-	-	-	-	-	-	-	H-3	J-3	-	-	-	-	U=.057 SHGC=.79	
101B	12'-0"	14'-0"	2"	C	STL	-	-	-	-	-	-	-	-	-	H-3	J-3	-	-	-	-	U=.057 SHGC=.79	
102A	12'-0"	14'-0"	2"	C	STL	-	-	-	-	-	-	-	-	-	H-3	J-3	-	-	-	-	U=.057 SHGC=.79	
102B	12'-0"	14'-0"	2"	C	STL	-	-	-	-	-	-	-	-	-	H-3	J-3	-	-	-	-	U=.057 SHGC=.79	
102C	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-4	J-4	4/A4	-	7	-	U=.069	
103	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-4	J-4	4/A4	-	7	-	U=.069	
104A	5'-0"	7'-0"	1 3/4"	D	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	3	-	(2) - 2'-6" DOORS	
104B	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	1	-		
105	4'-8"	7'-0"	1 3/4"	D	HM	-	-	-	-	-	2	HM	-	-	H-2	J-2	-	1 1/2 HR.	0	-	(1) - 1'-8" DR. (INACTIVE) (1) 3'-0" DR. (ACTIVE)	
106A	6'-0"	7'-0"	1 3/4"	D	HM	-	-	-	-	-	2	HM	-	-	H-2	J-2	-	1 1/2 HR.	3	-		
106B	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	3/4 HR.	1	-		
107	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	4	-		
108	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	4	-		
109	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	5	-		
110	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	6	-		
111	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	6	-		
112A	3'-0"	7'-0"	1 3/4"	B	HM	-	-	-	CTG	24"x36"x1/4"	1	HM	-	-	H-4	J-4	4/A4	-	7	-	SAFETY GLASS U=.069 SHGC=.79	
112B	3'-0"	7'-0"	1 3/4"	B	HM	-	-	-	CTG	24"x36"x1/4"	1	HM	-	-	H-4	J-4	4/A4	-	7	-	SAFETY GLASS U=.069 SHGC=.79	
113	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	5	-		
114	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-4	J-4	4/A4	-	7	-	CHASE DOOR FOR TOILET ROOM	
115	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	2	-		
116	3'-0"	7'-0"	1 3/4"	A	HM	-	-	-	-	-	1	HM	-	-	H-1	J-1	-	-	2	-		

DOOR ELEVATIONS

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

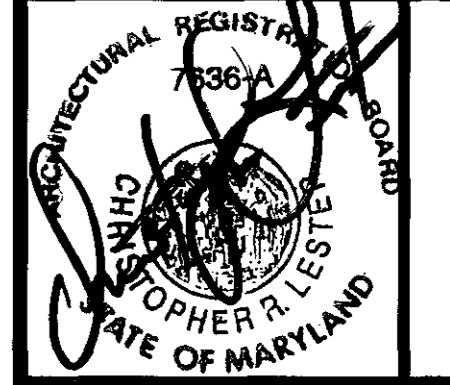


FINISH SCHEDULE

RM. NO.	ROOM NAME	SURFACE				FLOOR	BASE				WALLS			CEILING	CLG. HT.	PAINT	FINISH NOTES/REMARKS
		1	2	3	4		1	2	3	4	1	2	3				
		MATERIALS:															
		FLOOR FINISHING					TYPE MATERIAL OR COLOR SELECTION				EXPOSED STRUCTURE						
		CERAMIC TILE					EXPOSED STRUCTURE				PAINTED GYP. BD.						
		CONCRETE					PAINTED GYP. BD.				PAINTED GYP. BD.						
		TYPE MATERIAL OR COLOR SELECTION					TYPE MATERIAL OR COLOR SELECTION				TYPE MATERIAL OR COLOR SELECTION						
		NONE					EXPOSED STRUCTURE				EXPOSED STRUCTURE						
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BUILDING CODE DATA SHEET	
JOB TITLE: ROCKBURN PARK - MAINTENANCE BUILDING	JOB NO. 0503
BUILDING CODE	2006 IBC
USE GROUP (CHAPTER 3)	U (Utility & Misc.)
TYPE OF CONSTRUCTION (SECTION 602)	2B
TABULAR ALLOWANCES (TABLE 503)	
BUILDING AREA (A ₁)	8500 SF
BUILDING HEIGHT - STORIES	2 STORIES
BUILDING HEIGHT - FEET	59'
HEIGHT MODIFICATIONS - AUTOMATIC SPRINKLERS (504.2)	
STORY INCREASE	1
FEET INCREASE	20'
AREA MODIFICATIONS (506)	
A _a = A _t + (A _f / 100) + (A _s / 100)	
WHERE:	
A _a = ALLOWABLE AREA PER FLOOR (SQUARE FEET)	40375 SF
A _t = TABULAR AREA PER FLOOR IN ACCORDANCE WITH TABLE 503 (SQUARE FEET)	8500 SF
A _f = AREA INCREASE DUE TO FRONTAGE (PERCENT) AS CALCULATED IN ACCORDANCE WITH SECTION 506.2	75%
A _s = AREA INCREASE DUE TO SPRINKLER PROTECTION (PERCENT) AS CALCULATED IN ACCORDANCE WITH SECTION 506.3	300%
FRONTAGE INCREASE (506.2)	
I _f = 100 (F/P - 0.25) (N / 30)	
WHERE:	
I _f = AREA INCREASE DUE TO FRONTAGE (PERCENT)	75%
F = BUILDING PERIMETER WHICH FRONTS ON A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET OPEN MINIMUM WIDTH	376'
P = PERIMETER OF ENTIRE BUILDING	376'
N = MINIMUM WIDTH OF PUBLIC WAY OR OPEN SPACE	30'
N MUST BE AT LEAST 20 FEET AND THE QUANTITY N DIVIDED BY 30 SHALL NOT EXCEED 1.0 (506.2.1)	
AUTOMATIC SPRINKLER SYSTEM INCREASE (506.3) - Yes	200%
I _s = 200 PERCENT FOR MULTI-STORY BUILDINGS	1
I _s = 300 PERCENT FOR SINGLE STORY BUILDINGS	1
MAXIMUM BUILDING ALLOWANCES	
BUILDING AREA (A ₂)	40375 SF
BUILDING HEIGHT - STORIES	3 STORIES
BUILDING HEIGHT - FEET	75'
FIRE-RESISTANCE RATING REQUIREMENTS (TABLE 601 AND 602)	
STRUCTURAL FRAME	
INCLUDING COLUMNS, GIRDERS, TRUSSES	0
BEARING WALLS	
EXTERIOR	0
INTERIOR	0
NONBEARING WALLS AND PARTITIONS	
EXTERIOR	0
INTERIOR (SECTION 602)	0
FLOOR CONSTRUCTION	
INCLUDING SUPPORTING BEAMS AND JOISTS	0
ROOF CONSTRUCTION	
INCLUDING SUPPORTING BEAMS AND JOISTS	0
TENANT DEMISING WALLS (TABLE 302.3.3)	N/A
FIRE WALLS (TABLE 705.4)	3
SHAFT & VERTICAL EXIT ENCLOSURES (SECTION 707) - Exception 7.1.1	0
VERTICAL EXIT ENCLOSURES (SECTION 1005.3.2) - N/A	0
EXIT PASSAGEWAY (SECTION 1005.3.3)	1
HORIZONTAL EXIT (SECTION 1005.3.5)	2
SMOKE BARRIERS (SECTION 704)	1
CORRIDOR FIRE RESISTANCE RATING (TABLE 1004.3.2.1) (30 occ.serv.)	0
INTERIOR WALL AND CEILING FINISH REQUIREMENTS (TABLE 803.4)	
VERTICAL EXITS AND EXIT PASSAGEWAYS	CLASS
EXIT ACCESS CORRIDORS AND OTHER EXITWAYS	No Restrictions
ROOMS AND ENCLOSED SPACES	No Restrictions
INTERIOR FLOOR FINISH (804.5.1)	Comply w/ DOC FF-1 Fall Test
AUTOMATIC SPRINKLER SYSTEM	Yes
MEANS OF EGRESS	
OCCUPANT LOAD - FIRST FLOOR	41 OCCUP.
OFFICE AREA 1343 SF. @ 1/200 = 14 OCCUP.	
MECHANICAL STORAGE AREAS 4894 SF. @ 1/300 = 11 OCCUP.	
LOCKER ROOMS 484 SF. @ 1/50 = 10 OCCUP.	
STAIRWAYS (3IN PER OCCUPANT) - N/A	0'
EGRESS COMPONENTS - FIRST FLOOR (2IN PER OCCUPANT)	8.20"
DEAD END CORRIDOR LIMIT (1004.3.2.3)	20'
EXIT ACCESS TRAVEL DISTANCE (TABLE 1004.2.4)	400'
MINIMUM NUMBER OF EXITS - BLDGS. (TABLES 1005.2.1 & 1005.2.2)	2
BUILDING DATA	
1ST FLOOR	
GROSS SQUARE FOOTAGE (GSF)	1322 SF
PERIMETER	376'
TOTAL STAIRWAY WIDTH (IN INCHES) - N/A	0"
TOTAL DOOR WIDTH (IN INCHES)	144"

MATERIAL SCHEDULE

	BRICK		PLYWOOD or PARTICLE BOARD
	CONCRETE BLOCK		GLASS
	SOLID CONCRETE BLOCK OR FILLED BLOCK		EXPANSION JOINT MATERIAL
	CONCRETE		BATT INSULATION
	GRAVEL or CRUSHED STONE		RIGID INSULATION or ROOF PLANK
	STEEL		GYPSON BOARD or GYPSON DECK
	ACOUSTICAL TILE or VINYL COMPOSITION TILE		QUARRY TILE or CERAMIC TILE
	ROUGH WOOD CONTINUOUS		EARTH
	ROUGH WOOD BLOCKING		
	FINISHED WOOD		

SYMBOLS

	NORTH ARROW		OFFICE	ROOM TITLE
	KEYED NOTE		ROOM NUMBER	
	WALL SECTION		PARTITION TYPE	
	ELEVATION		EXISTING CONSTRUCTION	
	DETAIL		NEW CONSTRUCTION	
	ENLARGED DETAIL		DEMOLITION	
	WINDOW SYMBOL		COLUMN CENTERLINE	
	DOOR SYMBOL			

FOR ADDITIONAL SYMBOLS SEE INDIVIDUAL SHEETS

ABBREVIATIONS

A.B.	ANCHOR BOLT	CLR.	CLEAR	F.D.	FLOOR DRAIN	JAN.	JANITOR CLOSET	PLAS.	PLASTIC or PLASTER	STOR.	STORAGE
A.C.	AIR CONDITIONING	C.N.J.	CONCRETE MASONRY UNIT	F.H.	FIRE HYDRANT	JT.	JOINT	PLYM.	PLYWOOD	STRUC.	STRUCTURE or STRUCTURAL
ACOUS.	ACOUSTICAL	C.O.	CLEAN OUT	FIN.	FINISH	LAM.	LAMINATE	PNL.	PANEL	SUSP.	SUSPENDED or SUSPENSION
A.D.	AREA DRAIN	CONC.	CONCRETE	FL.	FIXTURE	L.L.H.	LONG LEG HORIZONTAL	PR.	PREFABRICATE	SYN.	SYNTHETIC
A.F.F.	ABOVE FINISHED FLOOR	CONC. JT.	CONCRETE JOINT	FLOR.	FLOOR	L.L.V.	LONG LEG VERTICAL	PREFAB.	PREFABRICATE	TB.	TACK BOARD
ALT.	ALTERNATE	CONSTR.	CONSTRUCTION	FT.	FEET or FOOT	L.F.	LOW POINT	POL.	POLYMER	TEL.	TELEPHONE
ALUM.	ALUMINUM	CORR.	CORRUGATED or CORRIDOR	FTS.	FOOTING	LT.	LIGHT	P.T.	PARTITION TYPE	TEMP.	TEMPERED, TEMPORARY, or TEMPERATURE
▲	ANGLE	CONT.	CONTINUOUS	F.E.	FIRE EXTINGUISHER	M.	MIRROR or METER	P.T.D.	PAPER TOWEL DISPENSER	T.P.H.	TOILET PAPER HOLDER
APPROX.	APPROXIMATELY	C.TSK.	COUNTERSUNK	GA.	GAUGE	MAS.	MASONRY	PTD.	PAINTED	T.P.S.	TONGUE & GROOVE
ARCH.	ARCHITECTURAL or ARCHITECT	C.N.S.	CLEAR WIRE GLASS	GALV.	GALVANIZED	MAX.	MAXIMUM	Q.T.	QUARRY TILE	TR.	TEMPERED, TEMPORARY, or TEMPERATURE
AT	AT	DBL.	DOUBLE	G.B.	GRAB BAR	M.C.	MEDICINE CABINET	R.	RISER or RADIUS	THRES.	THRESHOLD
ATT.	ATTACHED	DET.	DETAIL	G.C.	GENERAL CONTRACTOR	MECH.	MECHANICAL	R.A.	RETURN AIR	TOIL.	TOILET
A.T.	ACOUSTICAL TILE	D.F.	DRINKING FOUNTAIN	GL.	GLASS	MEMB.	MEMBRANE	R.D.	ROOF DRAIN	TR. or T.	TRAP
B.C.	BOTTOM OF CURB	DIA. or φ	DIAMETER	GR.	GRADE	REIN.	REINFORCEMENT or REINFORCING	REQ'D.	REQUIRED	T.T.P.	TYPICAL
BD.	BOARD	DN.	DOWN	G.W.B.	GYPSON WALL BOARD	R.F.M.	RECESSED FLOOR MATERIAL	RND.	ROUND	T.O.S.	TOP OF STEEL
BLDG.	BUILDING	DM.	DIMENSION	GYP.	GYPSON	R.L.	RAIN LEADER	R.O.	ROUGH OPENING	T.O.S.L.	TOP OF SLAB
BLK.	BLOCK	DN.	DOWN	H. or HT.	HEIGHT	R.L.	RAILING	S.A.	SUPPLY AIR	TKL.	TOP OF WALL
BLKG.	BLOCKING	D.P.	DAMP PROOFING	H.B.	HOSE BIB	RN.	ROOM	SAN.	SANITARY	TYP.	TYPICAL
B.M.	BEAM	D.S.	DAMP PROOFING	H.C.	HOLLOW CORE	RND.	ROUND	S.S.F.T.	STRUCTURAL GLAZED FACING TILE	U.V.	UNIT VENTILATOR
BOT.	BOTTOM	D.S. DRWG(S)	DRAWING(S)	H.D.	HEAD	R.O.	ROUGH OPENING	S.C.	SOLID CORE	UNO.	UNLESS NOTED OTHERWISE
BRG.	BEARING	EA.	EACH	HDY.	HARDWARE	S.A.	SUPPLY AIR	S.D.	SCAFFOLD	VERT.	VERTICAL
BRK.	BRICK	E.I.F.S.	EXTERIOR INSULATION & FINISH SYSTEM	HT.	HEIGHT	SAN.	SANITARY	SCH.	SCHEDULE	V.C.T.	VINYL COMPOSITION TILE
B.S.	BOTH SIDES	Eq.	FOR EXAMPLE	HM.	HOLLOW METAL	S&F.T.	STRUCTURAL GLAZED FACING TILE	S.E.	SCHEDULE	V.I.F.	VERIFY IN FIELD
BSMT.	BASEMENT	E.J.	EXPANSION JOINT	HR.	HORIZONTAL	S.C.	SOLID CORE	S.H.	SHEET	W.	WIDTH
BU.	BUILT UP	EL.	ELEVATION	H.R.	HORIZONTAL	S.D.	SCAFFOLD	SIM.	SIMILAR	W/	WITH
CB.	CABINET	ELEC.	ELECTRIC(AL)	HTR.	HEATER	SCH.	SCHEDULE	S.M.	SHEET METAL	W/O	WITHOUT
CAB.	CABINET	ELEV.	ELEVATION or ELEVATOR	H.P.	HOLE POINT	SEAL.	SEALANT	S.M.	SHEET METAL	W.	WITH
CARP.	CARPET	E.P.	ELECTRICAL PANEL	ID.	INSIDE DIAMETER	SECT.	SECTION	S.M.	SHEET METAL	W/O	WITHOUT
CB.	CHALKBOARD	EQ.	EQUIPMENT	IN.	INTERIOR or INTERMEDIATE	SHT.	SHEET	S.M.	SHEET METAL	W.	WITH
CEH.	CEMENT	EQIP.	EQUIPMENT	INCAND.	INCANDESCENT	SHT.	SHEET	S.M.	SHEET METAL	W/O	WITHOUT
C.I.	CAST IRON	E.N.C.	ELECTRIC WATER COOLER	INSUL.	INSULATION	SHT.	SHEET	S.M.	SHEET METAL	W/O	WITHOUT
C.J.	CONTROL JOINT	EXH.	EXHAUST	INTR.	INTERIOR	SHT.	SHEET	S.M.	SHEET METAL	W/O	WITHOUT
C.	CENTERLINE	EXIST.	EXISTING	INTR.	INTERIOR	SHT.	SHEET	S.M.	SHEET METAL	W/O	WITHOUT
C.L.S.	CEILING	EXP.	EXPANSION or EXPOSED	INV.	INVERT	SHT.	SHEET	S.M.	SHEET METAL	W/O	WITHOUT
CLO.	CLOSET	EXTR.	EXTERIOR			SHT.	SHEET	S.M.	SHEET METAL	W/O	WITHOUT

REVISIONS

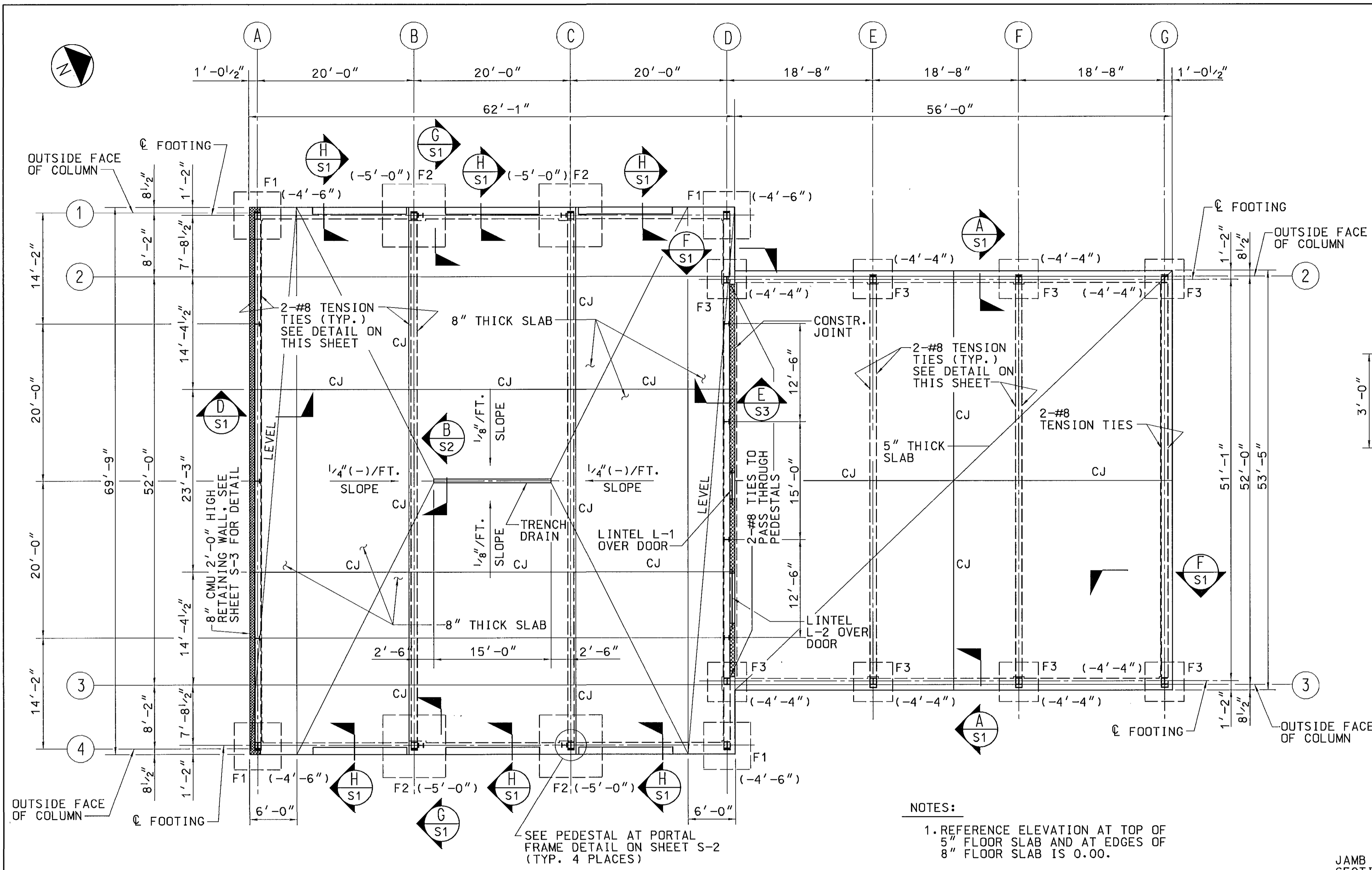
NO.	DATE	DESCRIPTION

NEW MAINTENANCE FACILITY ROCKBURN PARK FOR HOWARD COUNTY PARKS & RECREATION

PROJECT NUMBER:	0503
PRELIMINARY ISSUE:	04-10-06
CONSTRUCTION ISSUE:	??/??/??
CADD FILE NAME:	0503-M-DATA.dwg

DATA SHEET

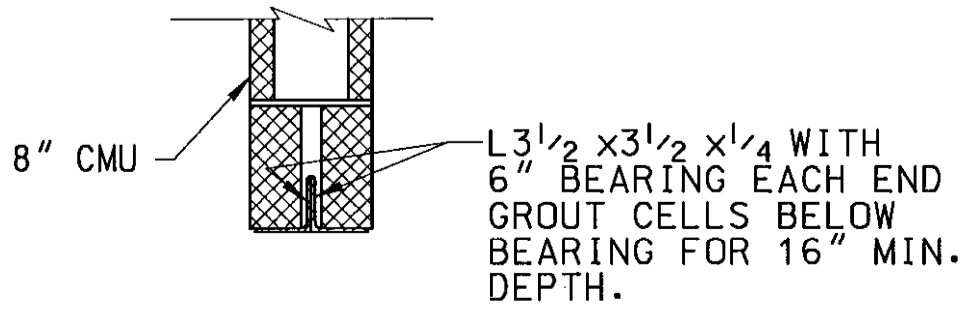
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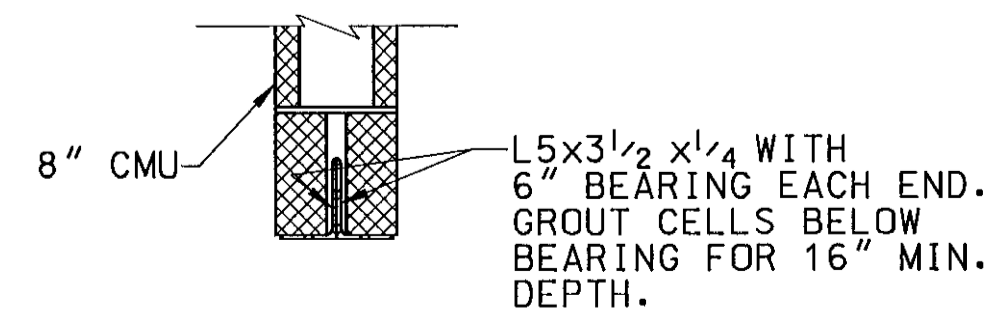
FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

- NOTES:**
1. REFERENCE ELEVATION AT TOP OF 5" FLOOR SLAB AND AT EDGES OF 8" FLOOR SLAB IS 0.00.
 2. (-4'-6") - INDICATES BOTTOM OF FOOTING ELEVATION BELOW FINISHED FLOOR ELEVATION.
 3. CJ INDICATES CONTROL JOINT OR CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION.

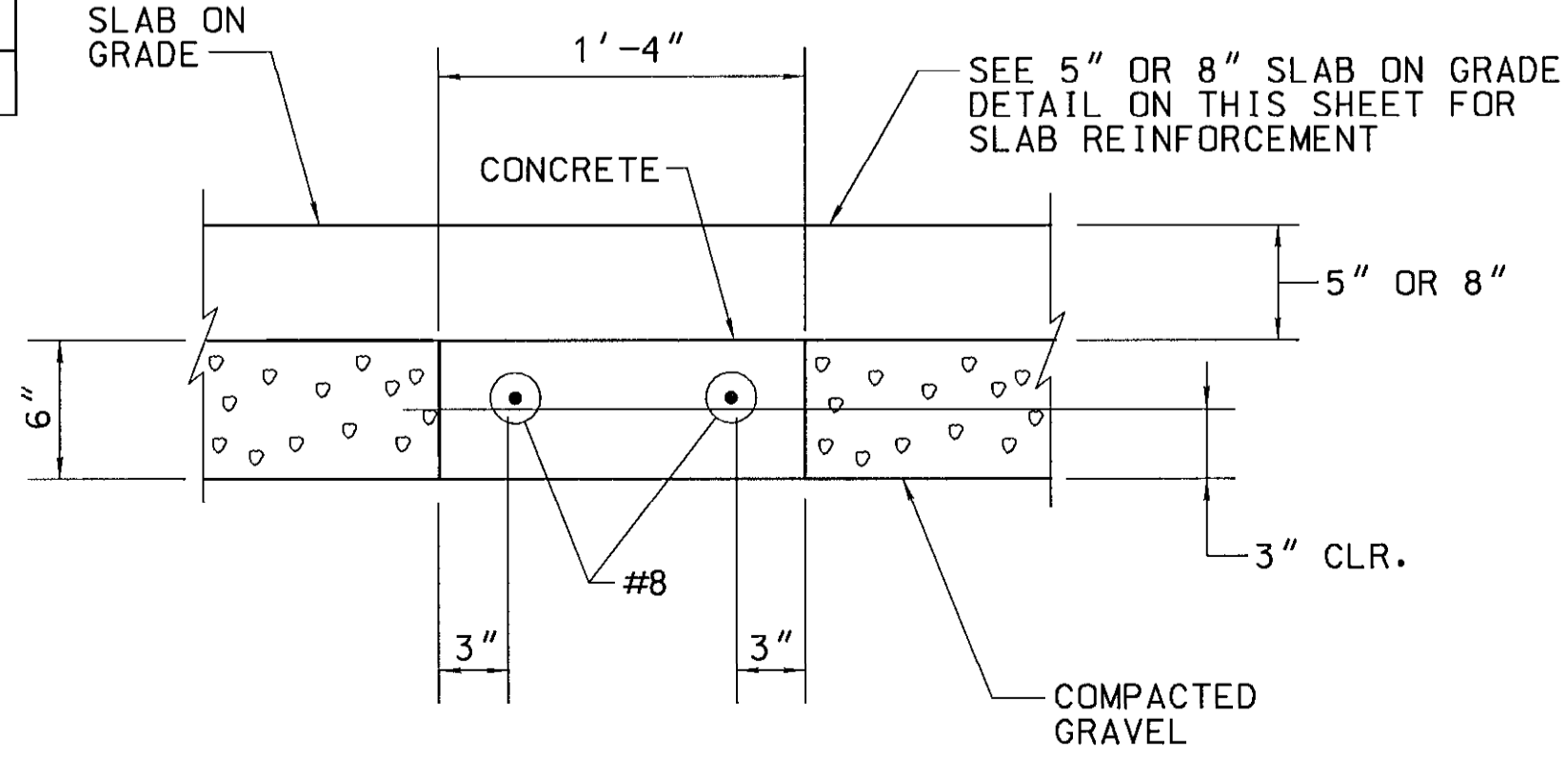
FOOTING TABLE					
FOOTING DESIGNATOR	LENGTH	WIDTH	THICKNESS	TOP REINFORCING BARS	BOTTOM REINFORCING BARS
F1	6'-0"	6'-0"	18"	7-#5 IN EACH DIRECTION	7-#6 IN EACH DIRECTION
F2	8'-0"	8'-0"	24"	9-#5 IN EACH DIRECTION	9-#6 IN EACH DIRECTION
F3	5'-0"	5'-0"	16"	6-#5 IN EACH DIRECTION	6-#6 IN EACH DIRECTION



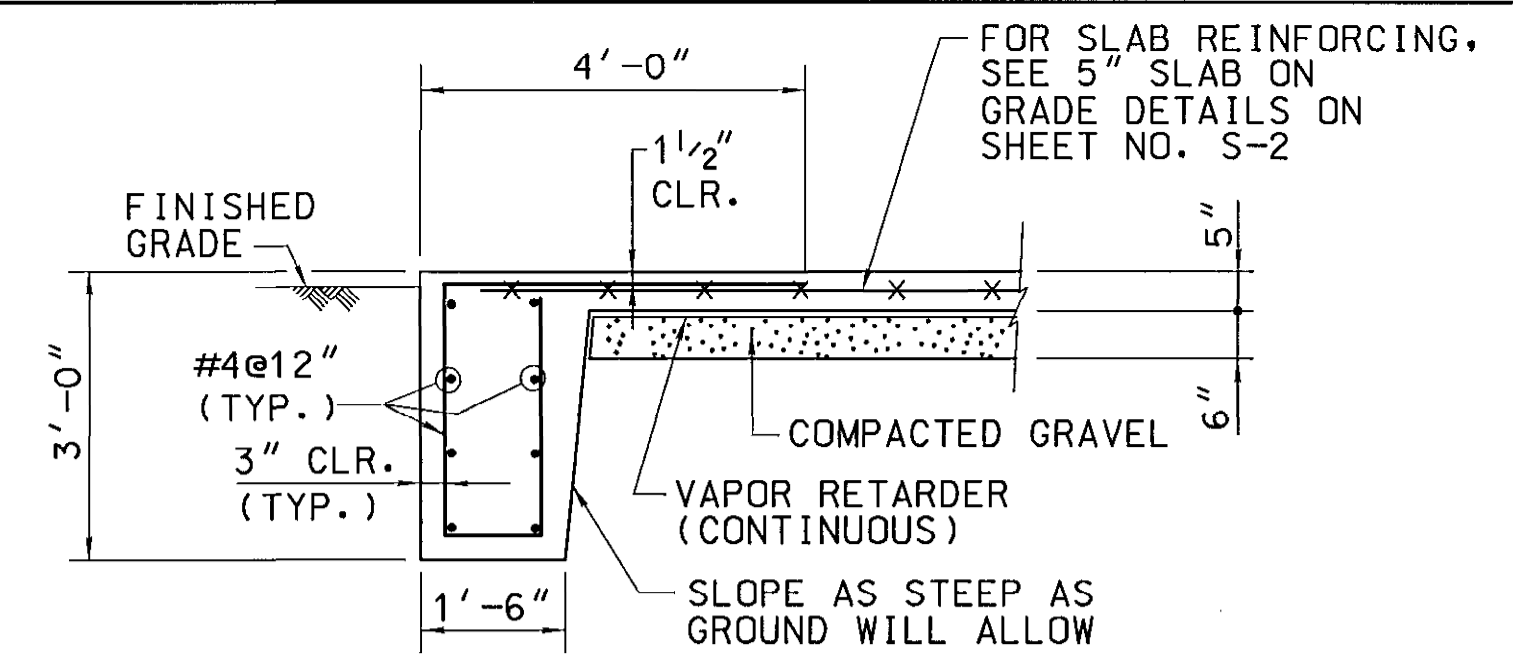
LINTEL L-1
SCALE: 1" = 1'-0"



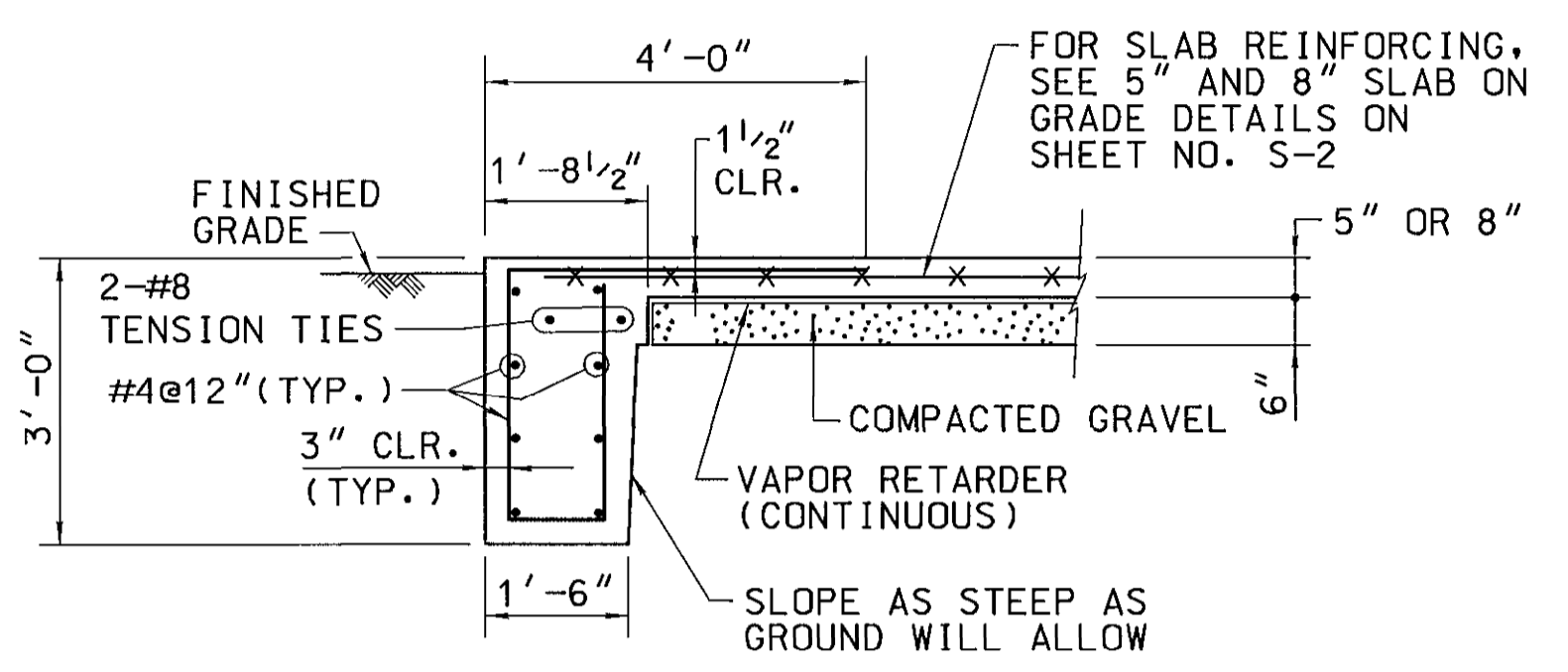
LINTEL L-2
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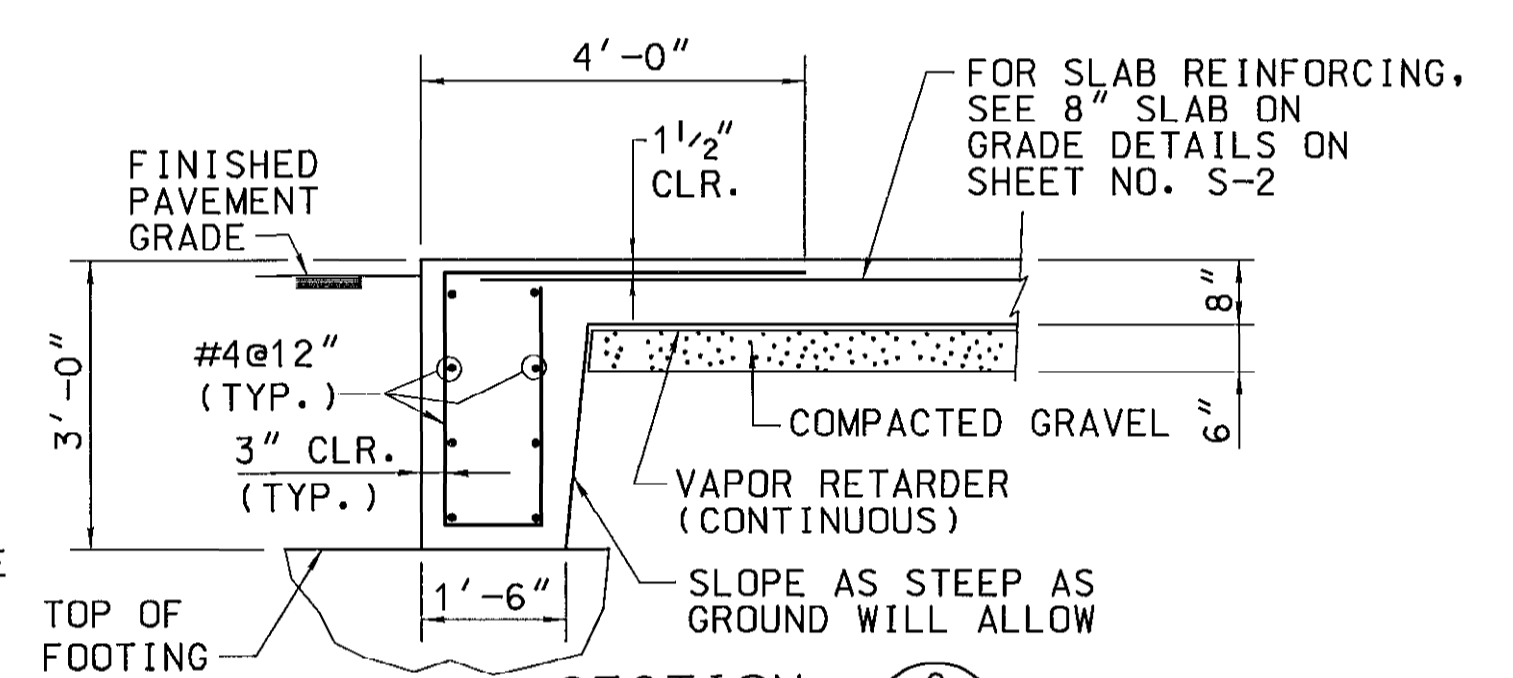
TYPICAL TENSION TIE DETAIL
SCALE: 1 1/2" = 1'-0"



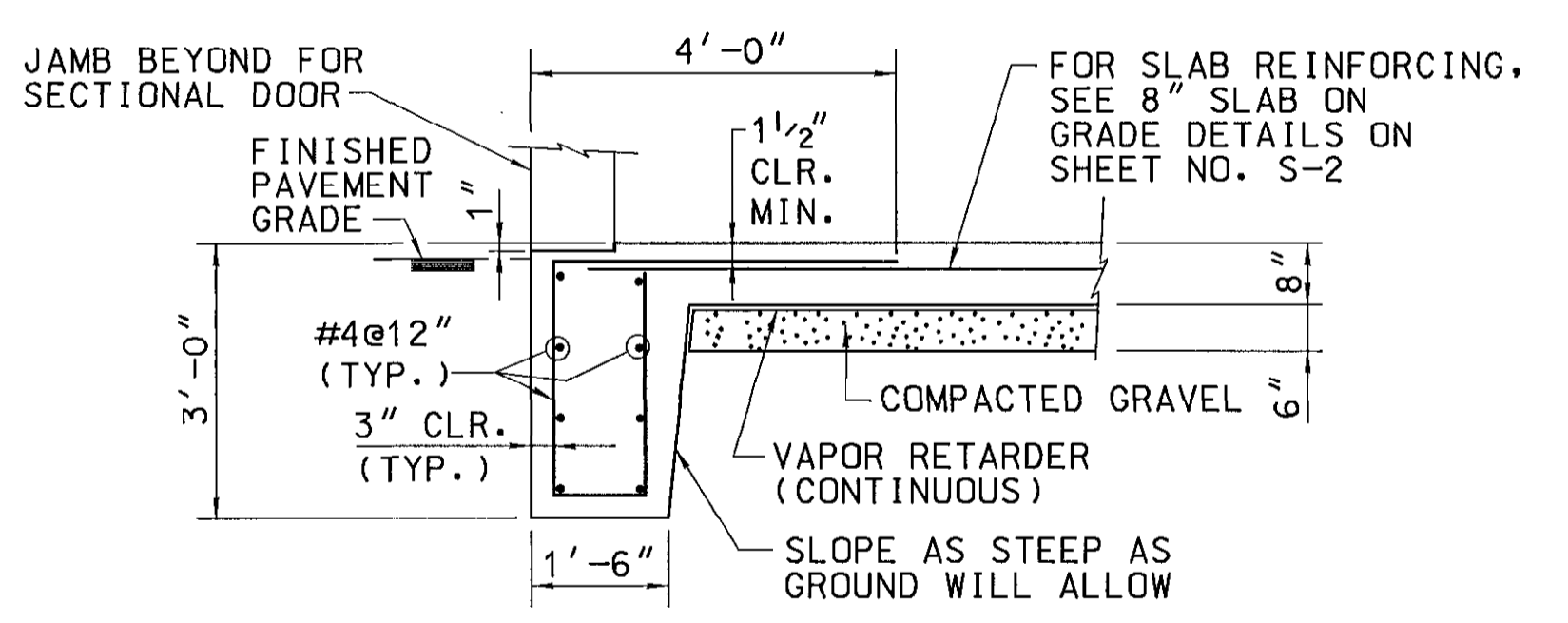
SECTION A
SCALE: 1/2" = 1'-0" S1



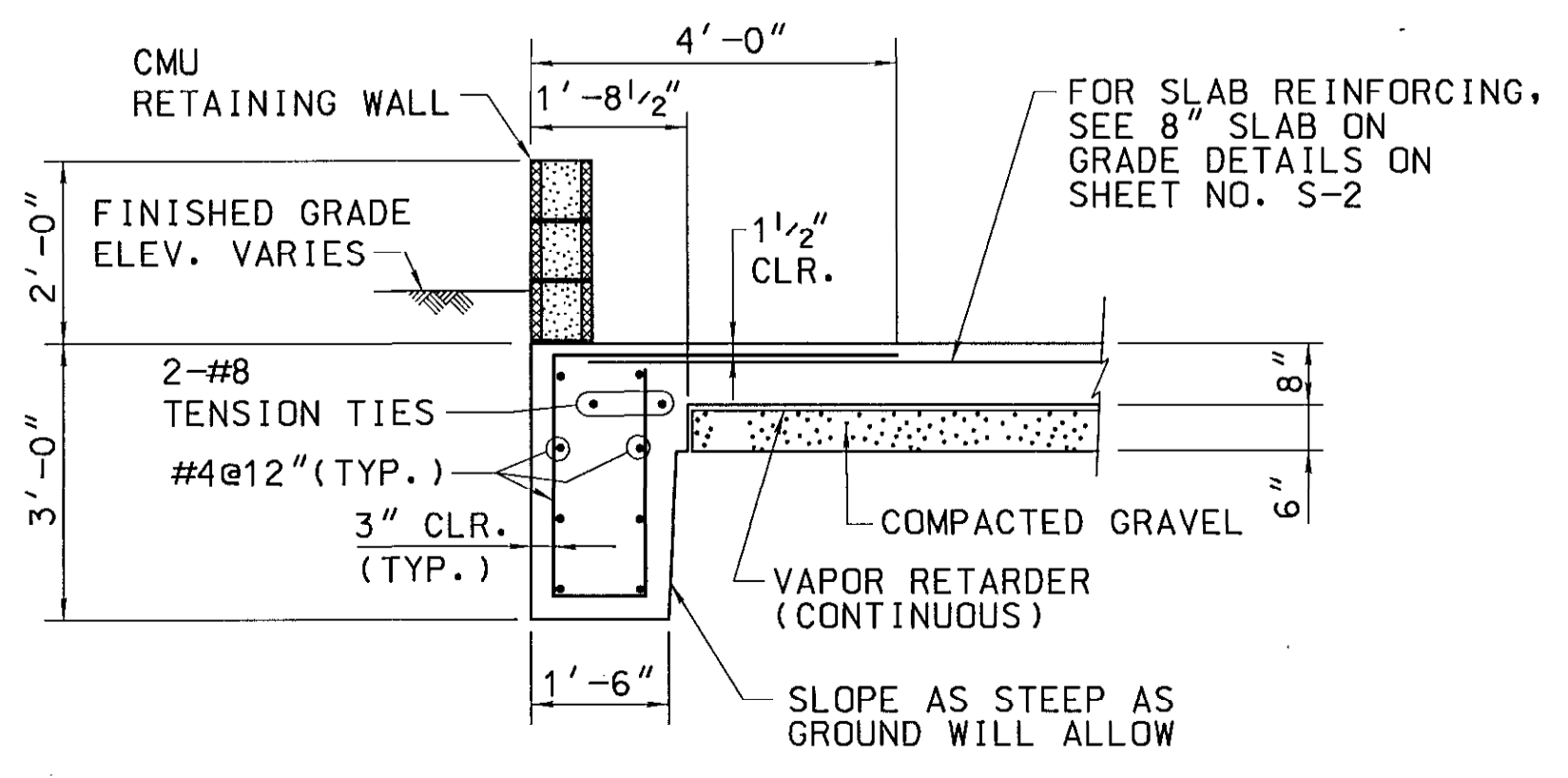
SECTION F
SCALE: 1/2" = 1'-0" S1



SECTION G
SCALE: 1/2" = 1'-0" S1



SECTION H
SCALE: 1/2" = 1'-0" S1

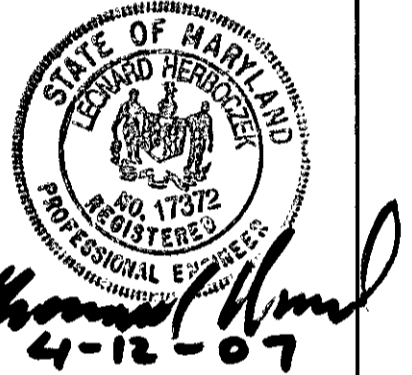


SECTION D
SCALE: 1/2" = 1'-0" S1

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REVISIONS	
NO.	DESCRIPTION

**NEW MAINTENANCE FACILITY
ROCKBURN PARK
FOR HOWARD COUNTY
PARKS & RECREATION**

PROJECT NUMBER:	0503
PRELIMINARY ISSUE:	4-10-06
CONSTRUCTION ISSUE:	02/18/06
CADD FILE NAME:	0105342251

**FOUNDATION PLAN,
SECTIONS AND DETAILS**

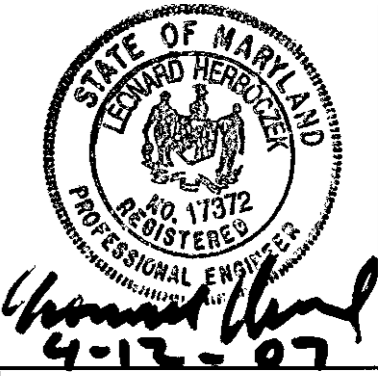
SHEET NUMBER:
S-1



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REVISIONS

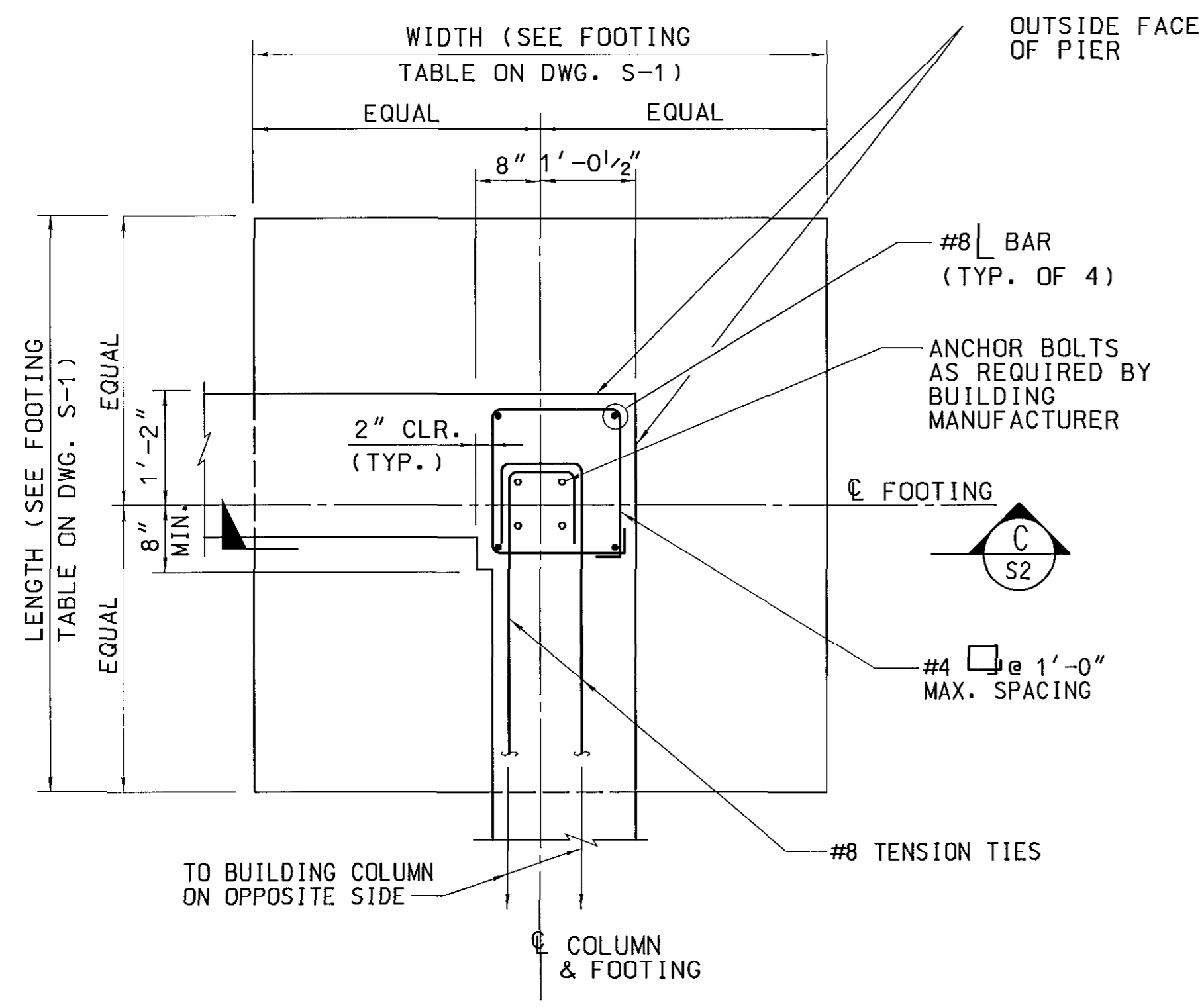
NO.	DATE	DESCRIPTION

**NEW MAINTENANCE FACILITY
 ROCKBURN PARK
 FOR
 HOWARD COUNTY
 PARKS & RECREATION**

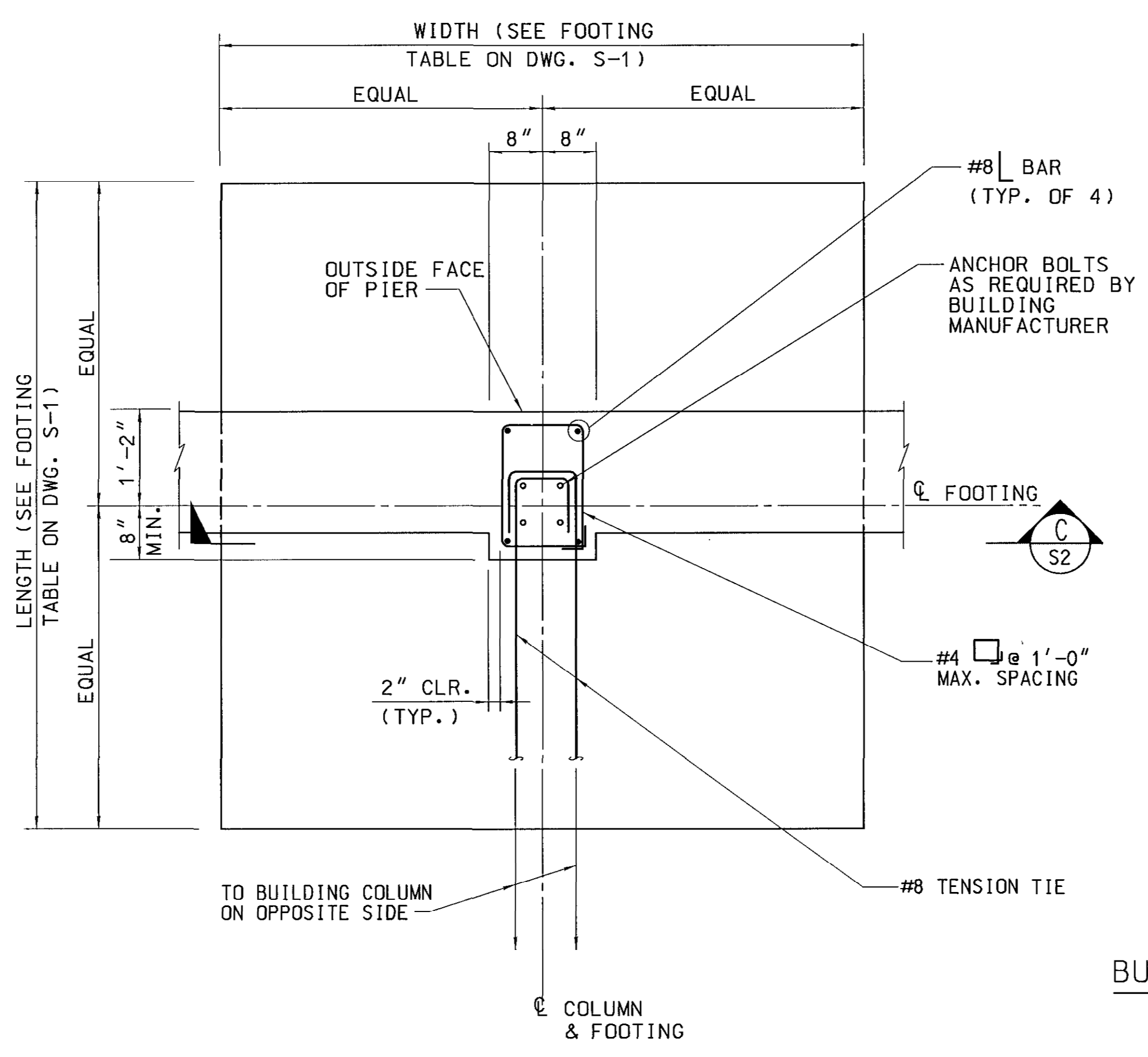
PROJECT NUMBER: 0503
 PRELIMINARY ISSUE: 4-10-06
 CONSTRUCTION ISSUE: 08/18/06
 CADD FILE NAME: 01053422152

SECTIONS AND DETAILS

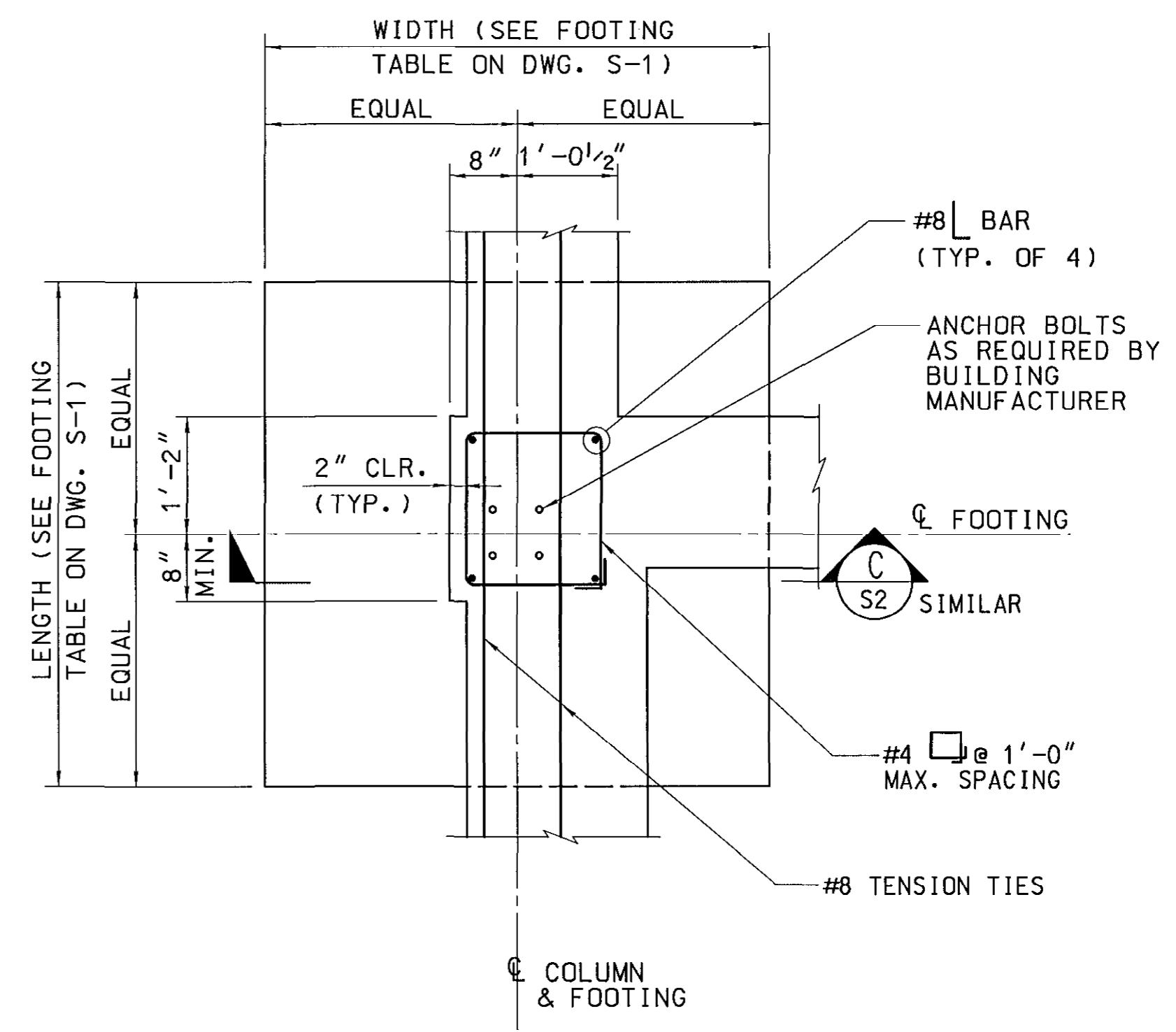
SHEET NUMBER: **S-2**



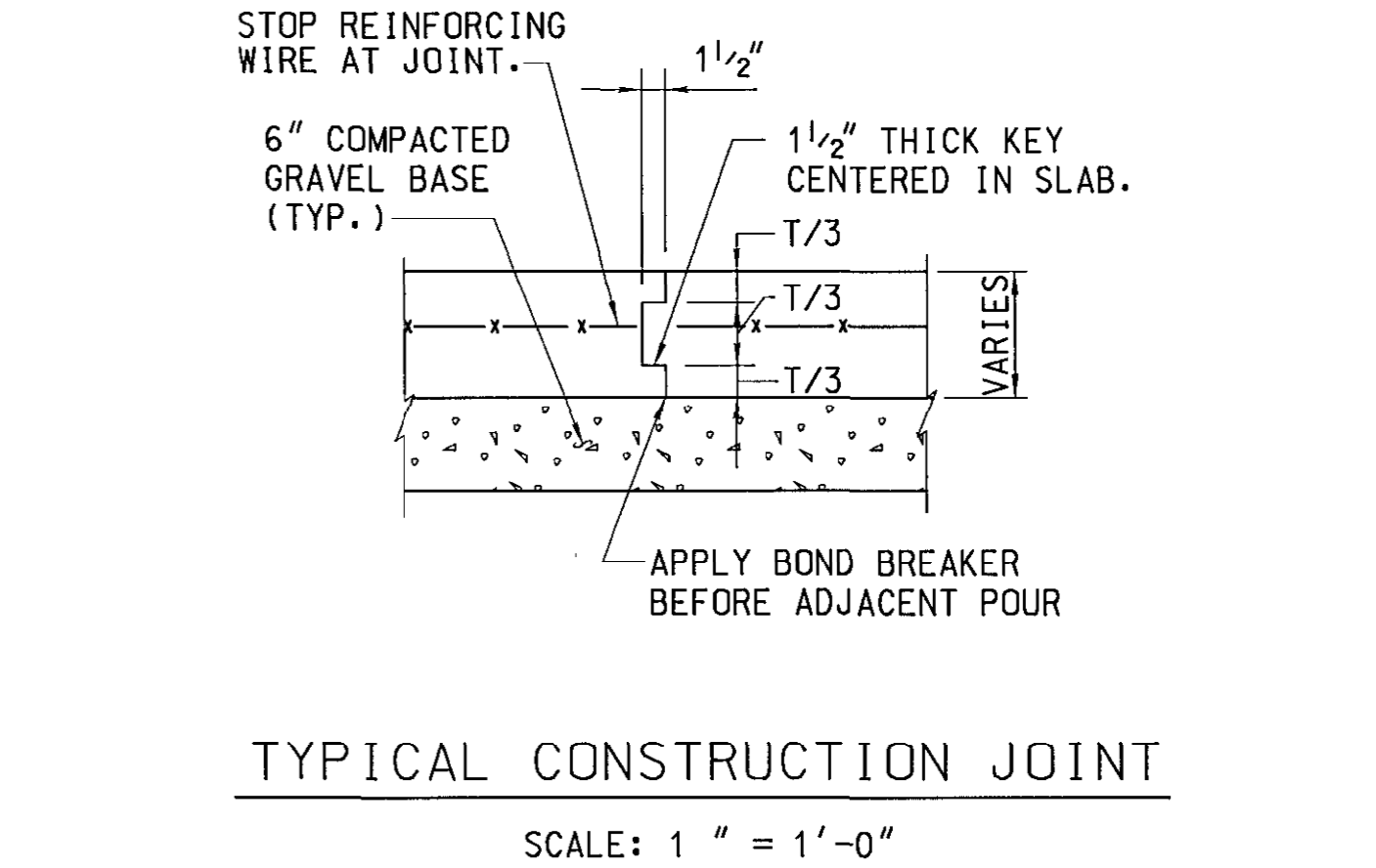
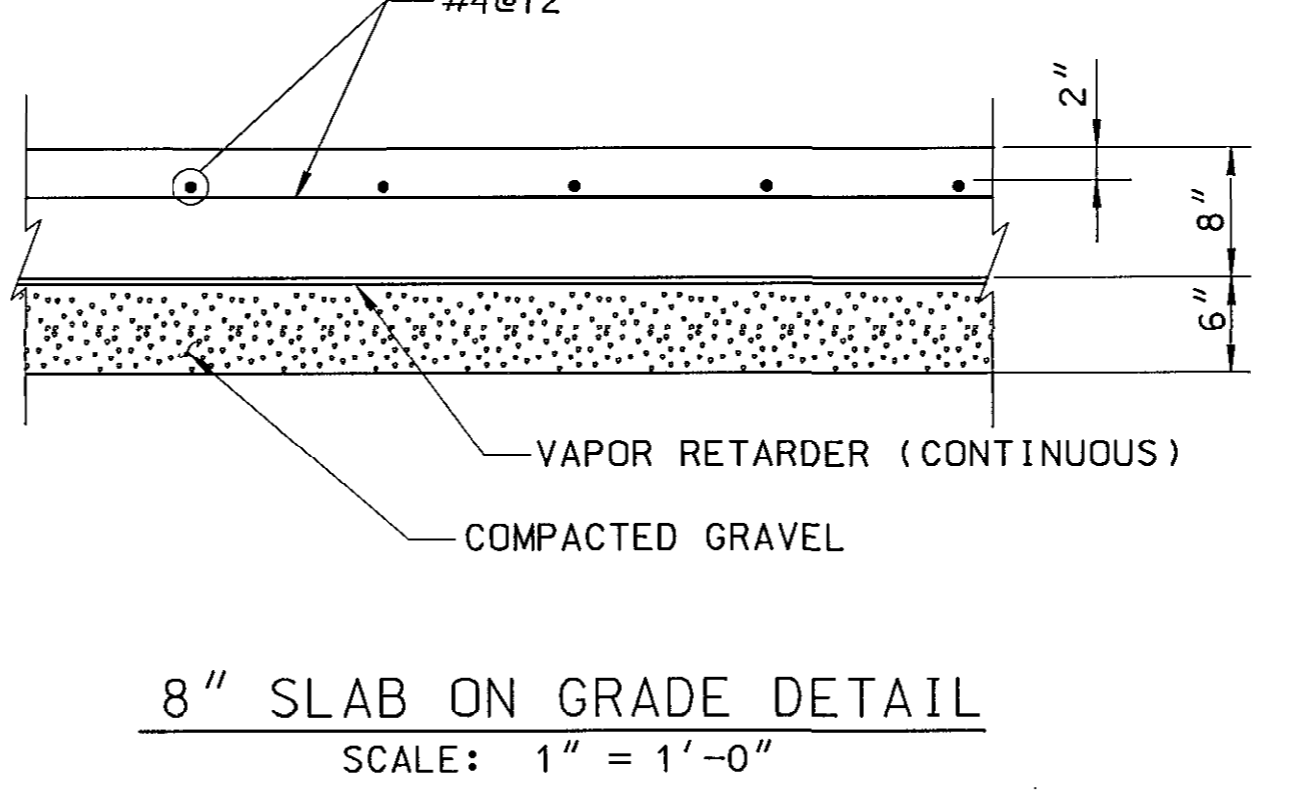
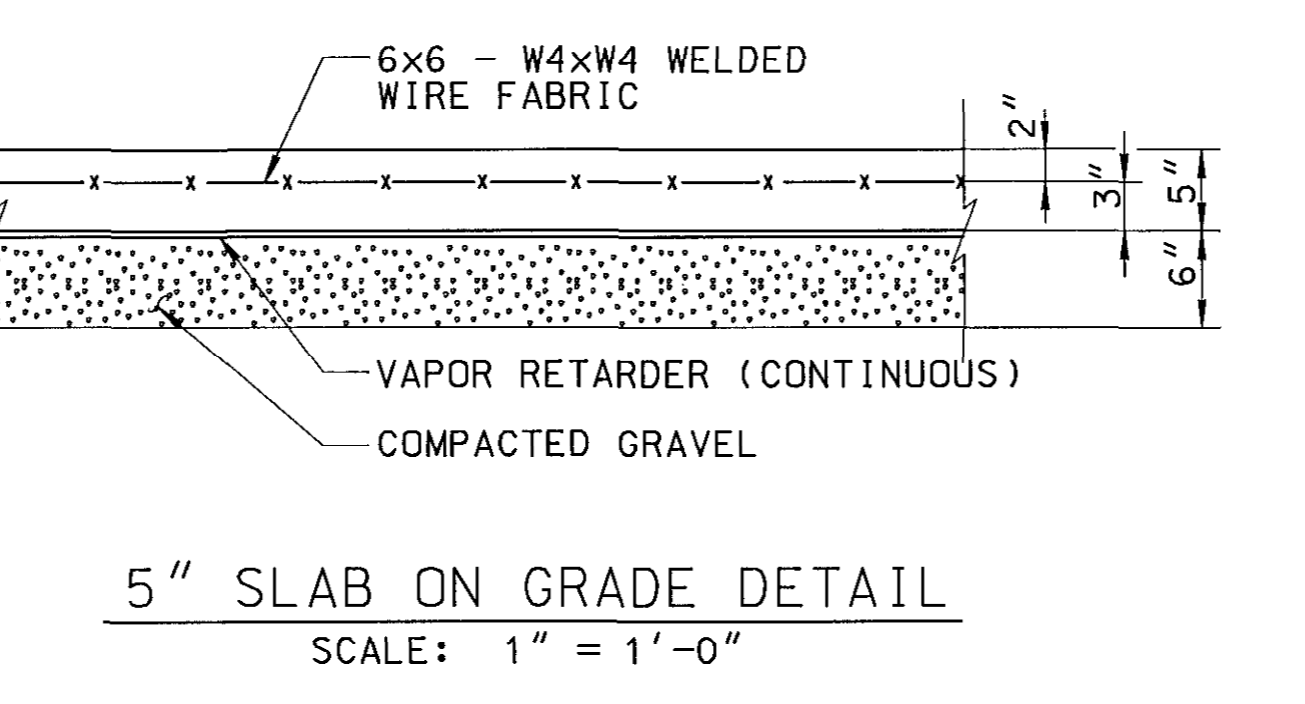
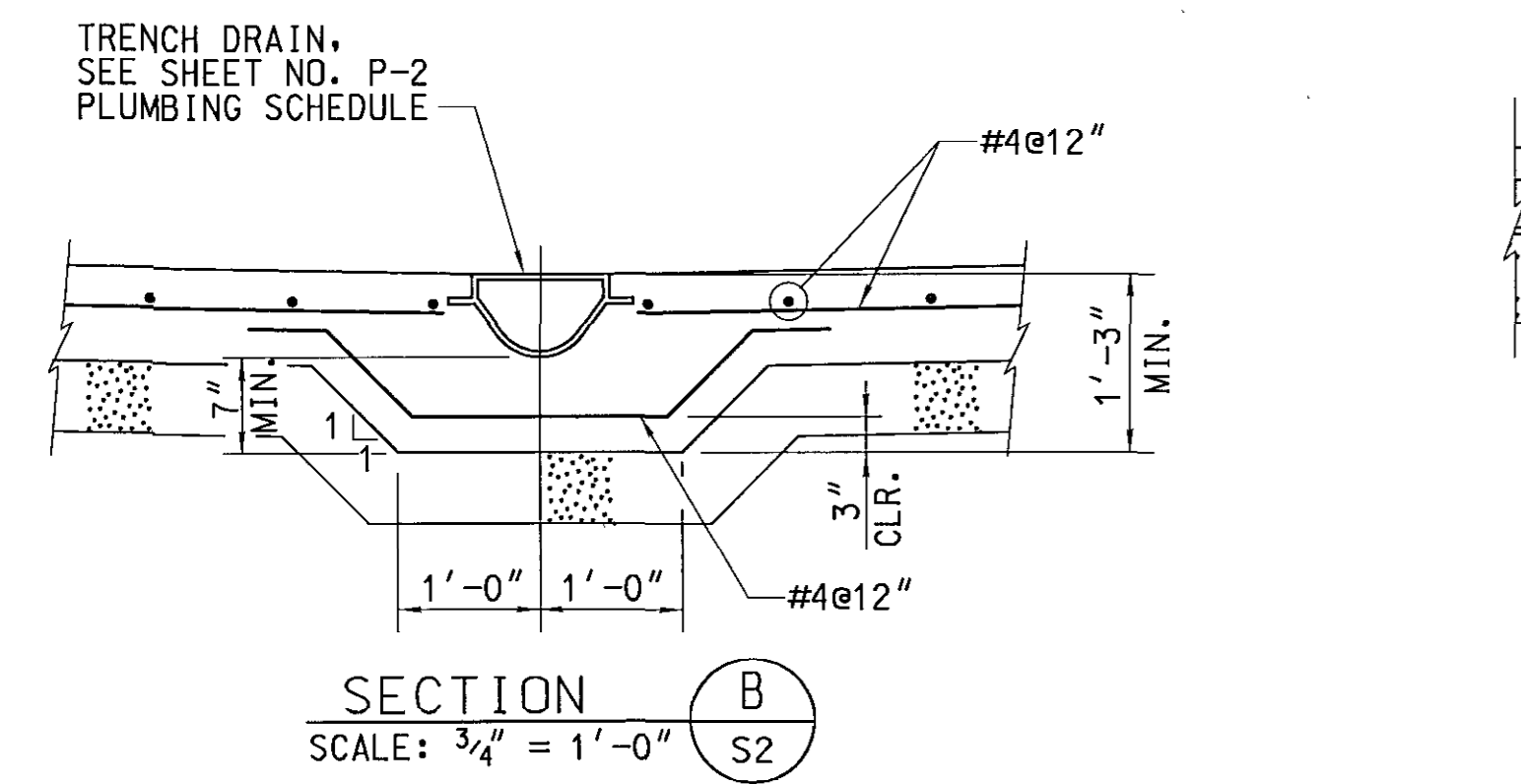
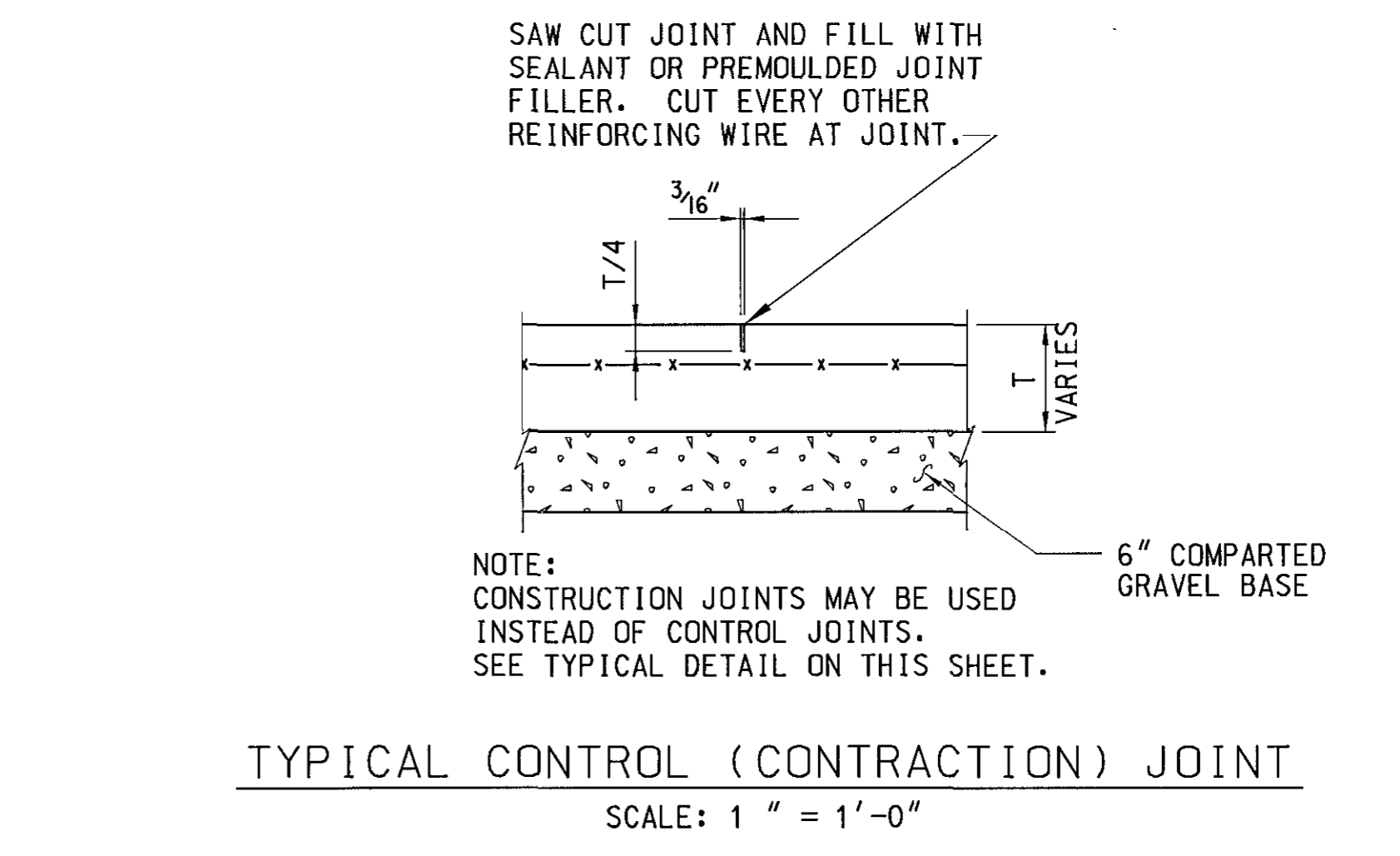
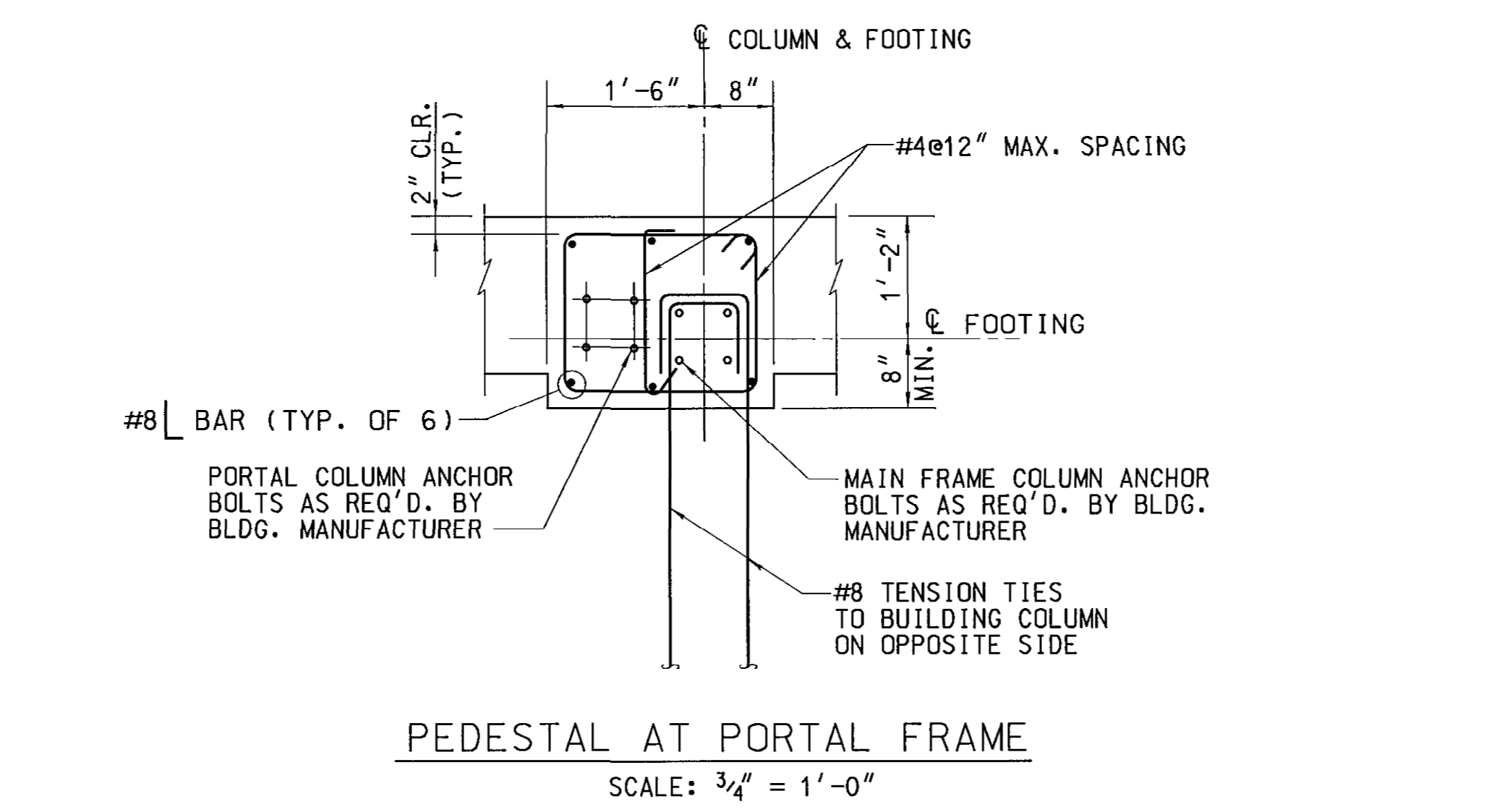
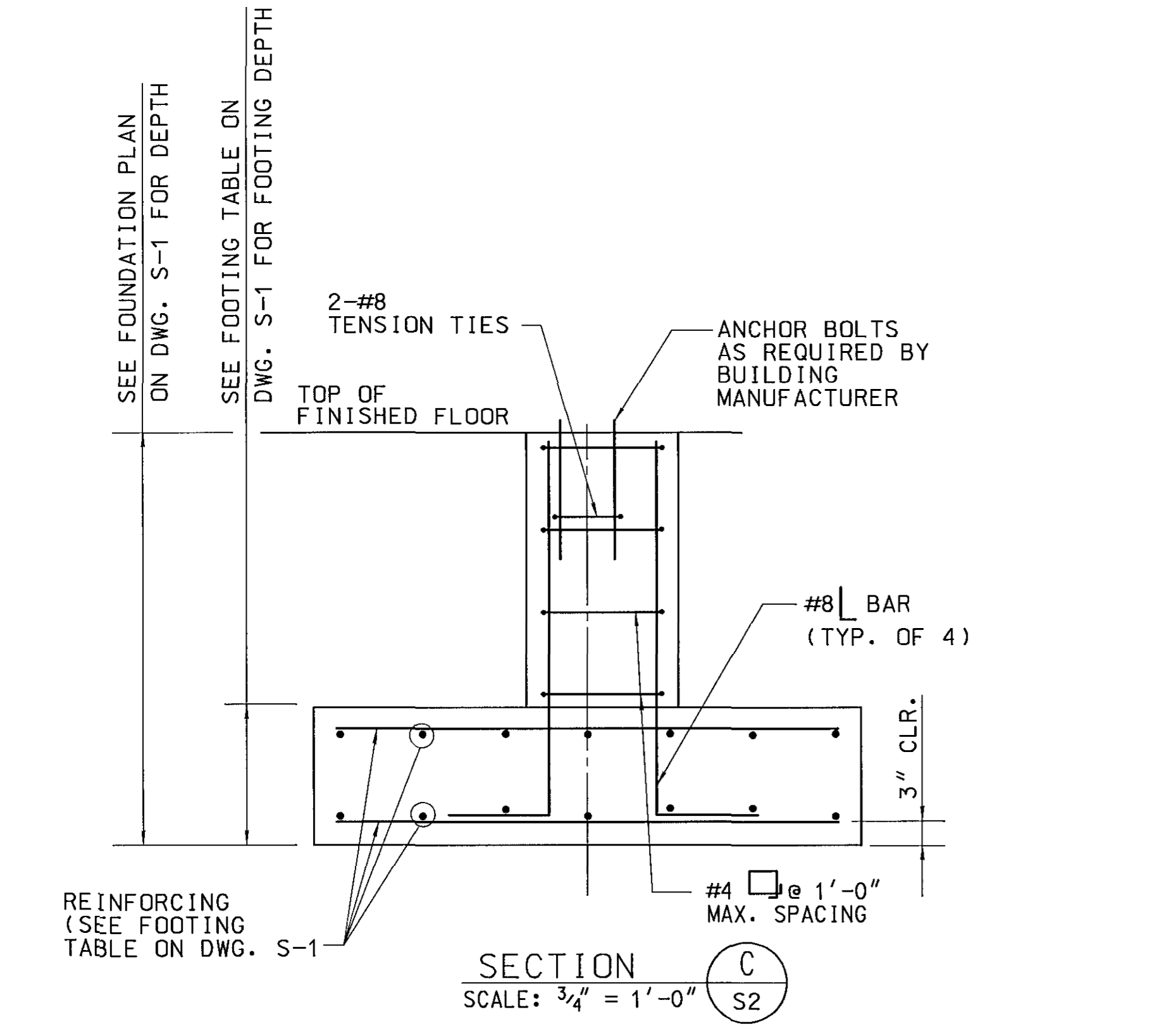
BUILDING SYSTEM CORNER FOOTING AND PIER PLAN
 SCALE: 3/4" = 1'-0"



BUILDING SYSTEM TYPICAL FOOTING AND PIER PLAN
 SCALE: 3/4" = 1'-0"



BUILDING SYSTEM INSIDE CORNER FOOTING AND PIER PLAN
 SCALE: 3/4" = 1'-0"



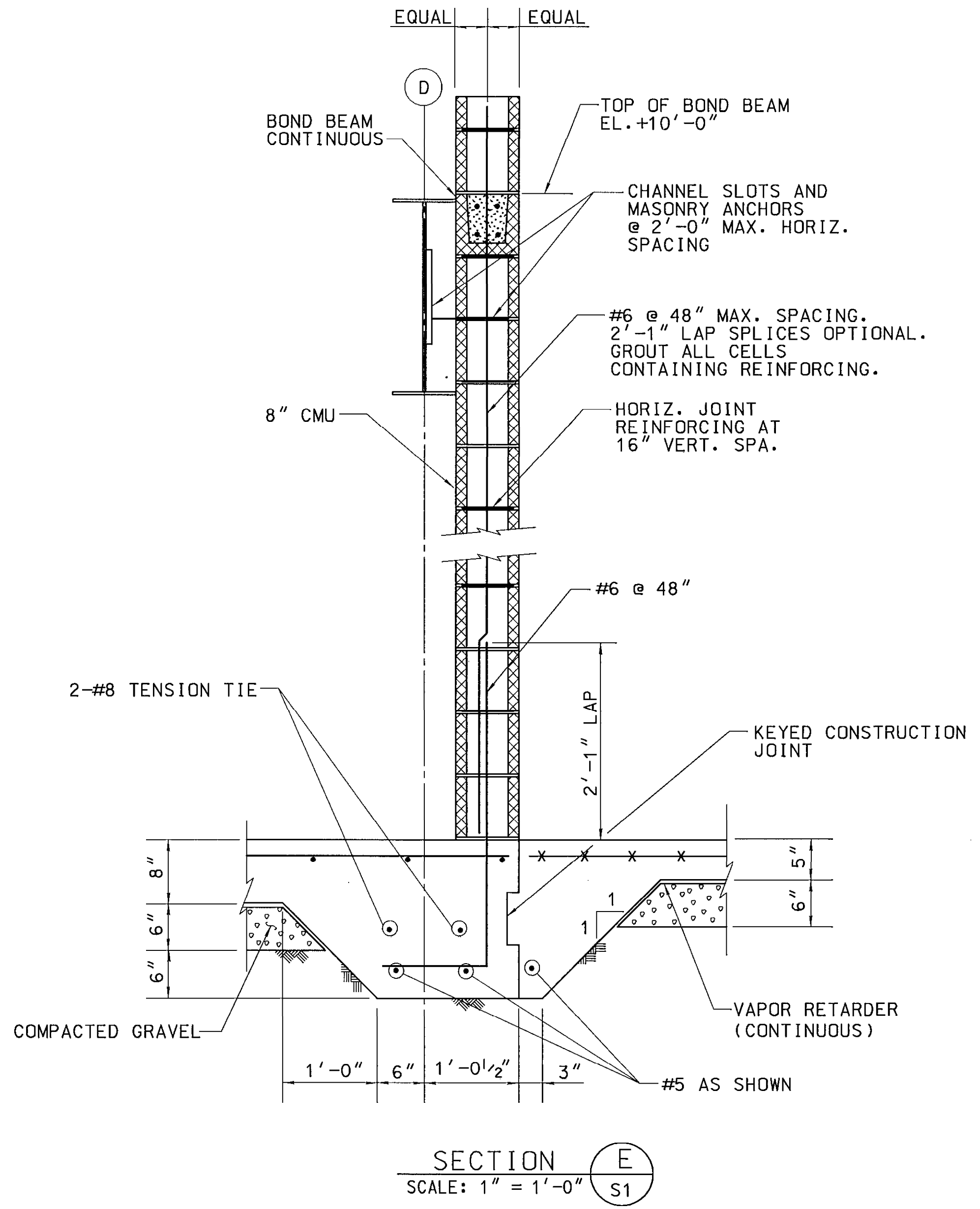


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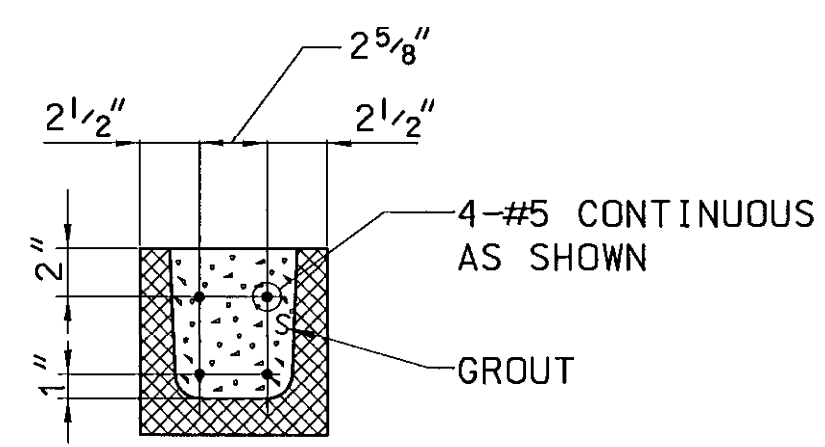
MAINTENANCE BUILDING STRUCTURAL NOTES

1. CODES: MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE FOLLOWING CODES AND STANDARDS AS APPLICABLE
 HOWARD COUNTY BUILDING CODE
 INTERNATIONAL BUILDING CODE (IBC) 2006
 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION-ALLOWABLE STRESS DESIGN (1989)
 AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-05)
 AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES (ACI 530-05/ASCE 5-05/TMS 402-05)
 METAL BUILDING MANUFACTURER'S ASSOCIATION METAL BUILDING SYSTEMS MANUAL (2006)
2. DESIGN LOADS FOR PRE-ENGINEERED METAL BUILDING
 DEAD LOAD: ACTUAL CALCULATED DEAD LOAD
 ROOF LIVE LOAD: 30 PSF MINIMUM WITH NO REDUCTION
 SNOW LOAD:
 GROUND SNOW LOAD: 25 PSF
 SNOW EXPOSURE FACTOR: 0.9
 SNOW LOAD IMPORTANCE FACTOR: 1.0
 THERMAL FACTOR: 1.1
 WIND LOAD
 BASIC WIND SPEED: 90 MPH
 WIND IMPORTANCE FACTOR: 1.00
 WIND EXPOSURE: C
 INTERNAL PRESSURE COEFFICIENTS: +0.80, -0.30
 COMPONENTS AND CLADDING: AS REQUIRED BY LOCATION
 SEISMIC
 SEISMIC USE GROUP: 1
 SITE CLASS: D
 SPECTRAL RESPONSE COEFFICIENTS: SDS=0.203, SD1=0.101
 DESIGN CATEGORY: A
 BASIC SEISMIC FORCE RESISTING SYSTEM: AS APPLICABLE
 DESIGN BASE SHEAR: AS APPLICABLE
 ANALYSIS PROCEDURE: AS APPLICABLE
3. FLOOR LIVE LOAD
 OFFICE AREA: 100 PSF
 MAINTENANCE BAY AREA: 250 PSF, AASHTO H-20
4. FOUNDATION
 DESIGN SOIL BEARING PRESSURE FOR SPREAD FOOTINGS AND STRIP FOOTINGS IS 2000 PSF
 FOUNDATION DESIGN LOADS: THE FOUNDATIONS SHOWN ON THE DRAWINGS ARE DESIGNED TO WITHSTAND THE FOLLOWING LOADINGS. IF THE BUILDING PROVIDED WOULD EXCEED THESE DESIGN LOADINGS, THE FOUNDATION SHALL BE REDESIGNED BY THE CONTRACTOR TO SUPPORT THE LOADING IMPOSED BY THE BUILDING PROVIDED.

5. CONCRETE
 28 DAY COMPRESSIVE STRENGTH, f'_c : 3500 PSI
 REINFORCING STEEL BARS: ASTM A-615 GRADE 60
 WELDED WIRE MESH: ASTM A-185
 EXPOSED EDGES SHALL BE CHAMFERED $\frac{3}{4}$ " BY $\frac{3}{4}$ " UNLESS INDICATED OTHERWISE.
6. MASONRY
 MINIMUM COMPRESSIVE STRENGTH OF MASONRY: f'_m : 1500 PSI
 HOLLOW CONCRETE MASONRY UNITS: ASTM C-90
 SOLID CONCRETE MASONRY UNITS: ASTM C-145
 MORTAR: PORTLAND CEMENT AND LIME, TYPE M OR S
 GROUT: ASTM C-476 COARSE GROUT, f'_c = 3500 PSI AT 28 DAYS
7. STRUCTURAL AND MISCELLANEOUS METALS
 WIDE FLANGE BEAMS: ASTM A-992
 CHANNELS, ANGLES PLATES AND SHAPES: ASTM A-36 OR ASTM A 572 GRADE 50
 PIPE: ASTM A-53 GRADE B, TYPE E OR S
 TUBES: ASTM A-500, GRADE B
 HIGH STRENGTH BOLTS: ASTM A-325
 COMMON BOLTS: ASTM A-307
 ANCHOR BOLTS AND THREADED RODS: ASTM A-36
 WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY (AWS) STRUCTURAL WELDING CODE (D1.1)
 WELDING ELECTRODES: E70XX
 ALL ALUMINUM IN CONTACT WITH CONCRETE SHALL HAVE TWO COATS OF BITUMASTIC PAINT



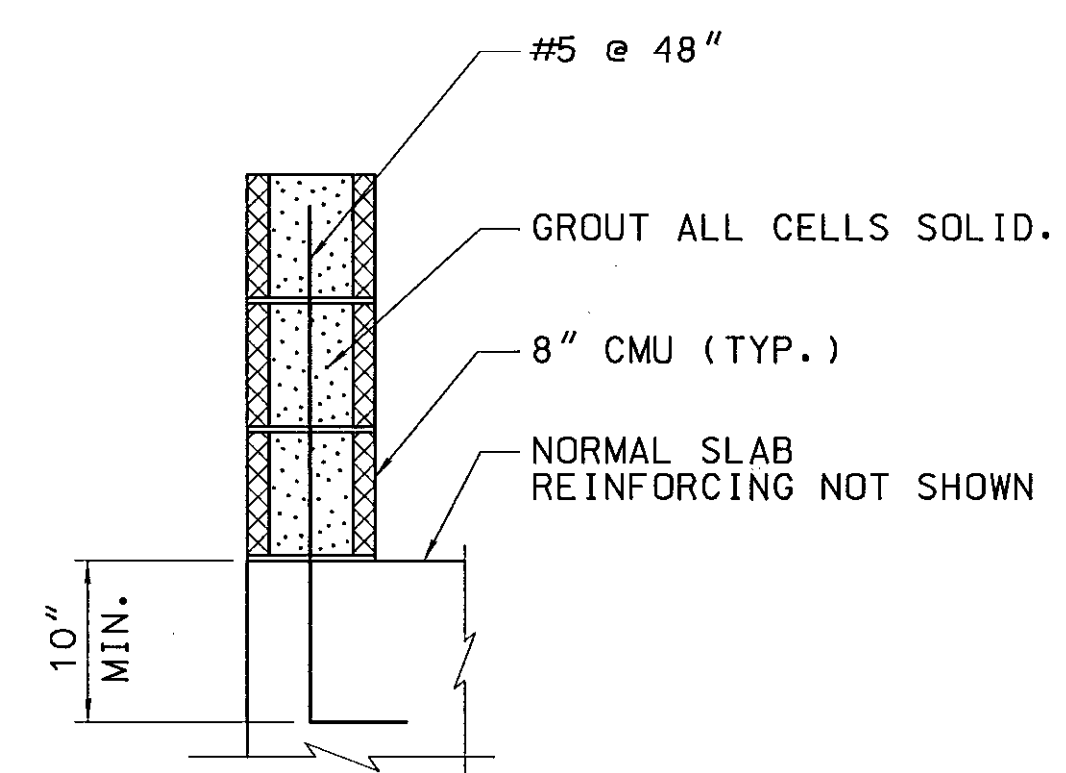
SECTION E
 SCALE: 1" = 1'-0"
 S1



8" BOND BEAM / LINTEL DETAIL
 SCALE: 1 1/2" = 1'-0"

SHOP AREA	TYPICAL FRAME	END FRAME	PORTAL FRAME
DOWNWARD VERTICAL LOAD	29.2 KIPS	19.5 KIPS	6.0 KIPS
UPWARD VERTICAL LOAD	22.0 KIPS	14.7 KIPS	5.2 KIPS
OUTWARD HORIZONTAL LOAD	17.0 KIPS	11.3 KIPS	0.0 KIPS
INWARD HORIZONTAL LOAD	10.0 KIPS	10.0 KIPS	0.0 KIPS

OFFICE AREA	TYPICAL FRAME	END FRAME	PORTAL FRAME
DOWNWARD VERTICAL LOAD	20.0 KIPS	20.0 KIPS	N / A
UPWARD VERTICAL LOAD	10.8 KIPS	10.8 KIPS	N / A
OUTWARD HORIZONTAL LOAD	11.2 KIPS	11.2 KIPS	N / A
INWARD HORIZONTAL LOAD	10.0 KIPS	10.0 KIPS	N / A



RETAINING WALL DETAIL
 SCALE: 1" = 1'-0"

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4-19-07

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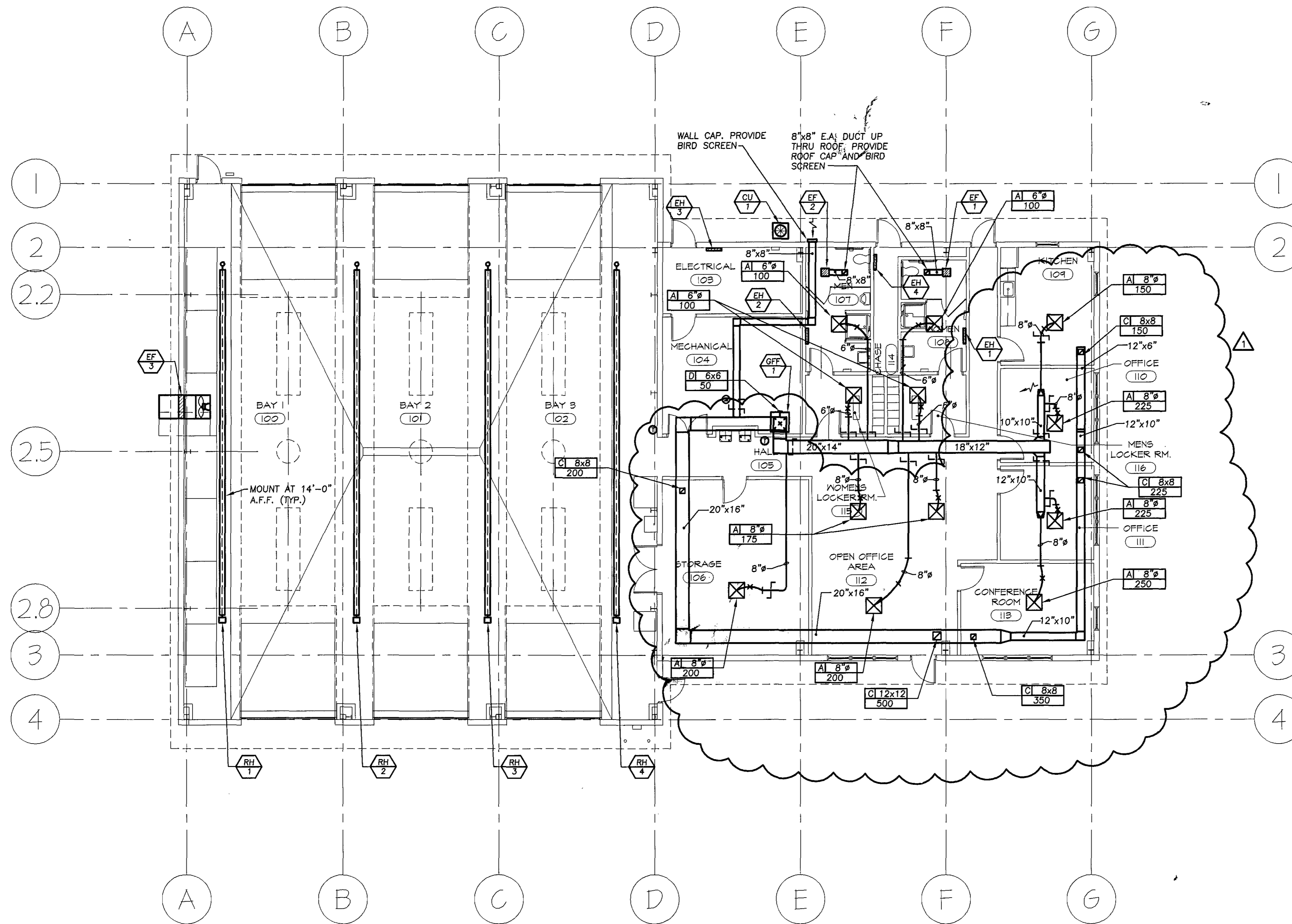
NO.	DATE	DESCRIPTION

NEW
 MAINTENANCE
 FACILITY
 ROCKBURN PARK
 FOR
 HOWARD COUNTY
 PARKS & RECREATION

PROJECT NUMBER:	0503
PRELIMINARY ISSUE:	4-10-06
CONSTRUCTION ISSUE:	08/18/06
CADD FILE NAME:	01053422\53

STRUCTURAL
 NOTES

SHEET NUMBER:
 S-3



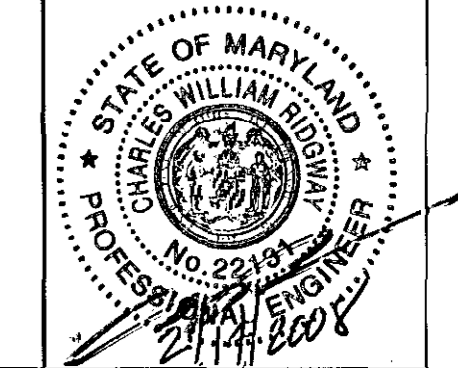
FLOOR PLAN - MECHANICAL

SCALE: 1/8" = 1'-0"
 0 2' 4' 8' 16'

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NO.	DATE	DESCRIPTION
1	2/15/08	PERMIT COMMENTS

**NEW MAINTENANCE FACILITY
 ROCKBURN PARK
 FOR HOWARD COUNTY PARKS & RECREATION**

PROJECT NUMBER: 0503
 PRELIMINARY ISSUE: 09/29/05
 CONSTRUCTION ISSUE: 08/18/06
 CADD FILE NAME:

FLOOR PLAN MECHANICAL

SHEET NUMBER:
M-1

PERMIT REVISION 02/15/2008
 SRBR No: 05089

SYMBOLS & ABBREVIATIONS LIST

—CD—	CLEARWATER DRAIN
D	DUCT DROP
R	DUCT RISE
	A.T.C. DAMPER (MOTOR OPERATED)
	SUPPLY AIR DEVICE. ARROWS INDICATE DIRECTION OF BLOW
	MANUAL VOLUME DAMPER - M.V.D.
	S.M.O.K.E. DAMPER, S.D.
	FIRE DAMPER, F.D.
	CONICAL TEE (SPIN-IN TYPE)
	BRANCH DUCT WITH 45° CLINCH COLLAR CONNECTION TO MAIN TRUNK DUCT
	TURNING VANES
	FLEXIBLE ROUND DUCT
	RIGID ROUND DUCT
Ⓢ	THERMOSTAT
C.F.M.	CUBIC FEET PER MINUTE
F.D.	FIRE DAMPER
G.F.F.	GAS FIRED FURNACE
N	NORTH
O.A.	OUTSIDE AIR
O.E.D.	OPEN END DUCT, WITH GALVANIZED WIRE MESH
R.A.	RETURN AIR
R.A.R.	RETURN AIR REGISTER
CU	CONDENSING UNIT
RTU	ROOF TOP HVAC UNIT
EF	EXHAUST FAN
S	SOUTH
S.A.	SUPPLY AIR
T.D.	TRANSFER DUCT
Ⓐ	PLAN NOTE REFERENCE SYMBOL
C.O.	CLEAN-OUT
EH	ELECTRIC HEATER
F.C.O.	F.C.O. FLUSH WITH FINISHED FLOOR
RH	RADIANT HEATER
N	NORTH
S	SOUTH
A.F.F.	ABOVE FINISHED FLOOR
B.F.C.	BELOW FINISHED CEILING

LETTER REPRESENTS MANUFACTURER & MODEL NO.

AREA STATES NECK SIZES

AIR DEVICE DESIGNATION

AREA STATES CFM

STATES TYPE OF SYSTEM.

MECHANICAL EQUIPMENT DESIGNATION

STATES NUMBER OR LETTER CORRESPONDING TO RELATED SCHEDULE.

GAS-FIRED FURNACE WITH D.X. COOLING COIL SCHEDULE

MARK	FORCED AIR FURNACE										DIRECT EXPANSION COOLING COIL						
	AFUE	C.F.M.	OUTDOOR CFM	E.S.P.	CAPACITY BTU/HR		H.P.	VENT SIZE	V-P-H	MCA	MOCP	MANUFACTURER & MODEL NO.	REMARKS	TYPE	COOLING CAPACITY BTU/HR	MANUFACTURER & MODEL NO.	REMARKS
GF 1	93.1	2,000	200	0.5"	80,000	75,000	3/4	2"φ	120-1-60	18.4	20	"CARRIER" '58MXA060'	FURNISH 2" CONCENTRIC ROOF TERMINATION KIT, FILTER RACK, FILTER AND THERMOSTAT.	HORIZONTAL FULLY CASED	54,500	"CARRIER" 'CD5AXA060024'	PROVIDE EXPANSION VALVE

EXHAUST FAN SCHEDULE

MARK	SERVES	CFM	ESP	RPM	HP WATTS	V-P-H	DRIVE	MANUFACTURER & MODEL NO.	TYPE	CONTROL*	REMARKS
EF 1	WOMEN RESTROOM	250	3/8"	1000	83	120-1	DIRECT	"GREENHECK" 'SP-A250'	CEILING	WALL-SWITCH	SEE NOTES 1, 2, AND 3
EF 2	MENS RESTROOM	250	3/8"	1000	83	120-1	DIRECT	"GREENHECK" 'SP-A250'	CEILING	WALL-SWITCH	SEE NOTES 1, 2, AND 3
EF 3	BAYS	6240	3/8"	610	1/2	120-1	BELT	"GREENHECK" 'SBE-1L30-3'	WALL PROP	T'STAT	SEE NOTES 1, 2, AND 4

REMARKS:
 1. PROVIDE BACKDRAFT DAMPER.
 2. PROVIDE DISCONNECT SWITCH.
 3. CONTROLLED BY LIGHT SWITCH.
 4. PROVIDE WALL COLLAR, MOTOR SIDE GUARD, MOTORIZED BACKDRAFT, DAMPER GUARD & WEATHER HOOD. OPERATE BY REVERSE ACTING THERMOSTAT. SET POINT 60°F (ADJUSTABLE)

AIR COOLED CONDENSING UNIT SCHEDULE

MARK	SERVES	TOTAL COOLING CAPACITY BTU/HR	SEER	M.C.A.	MOCP	V-P-H	MANUFACTURER & MODEL NO.	REMARKS
CU 1	SEE PLAN	54,500	10.5	37.4	60	208-1-60	"CARRIER" '38CKC060301'	PROVIDE REFRIGERANT LINE KIT AND HOUSEKEEPING PAD

AIR DEVICE SCHEDULE

MARK	SYSTEM TYPE	MANUFACTURER & MODEL NO.	REMARKS
A	SUPPLY	"TITUS" - "PAS" MODEL, 24"x24" CEILING MODULE, ALL STEEL CONSTRUCTION, STANDARD WHITE FINISH	SEE PLAN FOR NECK SIZE.
	DIFFUSER		
B	RETURN	"TITUS" - "PAR" MODEL, PERFORATED RETURN, 24"x24" CEILING MODULE, STANDARD WHITE FINISH	SEE PLAN FOR NECK SIZE.
	GRILLE		
C	TRANSFER	"TITUS" - "PAR" MODEL, PERFORATED RETURN, 24"x24" CEILING MODULE, STANDARD WHITE FINISH	SEE PLAN FOR NECK SIZE.
	GRILLE		
D	SUPPLY	"TITUS" - "300RL" SERIES, ALL STEEL CONSTRUCTION, STANDARD WHITE FINISH	SEE PLAN FOR SIZE.
	REGISTER		

ELECTRIC HEATER SCHEDULE

MARK	TYPE	WATTS	BTU/HR	V-P-H	MANUF. & MODEL NO.	REMARKS
EH 1	RECESSED	2,000	6,826	208-1-60	"Q-MARK" 'AWH-4405-2'	1
EH 2	RECESSED	2,000	6,826	208-1-60	"Q-MARK" 'AWH-4405-2'	1
EH 3	RECESSED	2,000	6,826	208-1-60	"Q-MARK" 'AWH-4405-2'	1
EH 4	UTILITY	500	1,706	120-1-60	"Q-MARK" 'HUT500'	1

REMARKS:
 1. PROVIDE MOUNTING BRACKET, DISCONNECT SWITCH, UNIT MOUNTED THERMOSTAT.

RADIANT HEATER SCHEDULE

MARK	SERVES	INPUT BTU/HR	MANUFACTURER & MODEL NO.	AMPS	V-P-H	REMARKS
RH 1	BAYS	100,000	"AMBI-RAD" 'PT100'	1.4	120-1-60	PROVIDE TURBULATOR IN LAST 6' OF TUBE, FLUE, MOUNT 14'-0" A.F.F.
RH 2	BAYS	100,000	"AMBI-RAD" 'PT100'	1.4	120-1-60	PROVIDE TURBULATOR IN LAST 6' OF TUBE, FLUE, MOUNT 14'-0" A.F.F.
RH 3	BAYS	100,000	"AMBI-RAD" 'PT100'	1.4	120-1-60	PROVIDE TURBULATOR IN LAST 6' OF TUBE, FLUE, MOUNT 14'-0" A.F.F.
RH 4	BAYS	100,000	"AMBI-RAD" 'PT100'	1.4	120-1-60	PROVIDE TURBULATOR IN LAST 6' OF TUBE, FLUE, MOUNT 14'-0" A.F.F.



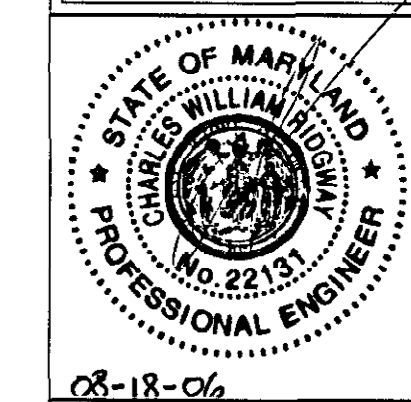
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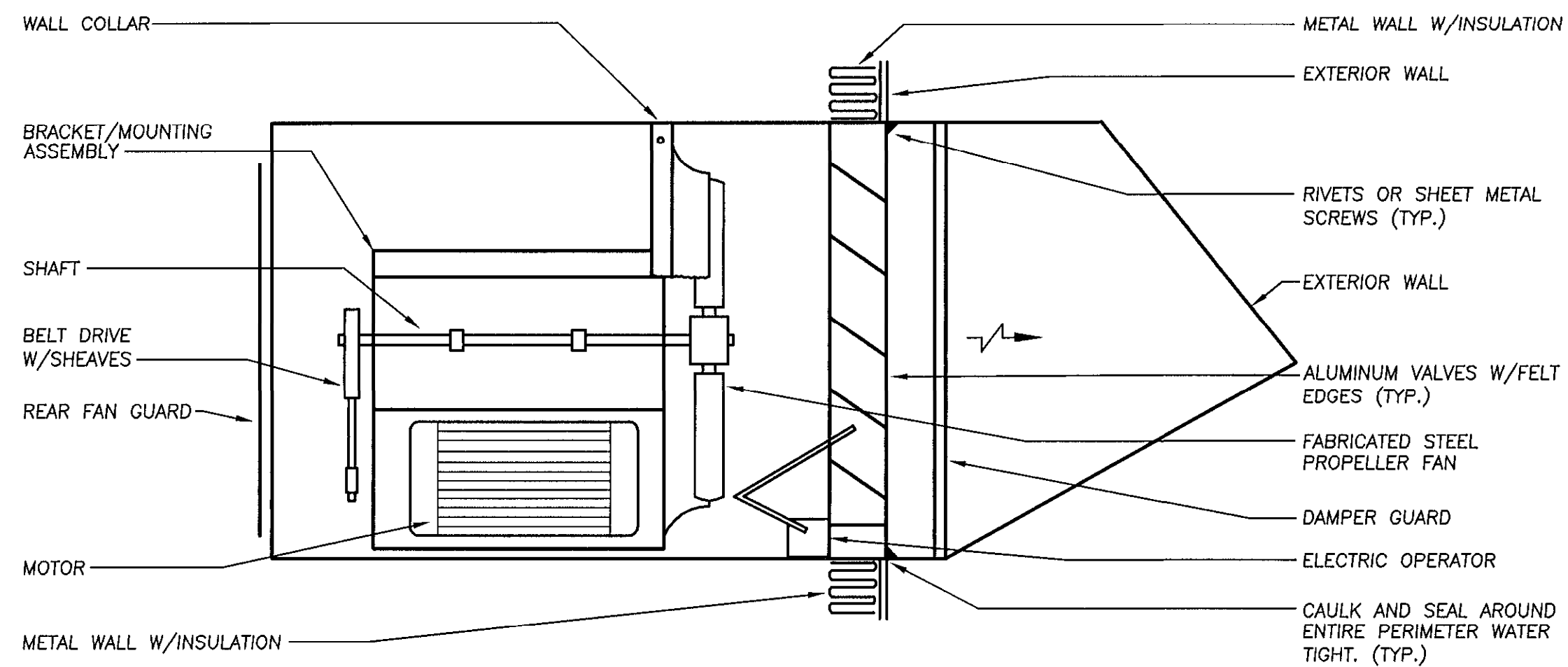
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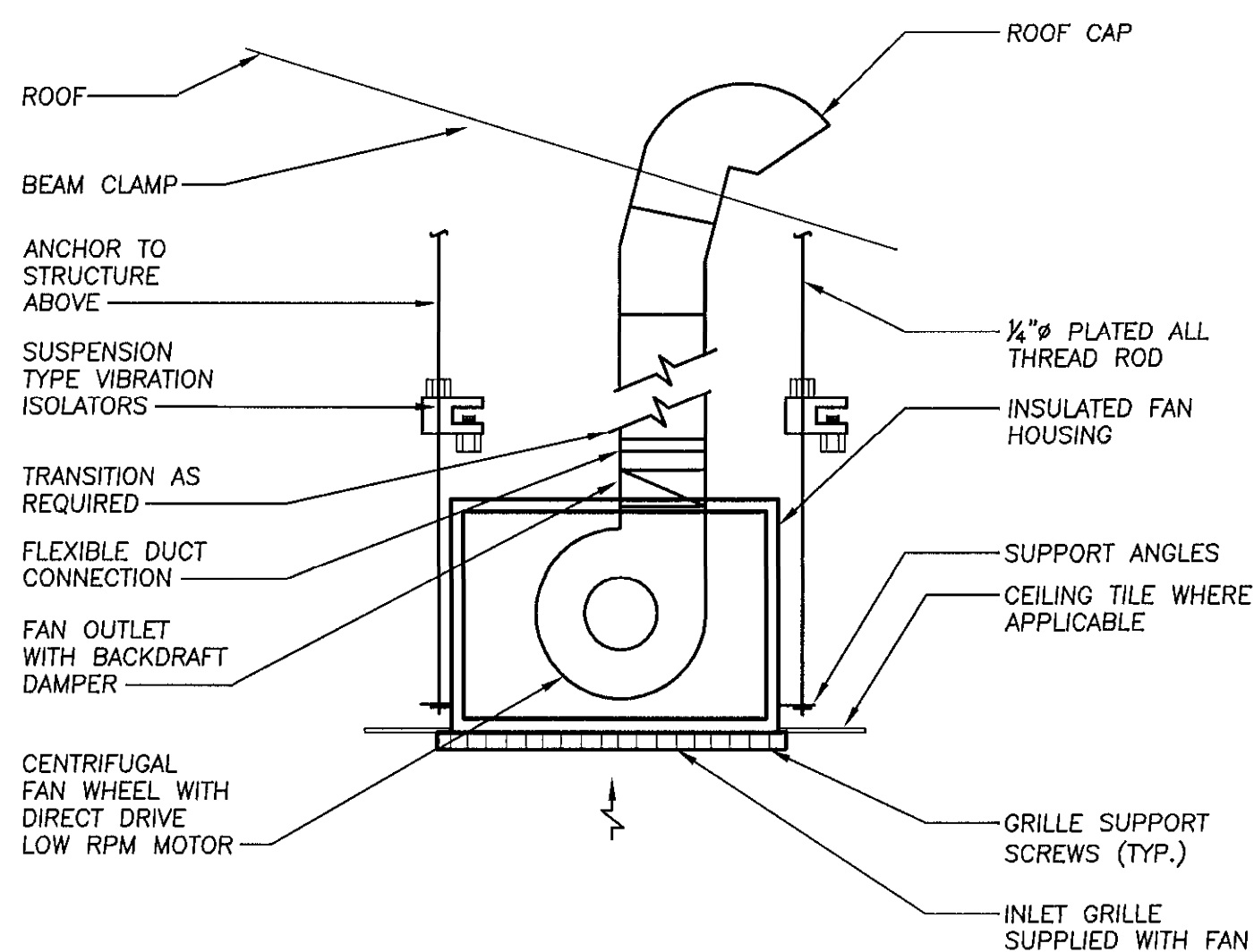
MECHANICAL SCHEDULE

SHEET NUMBER:
M-2
 27 of 38



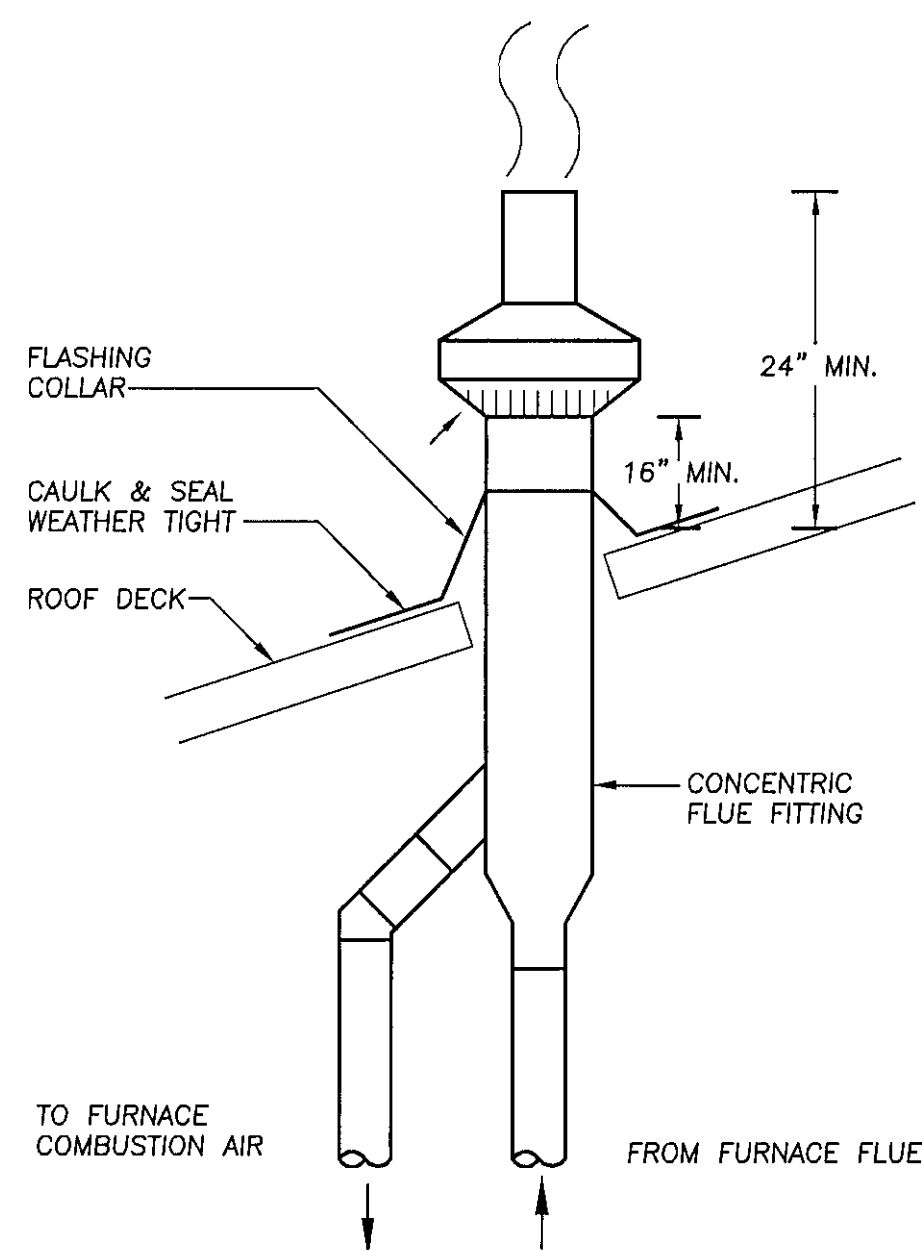
WALL MOUNTED PROPELLER TYPE EXHAUST FAN DETAIL

NO SCALE



CEILING MOUNTED EXHAUST FAN WITH ROOF CAP DETAIL

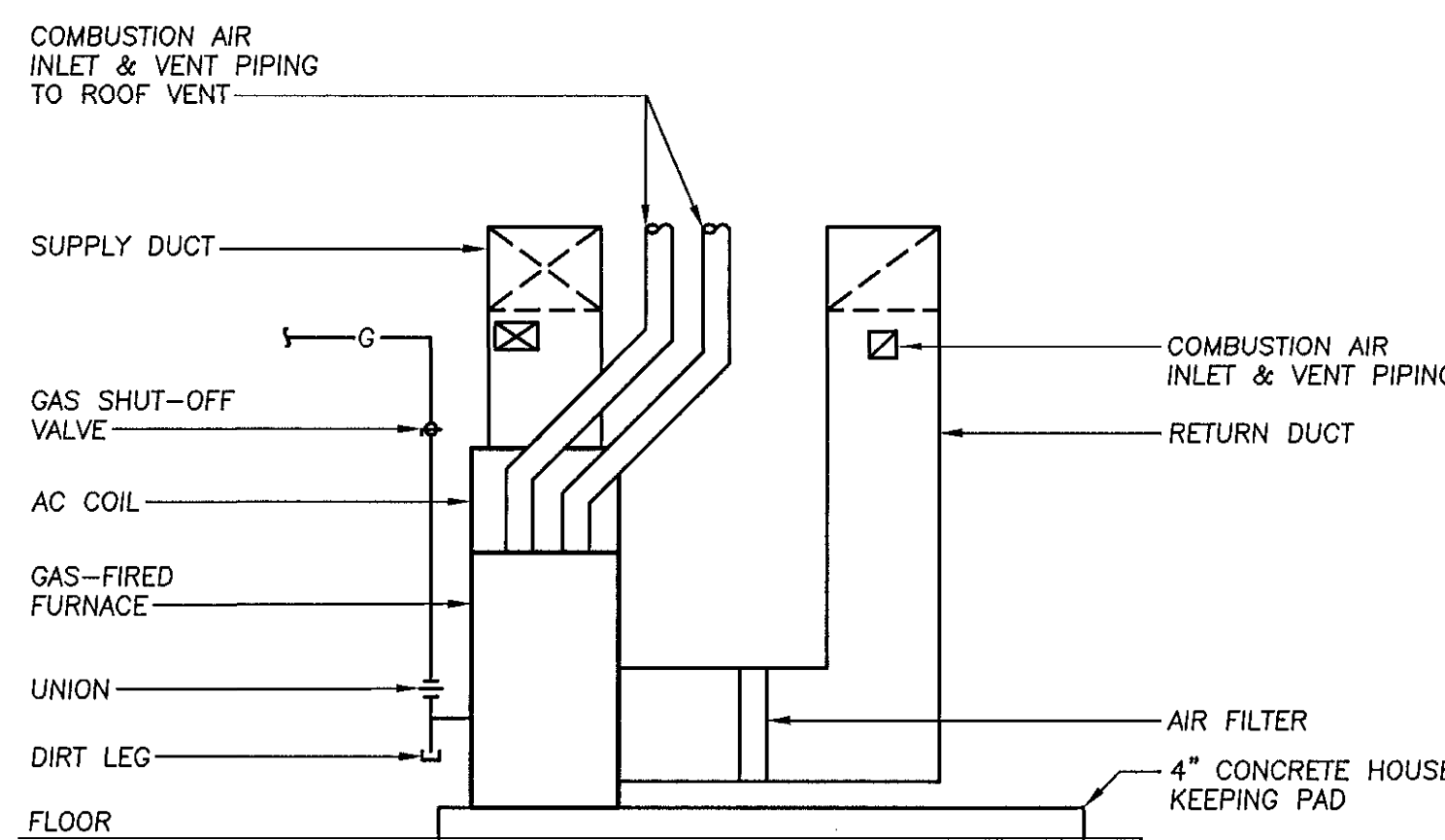
NO SCALE



CONCENTRIC FLUE/INLET VENT DETAIL

NO SCALE

NOTE: SUPPORT FLUE FITTING, VENT & COMBUSTION AIR PIPING FROM STRUCTURE AS REQUIRED.



FURNACE DETAIL

NO SCALE

MECHANICAL SPECIFICATIONS

1. GENERAL

A. The GENERAL AND SPECIAL CONDITIONS shall govern this work as they apply.

2. SCOPE

A. Mechanical work includes labor, materials and equipment, machinery and services necessary to provide complete heating, cooling and ventilating systems as hereinafter specified and shown on drawings, including layout of work and coordination of work with that specified elsewhere.

B. Work includes, but is not limited to the following:

1. HVAC installation.
2. All required temperature controls.
3. All ductwork and ventilation indicated.
4. Balancing of heating, air conditioning and ventilation systems to design parameters.

3. GENERAL REQUIREMENTS

A. All work shall be in accordance with the requirements of the applicable Building Code and all other regulatory bodies or agencies having jurisdiction. All systems shall be complete. The Contractor shall do all excavation and back filling necessary to install underground piping included under this section.

B. Contractor shall obtain and pay for all permits, licenses and inspections required under this section.

C. The Contractor shall guarantee all materials and workmanship against defects for a period of one year after final acceptance of the work.

D. Unless noted otherwise, all material shall be new and shall bear the Underwriter's Label where applicable.

E. All work shall be subject to the requirements of all sections that may interlock with this section in any way.

F. Electrical work performed under this Section shall comply with the requirements set forth under the "ELECTRICAL WORKS" section. All motors 1/2hp and over, shall generally be wound for 208-volt, 3-phase, 60-cycle current, unless otherwise noted.

G. Provide all foundations and supports for equipment furnished under this section. Equipment mounted outside shall be placed on a 5" concrete pad.

4. COORDINATION OF TRADES

A. The Subcontractor shall give full cooperation to other trades and shall furnish in writing, with copies to the Architect, any information necessary to permit the work of the trades to be installed in proper sequence and with the least possible interference or delay.

B. If the Subcontractor install his work without coordinating with other trades, and the installation interferes with their installation, he shall make any changes necessary in this work to correct the condition without extra charge to the owner.

C. If so directed by the Architect, the Subcontractor shall provide dimensioned fabrication drawings of critical areas, at not additional cost to the owner.

5. MATERIAL LIST AND SHOP DRAWINGS

A. Contractor shall submit a complete list of material and equipment for approval by Engineer with 30 days of contract date. The list shall describe type of material, capacities and catalog numbers of equipment, and give such information as necessary for checking equipment for approval.

B. Contractor shall submit detailed shop drawings of all work and equipment for approval by the Architect and Engineer. Shop drawings shall give all pertinent information, and shall be properly checked and coordinated with other work before submission. No work shall be performed, save at Contractor's own risk, until applicable shop drawings and layout drawings have been approved. All substitute equipment shall be marked "substitute manufacturer".

C. Any changes in any trade brought about by substitutions of specified equipment shall be done at no charge to the contract price and shall be fully coordinated with all other trades. The Contractor must indicate any and all cost credits associated with using substitute equipment.

6. GUARANTEE AND SERVICE

A. Contractor shall guarantee all materials and workmanship for a period of one year after date of acceptance, and shall repair or replace, at no additional cost to the Owner, any part thereof which may become defective within guarantee period, ordinary wear and tear excepted. Contractor shall be responsible for and pay for any damages caused by or resulting from defects of his work.

B. Contractor shall provide five-year warranty on all new compressor units.

C. Contractor shall provide free service, inspection and adjustment of complete system and all necessary balancing and adjustments for one year beginning from the date of acceptance.

7. BALANCING AND CHECKING OF SYSTEMS

A. Provide all testing of all equipment; adjust operation of equipment so that all systems shall be left in perfect operating condition. All testing shall be performed during extremes of weather, as well as during intermediate seasons. All systems shall be balanced. Provide all instruments required for such test. Temperature, air supply and exhaust quantities shall be measured and tabulated for each supply and exhaust register, diffuser, or grille. Tabulation shall be submitted to the Architect.

B. Total System Balance shall be performed by an agency certified by the Associated Air Balance Council (AABC) and approved by the Owner's Representative. All work done by this agency shall be by qualified Technicians under the direct supervision of an AABC Certified Test and Balance Engineer. NEBB certified test and balancing agencies may be considered provided to comply with.

C. Total System Balance shall be performed in accordance with the latest edition of the AABC National Standards, for Total system Balance, and in accordance with the scope of the work specified.

D. Upon the completion of the work, the Test and Balance Agency shall submit 4 copies of the complete Test and Balance Report to the Engineer for review.

8. INSTRUCTIONS

A. Contractor shall provide Owner with two copies of the instructions and maintenance charts, giving detailed information on operation and maintenance of heating and cooling.

B. The Contractor shall provide a minimum of 4 hours of training to the Owner. Training shall include general operation and preventive maintenance procedures for all mechanical and plumbing systems, and equipment, including temperature controls systems.

9. CLEANING OF EQUIPMENT AND WORK AREAS

A. Upon completion, all equipment and work area shall be thoroughly cleaned, filters replaced with new, ready for use.

10. INSULATION FOR DUCTWORK

A. All new concealed supply and return ductwork shall be covered with 1" duct insulation with vapor barrier jacket. All insulation joints shall be vapor sealed.

11. HEATING AND AIR CONDITIONING UNITS

A. Provide all Mechanical Equipment as specified.

B. Provide all required vibration isolation to prevent transfer of objectionable noise and vibration to the building structure.

C. Provide proper drainage of condensate per local plumbing codes.

D. Coordinate all electrical connection requirements with Division 16.

E. All equipment shall be by one of the specified manufacturers.

F. Provide all devices and wiring necessary for proper control of each system.

12. AUTOMATIC TEMPERATURE CONTROLS

A. HVAC Systems: Provide new 7-day programmable thermostat compatible with units shown on plans.

13. DUCTWORK

A. All ductwork shall be galvanized sheetmetal of the following thickness unless noted otherwise:

Max. duct dimension	Low Pressure
12"	26 ga.
13" to 30"	24 ga.
Plenums and Casings	16 ga.

B. Provide fire dampers as shown and required. Fire dampers shall be equal in rating to the surfaces being protected and shall be UL listed. All fire dampers shall be type 'B' accordion type with fusible link. The damper shall contain a pocket to keep the damper out of the air stream in its open position. Provide access panels for all fire dampers as needed.

C. All metal ductwork shall be constructed and installed in accordance with Sheet Metal and Air Conditioning Contractor's Association "Low Pressure Duct Standards", and shall be air-tight and neat in appearance. Cross-joints in all low pressure ducts, supply, return and exhaust, shall be sealed with fire retardant sealer. Duct tape shall not be used. Interior surfaces shall be smooth and free of obstructions. All duct lines shall be true and smooth. Where exposed ducts pass through openings in partitions and ceilings, they shall be fitted with trim angles to close joints between duct and construction.

D. Furnish and install volume control dampers with locking facilities, splitters, and other devices at all locations indicated on drawings and where required to properly balance the systems and to deliver the air quantities of proper size.

E. Turning vanes shall be provided for all supply air square elbows and shall be acoustical type.

14. REGISTERS, GRILLES AND DIFFUSERS

A. Registers, grilles and diffusers, hereafter specified, refer to Price MFG. catalog. Equipment of equal quality as manufactured by Titus, Tuttle & Bailey or Metalaire may be submitted for approval.

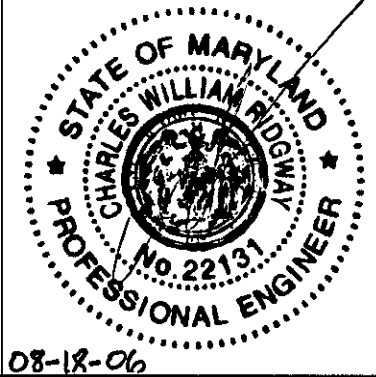
B. All supply, return and exhaust registers shall be steel registers with volume dampers. Unless otherwise indicated.



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REVISIONS

NO.	DATE	DESCRIPTION

**NEW MAINTENANCE FACILITY
ROCKBURN PARK
FOR HOWARD COUNTY PARKS
& RECREATION**

PROJECT NUMBER: 0503
PRELIMINARY ISSUE: 04/24/05
CONSTRUCTION ISSUE: 08/18/06
CADD FILE NAME:

MECHANICAL SPECIFICATIONS & DETAILS

SHEET NUMBER:

M-3

CONSTRUCTION ISSUE 08/18/2006

SRBR No: 05089

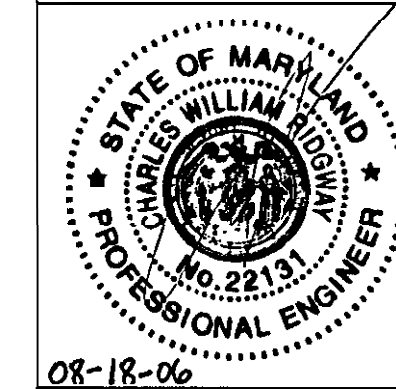
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08-18-06

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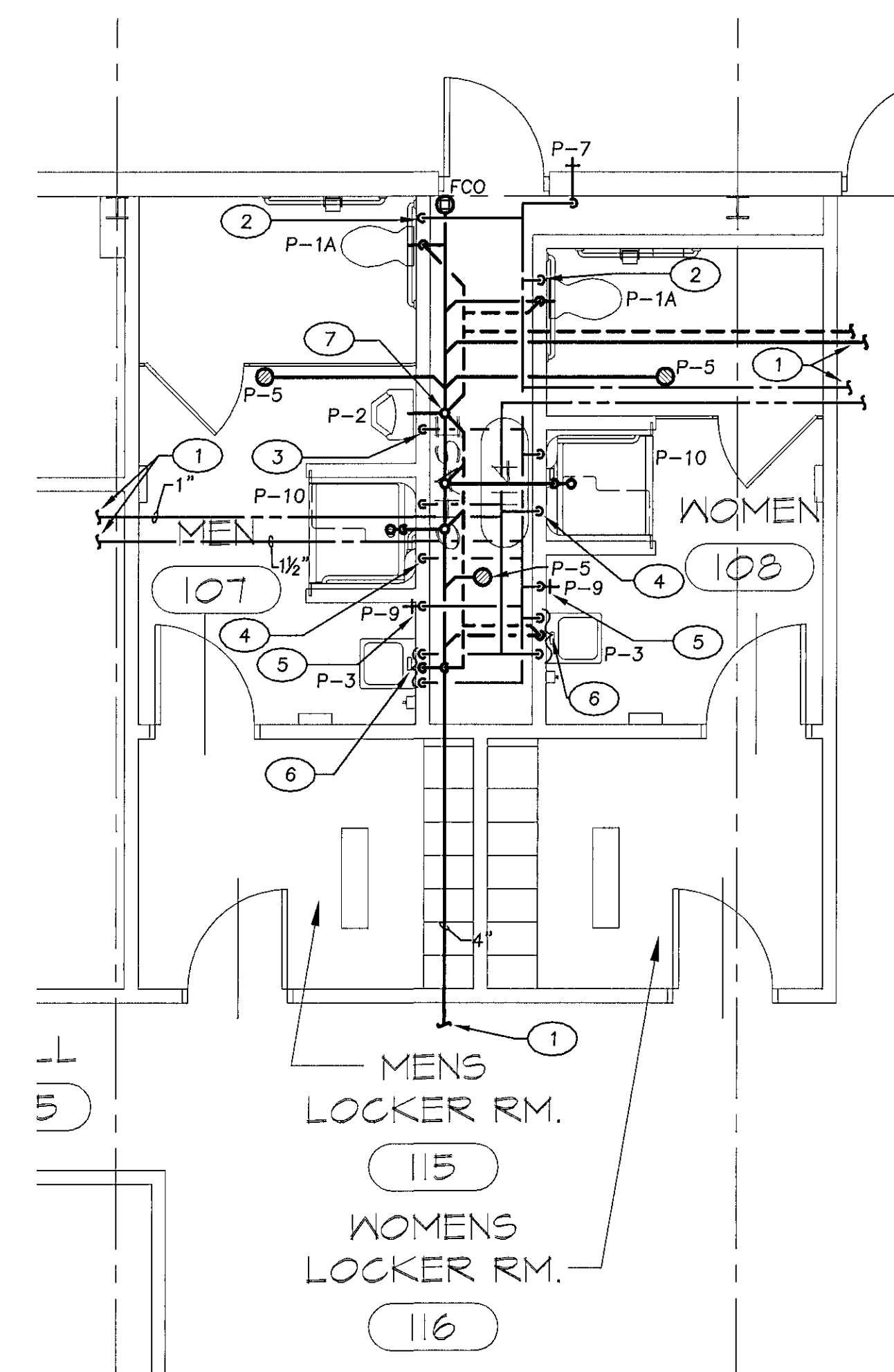
NEW
 MAINTENANCE
 FACILITY
 ROCKBURN PARK
 FOR
 HOWARD COUNTY PARKS
 & RECREATION

PROJECT NUMBER: 0503
 PRELIMINARY ISSUE: 09/29/05
 CONSTRUCTION ISSUE: 08/18/06
 CADD FILE NAME:

FLOOR PLAN
 PLUMBING

SHEET NUMBER:

P-1

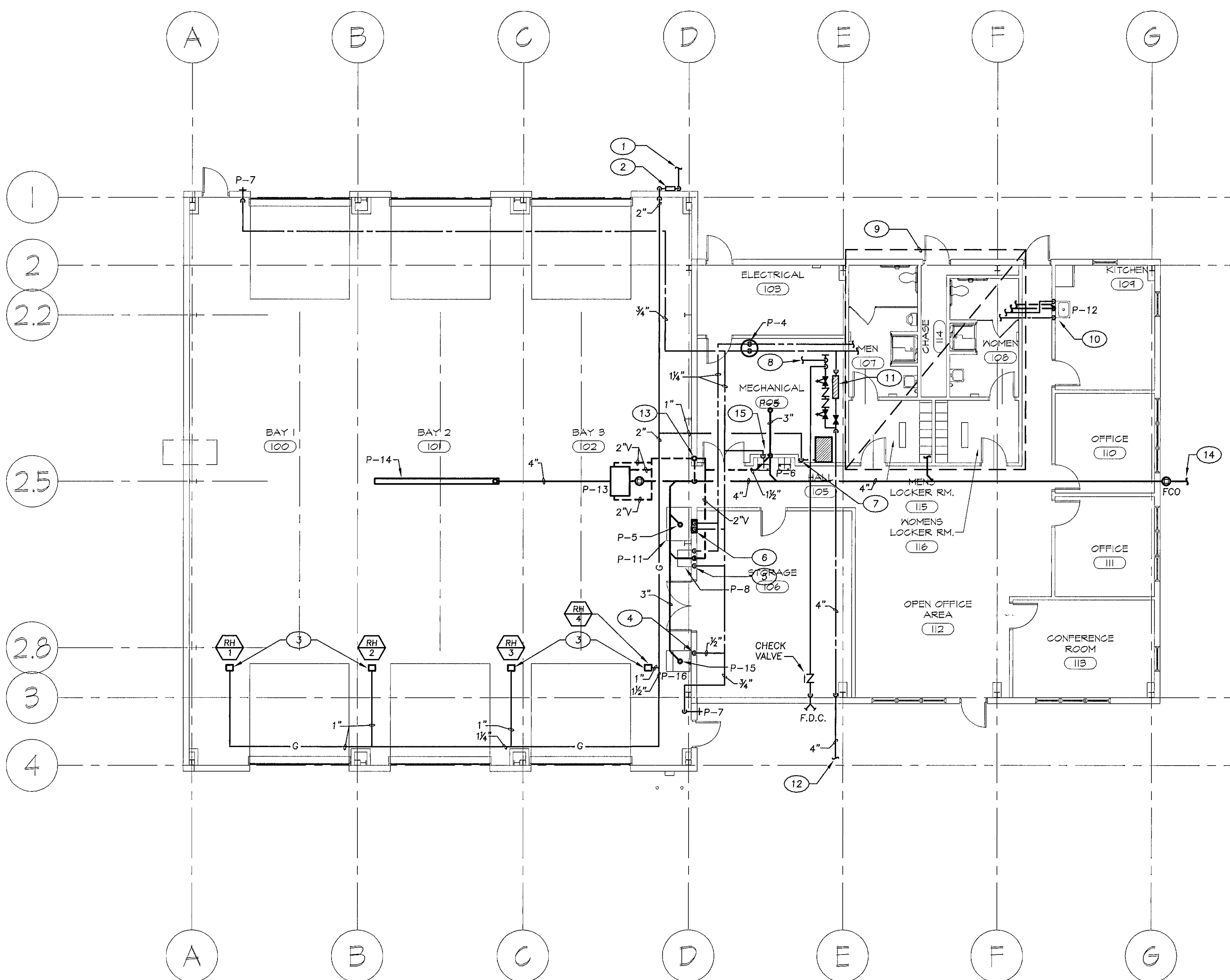


1/4" SCALE PART PLAN

SCALE: 1/4" = 1'-0"
 0 1' 2' 4' 8'

PLAN NOTES:

- 1 SEE 3/8" SCALE DWG. ON THIS SHEET FOR CONTINUATION.
- 2 1/2" CW DOWN TO WATER CLOSET.
- 3 1" CW DOWN TO URINAL.
- 4 1/2" CW, HW, 2" VENT DOWN IN WALL TO SHOWER.
- 5 3/4" CW DOWN IN WALL TO HOSE BIBB.
- 6 1/2" CW, HW, 2" VENT DOWN IN WALL TO LAVATORY.
- 7 3" VENT THRU ROOF, DOWN IN CHASE.



FLOOR PLAN - PLUMBING

SCALE: 1/8" = 1'-0"
 0 2' 4' 8' 16'

PLAN NOTES:

- | | |
|---|---|
| 1 INCOMING GAS SERVICE. SEE CIVIL DWGS. FOR CONTINUATION. | 8 TO SPRINKLER ZONES. |
| 2 GAS METER PROVIDED BY LOCAL UTILITY CO. TO HANDLE EST. LOAD 480 CFH AT 120' PIPE EQUIVALENT LENGTH, 0.3" P.D. | 9 SEE 1/4" SCALE DWG. ON THIS SHEET FOR WORK IN THIS AREA. |
| 3 1" GAS TO RADIANT HEATER. PROVIDE SHUT-OFF VALVE AND 6" DIRT LEG. | 10 1/2" CW, HW, 1 1/2" VENT DOWN IN WALL TO KITCHEN SINK. 1/2" SAN UP. |
| 4 1/2" CW DOWN TO ICE MACHINE. | 11 VALVE AND METER ASSEMBLY SEE P-3 FOR DETAIL. |
| 5 1/2" CW, HW, 2" VENT DOWN IN WALL TO SERVICE SINK. 3" SAN UP. | 12 4" INCOMING DOMESTIC WATER/SPRINKLER SERVICE. SEE CIVIL DWG. FOR CONTINUATION. |
| 6 1/4" CW, HW DOWN IN WALL TO EMERGENCY SHOWER. | 13 3" VENT THRU ROOF, DOWN IN WALL. |
| 7 1" GAS DOWN TO FURNACE. PROVIDE SHUT-OFF VALVE AND 6" DIRT LEG. | 14 4" SAN 5FT. FROM BUILDING. SEE CIVIL DWG. FOR CONTINUATION. |
| | 15 1/2" CW, 2" VENT DOWN IN WALL TO WATER COOLER. 2" SAN UP. |

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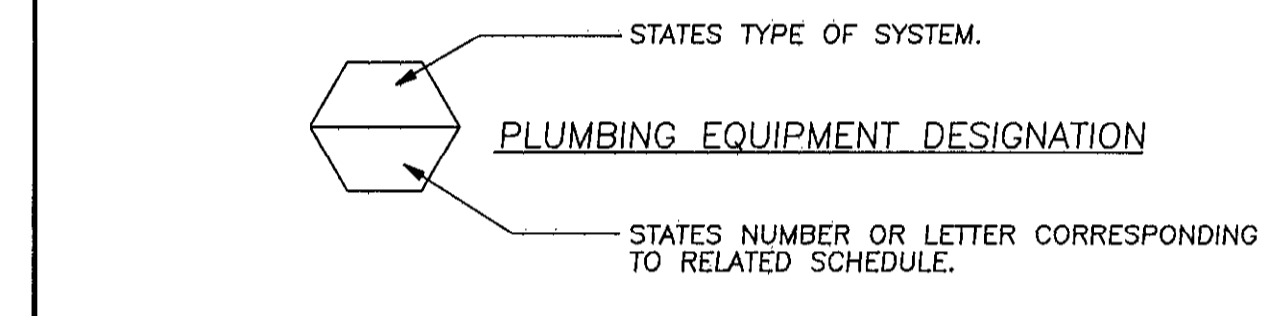
PLUMBING FIXTURE							
DESIG	FIXTURE TYPE	HW	CW	SAN	VENT	SPECIFICATIONS	REMARKS
P-1A	WATER CLOSET	-	1 1/2"	3"	-	"KOHLER" NO. 'K4460-C'; WALL HUNG, ELONGATED BOWL, AND 1.6 GPF. FURNISH W/ "SLOAN" FLUSH VALVE MODEL NO. 'REGALC152-1.6'	1,2,4,6,10
P-2	URINAL	-	1"	3"	2"	"KOHLER" MODEL NO. 'K-4989-R', SIPHON-JET FLUSHING ACTION, VITREOUS CHINA 1 GPF. FURNISH W/ "SLOAN" FLUSH VALVE 'REGAL 190-1'	1,10,2
P-3	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	"KOHLER" MODEL NO. 'K-1729', 4" CENTER, FURNISH WITH "SLOAN" FAUCET MODEL NO. 'ETF600'	1,2,3,10
P-4	WATER HEATER	3/4"	3/4"	-	-	"STATE" MODEL NO. 'CPE-50-20RTA'	1,8
P-5	FLOOR DRAIN	-	-	3"	-	"JOSAM" MODEL NO. '30000A'	1,5,10
P-6	ELECTRIC WATER COOLER	-	1/2"	1 1/2"	1 1/2"	"OASIS" MODEL NO. 'P8AMSL', 8.0 GPH, 1/4HP COMP., 4.6 AMPS, 120V-1P-60H	1,9,10
P-7	WALL HYDRANT	-	3/4"	-	-	"JOSAM" MODEL NO. '71050'	1
P-8	SERVICE SINK	1/2"	1/2"	3"	2"	"KOHLER" MODEL NO. '6718' FURNISH WITH "KOHLER" FAUCET NO. 'K-8907-RP'	1,10
P-9	HOSE-BIBB	-	3/4"	-	-	"JOSAM" MODEL NO. '71070'	1
P-10	SHOWER	1/2"	1/2"	2"	-	"COMFORT DESIGN" MODEL NO. 'XST-3938-BF-5'. FURNISH WITH HAND HELD SHOWER KIT, PRESSURE BALANCING VALVE.	1,2,10
P-11	EMERGENCY SHOWER/EYE WASH	1 1/4"	1 1/4"	-	2"	"BRADLEY" MODEL NO. '519-31000' FURNISH WITH THERMOSTATIC MIXING VALVE: "LAWLER" NO. '8334'	1,10
P-12	KITCHEN SINK	1/2"	1/2"	1 1/2"	1 1/2"	"ELKAY" MODEL NO. 'DCR-252210', STAINLESS STEEL, 25"X22"X10" DEEP. FURNISH WITH "ELKAY" FAUCET 'LK-2445BH'	1,10
P-13	OIL WATER SEPARATOR	-	-	3"	-	"ROCKFORD" MODEL NO. 'OST-5628'	
P-14	TRENCH DRAIN	-	-	4"	-	"JOSAM" MODEL NO. '76010' 15'-0" TOTAL LENGTH	1
P-15	FLOOR DRAIN	-	-	3"	-	"JOSAM" MODEL NO. '30000E1'	1
P-16	ICE MACHINE	-	1/2"	-	-	"SCOTSMAN" MODEL NO 'SLE300AS-1A'; STAINLESS STEEL FINISH, 115V-1P-60H, 1/4HP COMPRESSOR, 19.7 MCA, 20 MOCF. FURNISHED COMPLETE WITH STORAGE BIN 'SLB-150'	

REMARK:

1. PROVIDE ALL REQUIRED COMPONENTS FOR COMPLETE ROUGH-IN. I.E. SUPPLIES, STOPS, TRAPS, CARRIERS, GRID DRAIN, TAIL PIECES, ETC.
2. FIXTURES SHALL BE ADA COMPLIANT. PROVIDE WITH ADA COMPLIANT ACCESSORIES, MOUNT ADA COMPLIANT, SEE ARCHITECTURAL PLAN FOR ELEVATIONS.
3. PROVIDE 'SKAL-GUARD' INSULATIONS DEVICES ON EXPOSED UNDERCOUNTER PLUMBING.
4. COORDINATE VALVE SENSOR INSTALLATION WITH ADA GRAB BAR. SENSOR SHALL BE LOCATED SO THAT GRAB BAR DOES NOT INTERFERE WITH OPERATION.
5. PROVIDE DEEP SEAL TRAP.
6. PROVIDE APPROVED ELONGATED OPEN FRONT TOILET SEAT.
7. PROVIDE "SLOAN" 'EL-206' TRANSFORMER(S) AS REQUIRED.
8. WATER HEATER 50 GALLON, 4.5KW, 240V-1P-60H, STATE OR APPROVED EQUAL.
9. EWC TO BE ADA COMPLIANT.
10. SEE PLAN AND RISER FOR VENT SIZES.

SYMBOLS & ABBREVIATIONS LIST

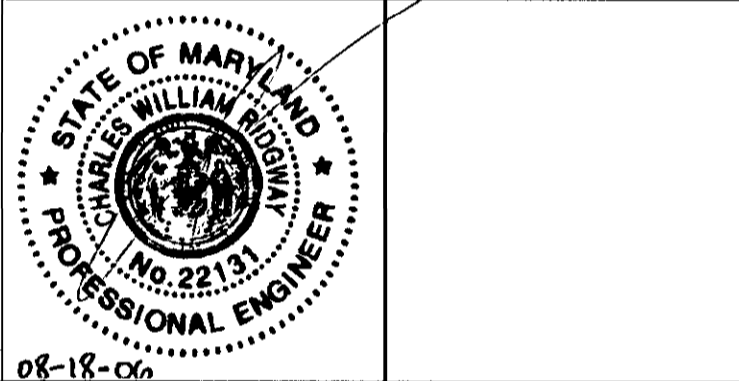
	HOT WATER
	SANITARY, S.
	VENT PIPE, V.
	COLD WATER, CW
	STORM WATER
	FOUNDATION DRAINAGE
	SPRINKLER PIPE
	PUMP DISCHARGE
	CHECK VALVE
	BALANCING VALVE
	UNION
	THERMOMETER
	PRESSURE GAUGE WITH SNUBBER
	GATE VALVE
	STRAINER
	BUTTERFLY VALVE
	3 WAY CONTROL VALVE (MODULATING TYPE)
	2 WAY CONTROL VALVE (MODULATING TYPE)
	SOLENOID VALVE
	FLOW METER FITTING
	PRESSURE REDUCING VALVE
	SPRINKLER HEAD
	FLEXIBLE PIPE CONNECTION
	CLEARWATER DRAIN
	C.F.H. CUBIC FEET PER HOUR
	C.I. CAST IRON
	C.O. CLEAN-OUT
	F.C.O. C.O. FLUSH WITH FINISHED FLOOR
	F.D. FLOOR DRAIN
	R.C. RAIN CONDUCTOR
	R.D.R. ROOF DRAIN
	W.H. WALL HYDRANT
	PLAN NOTE REFERENCE SYMBOL



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REVISIONS

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& RECREATION

PROJECT NUMBER:	0503
PRELIMINARY ISSUE:	09/29/05
CONSTRUCTION ISSUE:	08/18/06
CADD FILE NAME:	

PLUMBING
SCHEDULE

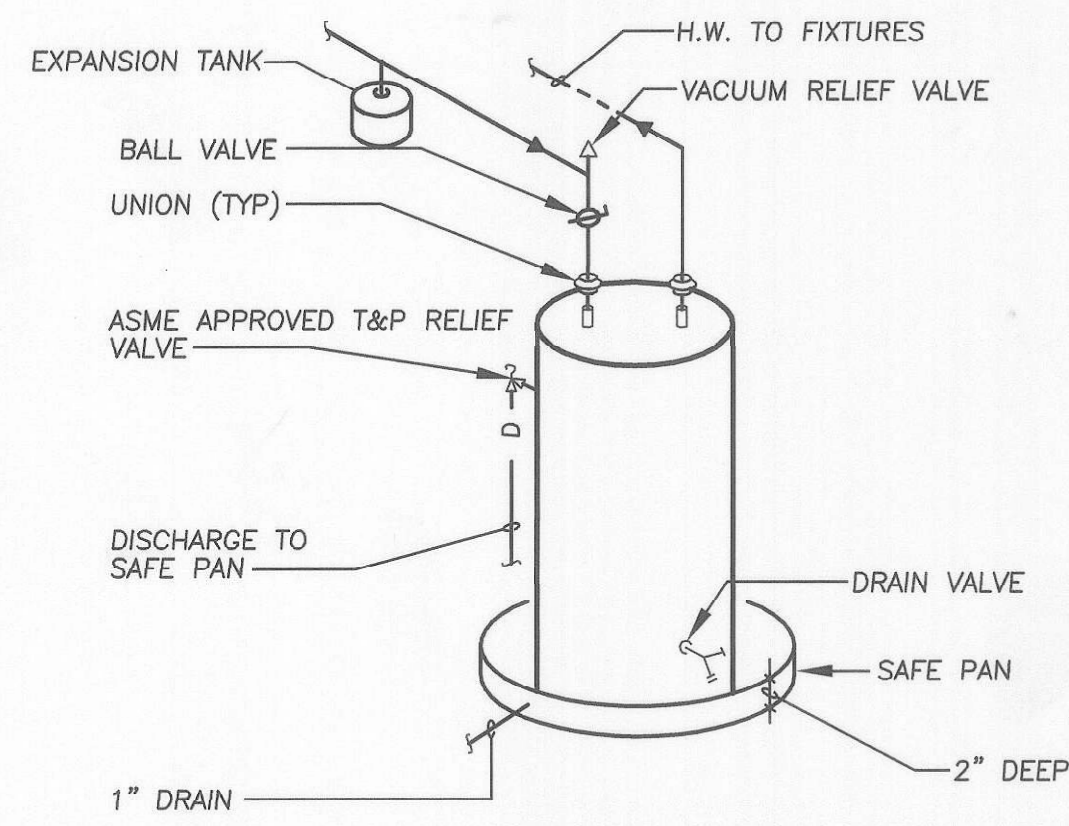
SHEET NUMBER:

P-2

CONSTRUCTION ISSUE 08/18/2006

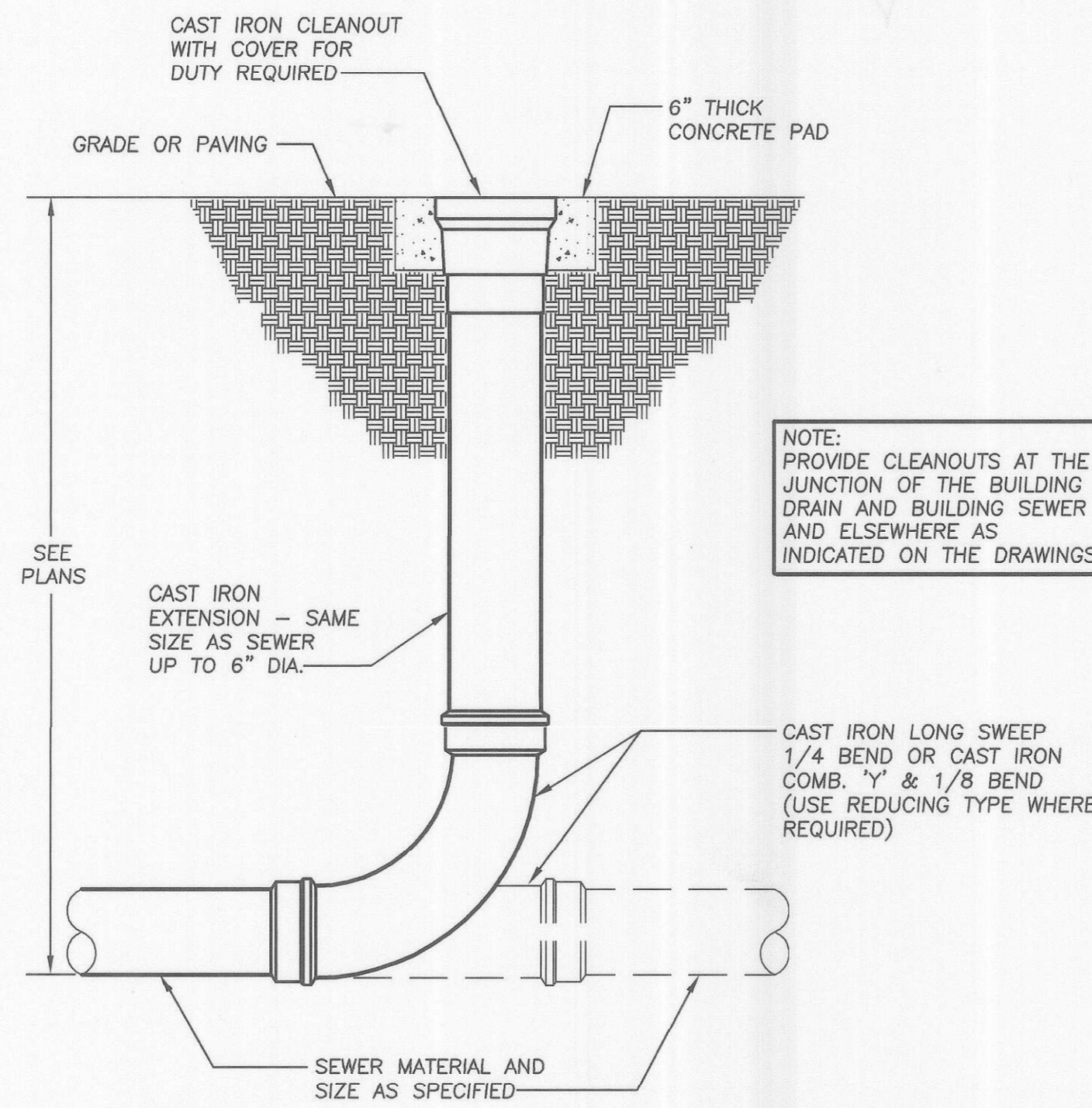
SRBR No: 05089

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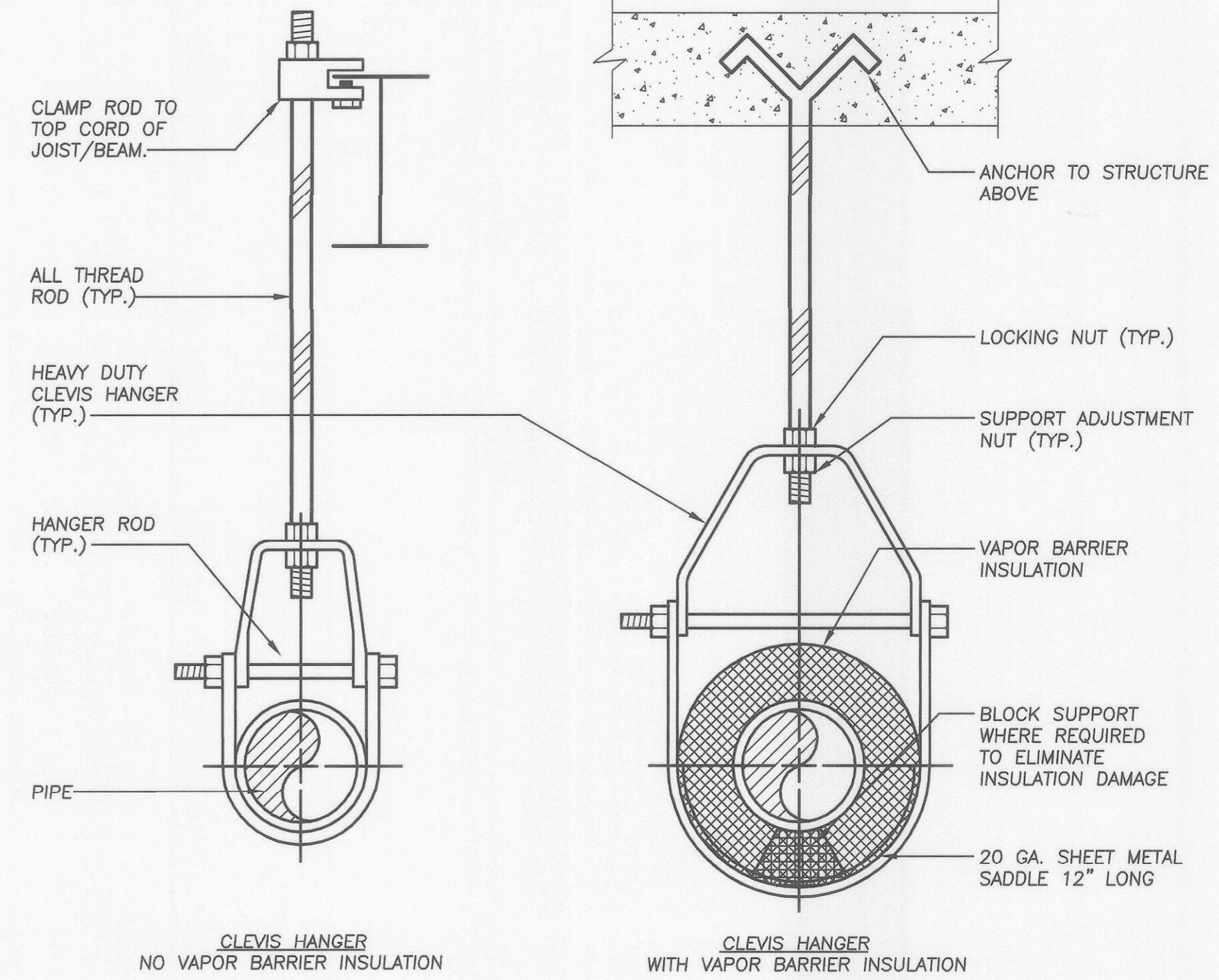
RESIDENTIAL ELECTRIC WATER HEATER PIPING DIAGRAM

NO SCALE



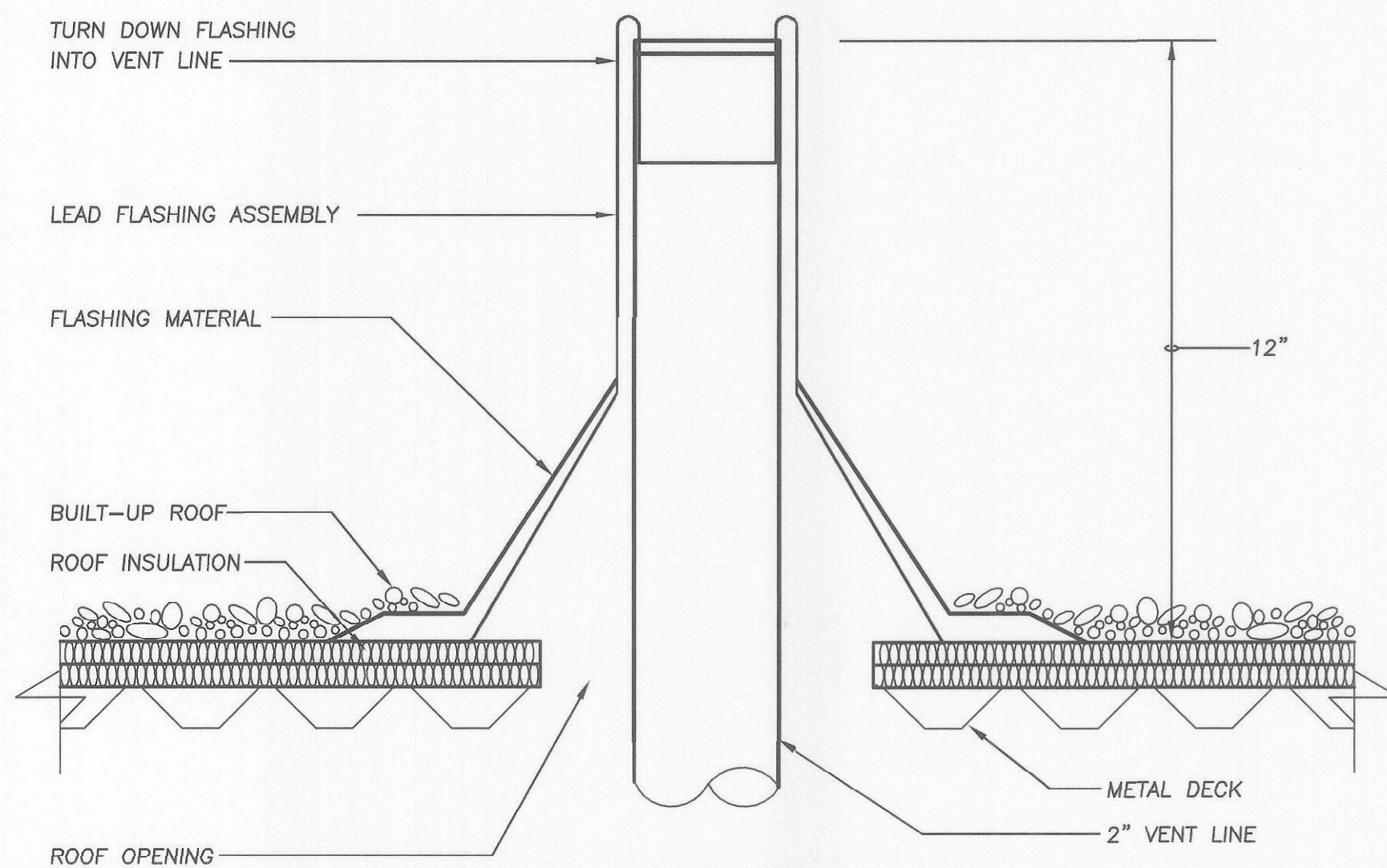
EXTERIOR CLEANOUT DETAIL

NO SCALE



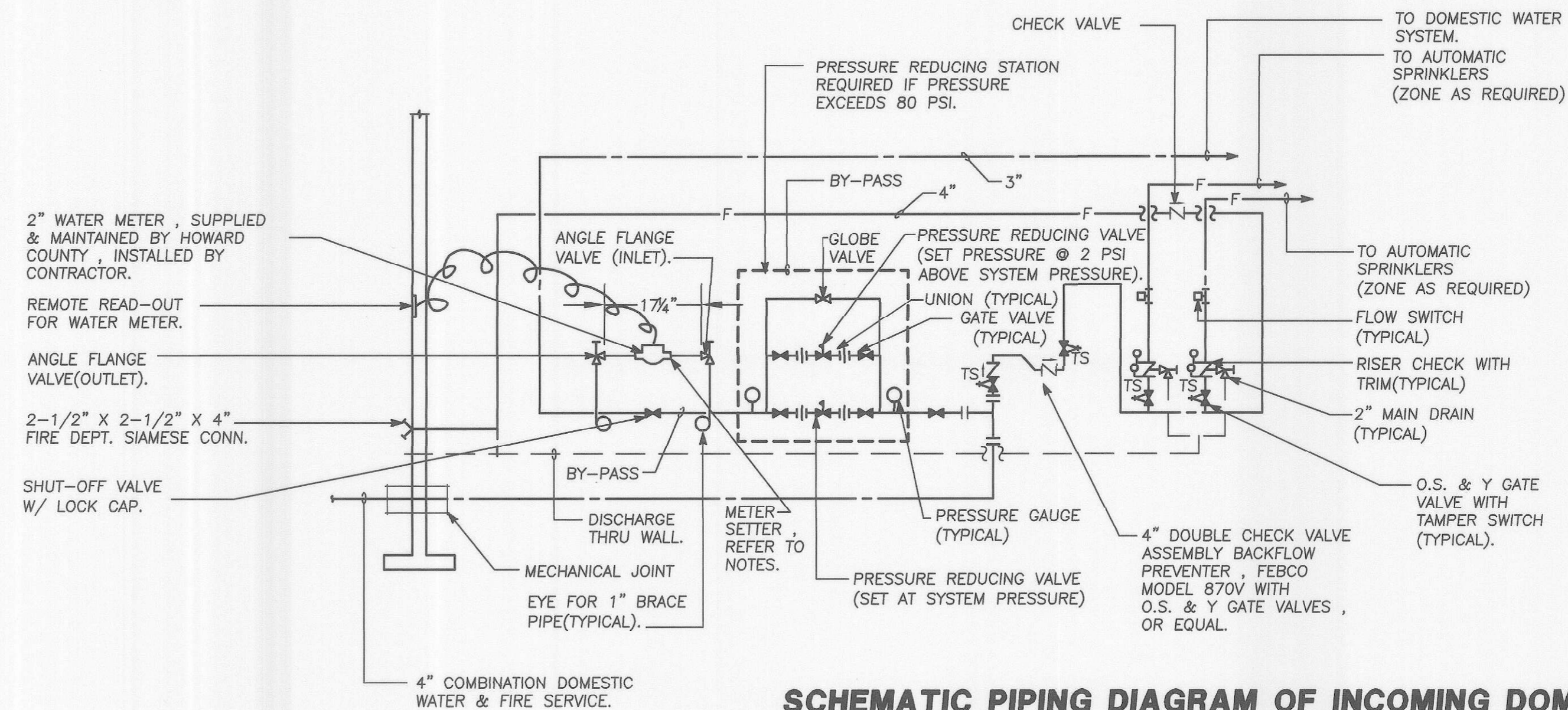
PIPE SUPPORT DETAIL

NO SCALE



VENT PIPE THRU ROOF DETAIL

NO SCALE

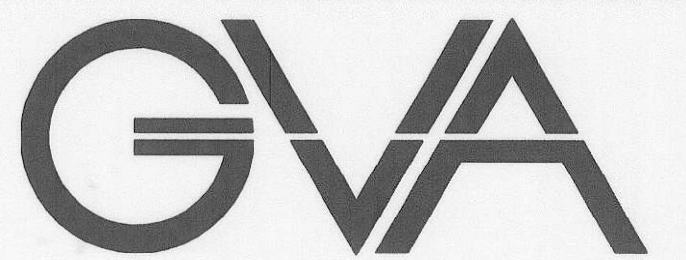


SCHEMATIC PIPING DIAGRAM OF INCOMING DOMESTIC WATER AND FIRE SERVICE

NO SCALE

METER SETTER NOTES:

1. MINIMUM OF 6" REQUIRED BETWEEN WALL AND METER.
2. PROVIDE RIGID WALL AND/OR FLOOR BRACING TO ACCOMMODATE WEIGHT OF UTILIZING EYES FOR BRACKETS.
3. METER SETTER SHALL BE ALL BRASS AND COPPER WITH BY-PASS.
4. METER SETTERS:
A. FORD 2" #VV 77-15 HB-11-77
B. McDONALD 2" # 20-R-7-15-W W-FF-775

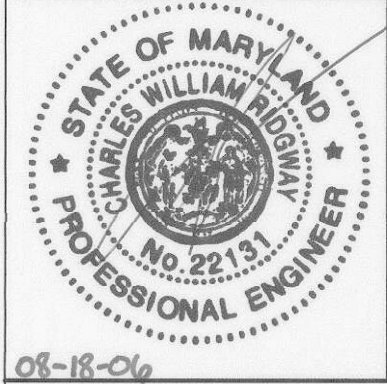


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CONSTRUCTION ISSUE: 08/18/06
CADD FILE NAME:

**PLUMBING
DETAILS**

SHEET NUMBER:

P-3

CONSTRUCTION ISSUE 08/18/2006

SRBR No: 05089

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PLUMBING SPECIFICATIONS

1. GENERAL

- A. The GENERAL AND SPECIAL CONDITIONS shall govern this work as they apply.
- 2. **SCOPE**
 - A. A Plumbing work includes labor, materials and equipment, machinery and services necessary to provide complete plumbing system as hereinafter specified and shown on drawings, including layout of work and coordination of work with that specified elsewhere.
 - B. Work includes, but is not limited to the following:
 1. Plumbing work including fixtures, water, drainage, 2. waste, and piping vent.
 3. All required temperature controls.

3. GENERAL REQUIREMENTS

- A. All work shall be in accordance with the requirements of the applicable Building and Plumbing Code and all other regulatory bodies or agencies having jurisdiction. All systems shall be complete. The Contractor shall do all excavation and back filling necessary to install underground piping included under this section.
- B. Contractor shall obtain and pay for all permits, licenses and inspections required under this section.
- C. The Contractor shall guarantee all materials and workmanship against defects for a period of one year after final acceptance of the work.
- D. Unless noted otherwise, all material shall be new and shall bear the Underwriter's Label where applicable.
- E. All work shall be subject to the requirements of all sections that may interlock with this section in any way.
- F. Electrical work performed under this Section shall comply with the requirements set forth under the "ELECTRICAL WORKS" Section. All motors -hp and over, shall generally be wound for 208-volt, 3-phase, 60-cycle current, unless otherwise noted.
- G. Provide all foundations and supports for equipment furnished under this section. Equipment mounted outside shall be placed on a 5" concrete pad. Rooftop equipment shall be mounted on roof curbs secured and flashed to roof.

4. COORDINATION OF TRADES:

- A. The Subcontractor shall give full cooperation to other trades and shall furnish in writing, with copies to the Architect, any information necessary to permit the work of the trades to be installed in proper sequence and with the least possible interference or delay.
- B. If the Subcontractor install his work without coordinating with other trades, and the installation interferes with their installation, he shall make any changes necessary in this work to correct the condition without extra charge to the owner.
- C. If so directed by the Architect, the Subcontractor shall provide dimensioned fabrication drawings of critical areas, at not additional cost to the owner.

5. MATERIAL LIST AND SHOP DRAWINGS:

- A. Contractor shall submit a complete list of material and equipment for approval by Engineer with 30 days of contract date. The list shall describe type of material, capacities and catalog numbers of equipment, and give such information as necessary for checking equipment for approval.
- B. Contractor shall submit detailed shop drawings of all work and equipment for approval by the Architect and Engineer. Shop drawings shall give all pertinent information, and shall be properly checked and coordinated with other work before submission. No work shall be performed, save at Contractor's own risk, until applicable shop drawings and layout drawings have been approved. All substitute equipment shall be marked "substitute manufacturer".
- C. Any changes in any trade brought about by substitutions of specified equipment shall be done at no charge to the contract price and shall be fully coordinated with all other trades. The Contractor must indicate any and all cost credits associated with using substitute equipment.

6. PLUMBING FIXTURES:

- A. The Contractor shall provide all fixtures and trim necessary to complete the fixture installation. Approved stop valves to match fittings shall be provided on both hot and cold water supplies beneath each fixture. All fixtures requiring hot and cold water shall have cold water faucet at the right side and the hot water faucet at the left side of the fixture. All exposed metal work, including fixture run-outs shall be chromium plated. The color of all fixtures shall be white unless otherwise specified. Where fixture tailpieces and traps are not specified, these shall be provided to suit the fixture.
- B. Insulate all exposed drain and supply piping below handicap accessible fixtures per A.D.A. guidelines.

7. GUARANTEE AND SERVICE:

- A. Contractor shall guarantee all materials and workmanship for a period of one year after date of acceptance, and shall repair or replace, at no additional cost to the Owner, any part thereof which may become defective within guarantee period, ordinary wear and tear excepted. Contractor shall be responsible for and pay for any damages caused by or resulting from defects of his work.
- B. Contractor shall provide five-year warranty on all new compressor units.
- C. Contractor shall provide free service, inspection and adjustment of complete system and all necessary balancing and adjustments for one year beginning from the date of acceptance.

8. INSTRUCTIONS:

- A. Contractor shall provide Owner with two copies of the instructions and maintenance charts, giving detailed information on operation and maintenance.

9. CLEANING OF EQUIPMENT AND WORK AREAS:

- A. Upon completion, all equipment and work area shall be thoroughly cleaned, filters replaced with new, ready for use.

10. PIPING:

- A. Hot and cold piping shall be Type "L" copper, soldered lead-free solder. Isolating fittings shall be used to separate copper and steel piping.
- B. Soil, waste, drain and vent piping - service weight cast iron below grade, galvanized steel, DWV copper or plastic above grade PVC plastic pipe may be used above grade where it meets fire rating requirements and is permitted by local code. No hub cast iron may be used for above ground systems.
- C. Special attention is directed to provide careful attention of water piping to prevent freezing. All such piping must be installed on the room side of insulation, making sure that the building insulation is continuous, fully protecting the entire length of piping.
- D. Provide water hammer arrestors at all quick closing valves to prevent shock and vibration.
- E. Provide all hangers to properly support pipes. Hangers shall be clevis type. Multiple pipes may be hung on trapeze hangers. Provide sheet metal saddles under all insulated pipes.
- F. Fire stopping of piping is required at all fire rated penetrations and shall be of equal or greater value of the penetrated assembly.

11. VALVES:

- A. Valves shall be brass or bronze suitable for 125-lb. working pressure for all services.

12. INSULATION FOR PIPING:

- A. All hot water and cold water mains, runouts and risers shall be insulated with 1" thick Universal Fiberglass pipe covering. All fittings and valves must be insulated with "Zeston Jacket".
- B. "ARMAFLEX", as manufactured by Armstrong, is acceptable. Polyethylene and polyolefin products are not acceptable.

13. FIRE PROTECTION:

- A. The Contractor shall make all necessary modifications to existing fire sprinkler system based on new floor plan. The final system shall be in accordance with NFPA 13 - latest edition, and all local codes having jurisdiction.
- B. All piping shall be concealed wherever possible. Sprinkler heads shall be fast response type and shall be installed in accordance with manufacturer's recommendations and NFPA 13. Sprinkler heads shall be chrome plated, semi-recessed pendant type placed in center of ceiling tiles where possible, and straight-up right (or pendant if required) in areas with no suspended ceilings.
- C. Contractor shall prepare complete shop drawings indicating all new and existing pipe, heads, and valves. Shop drawings shall be drawn to scale. The Contractor shall also prepare detailed hydraulic calculations in accordance with NFPA 13 based on latest water flow data. Data shall not be more than 1-year old. Contractor shall obtain a new flow test if necessary. The shop drawings, calculations, and submitted data on all equipment and materials shall be submitted to the governing Fire Marshal's Office and Engineer for review.
- D. The final system shall be inspected and tested in accordance with the local jurisdiction requirements for final acceptance. The Contractor shall deliver certification of all tests and inspections to Architect.
- E. It shall be the responsibility of the Contractor under this division to provide all devices, valves, electric wiring, etc., which may be required by the regulating agency or by the requirements under this section not provided by other divisions.

14. TRAP PRIMER:

- A. Provide an automatic trap primer valve (one valve per trap, per floor drain) for each trap or floor drain. automatic primer valve shall have integral vacuum breaker, gasketed access cover, all bronze-polished chrome-plate an 1/2" union connection. Primer valve shall be installed per Manufacturer's recommendations. When installed on fixture in finished area, primer valve shall be concealed behind an access door with stainless steel or chrome-plated bronze frame and secured cover (vandal-proof) screws, 8"x8" minimum opening size, nickel bronze cover with polished top (or stainless steel). In lieu of primer valves, priming lines may be connected to stone VBF-72-A1 trap primer connection in flush valve tail piece.

Access Door

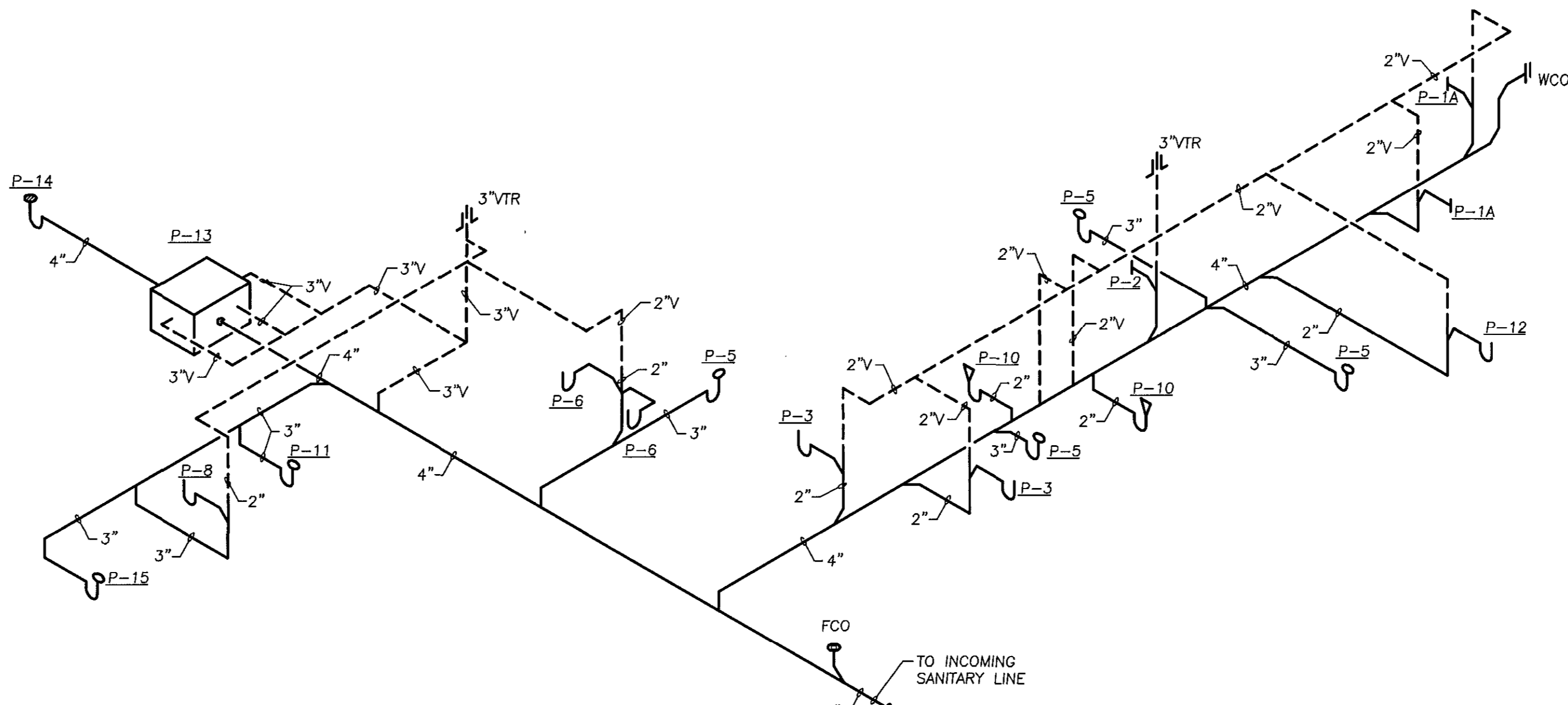
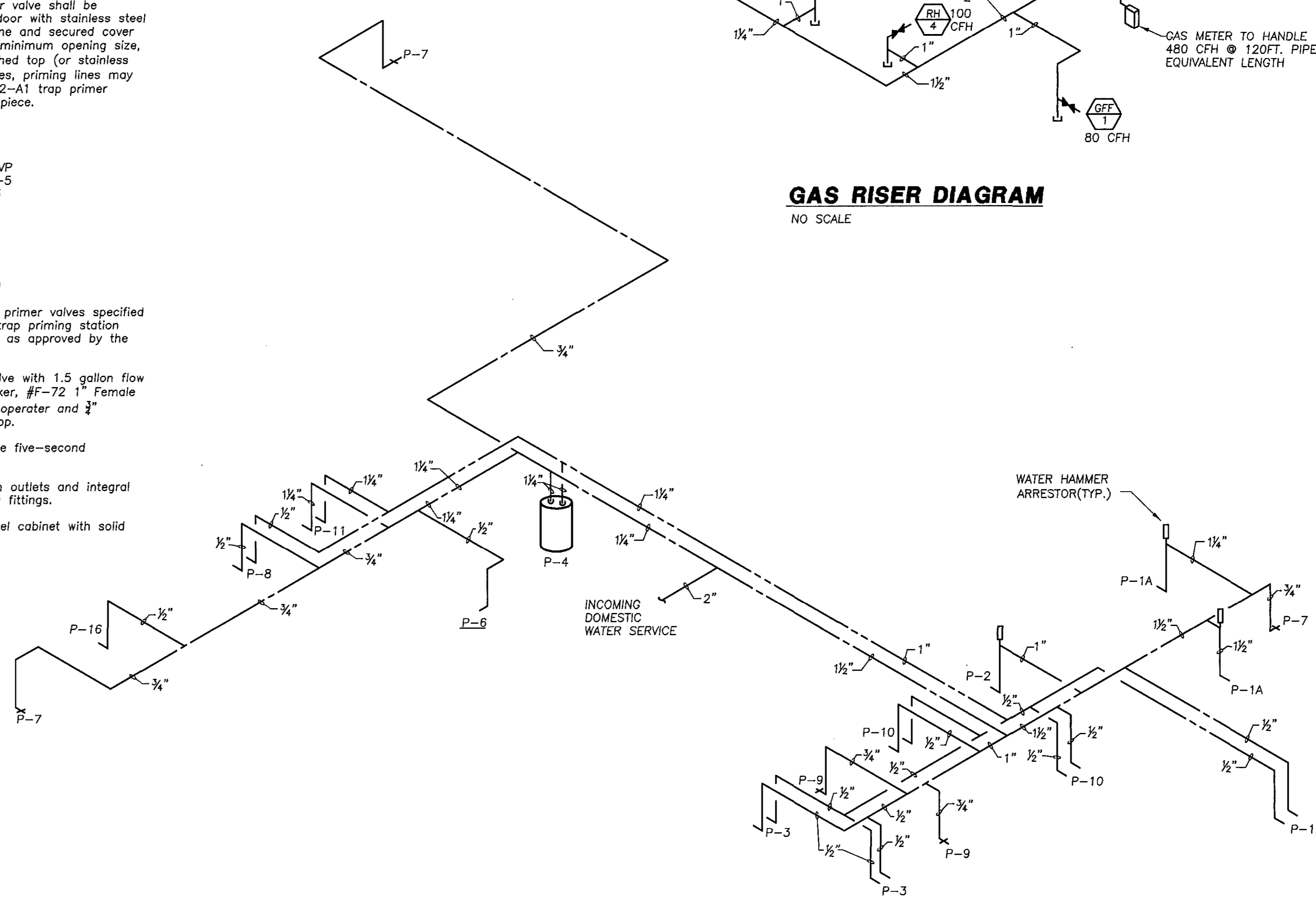
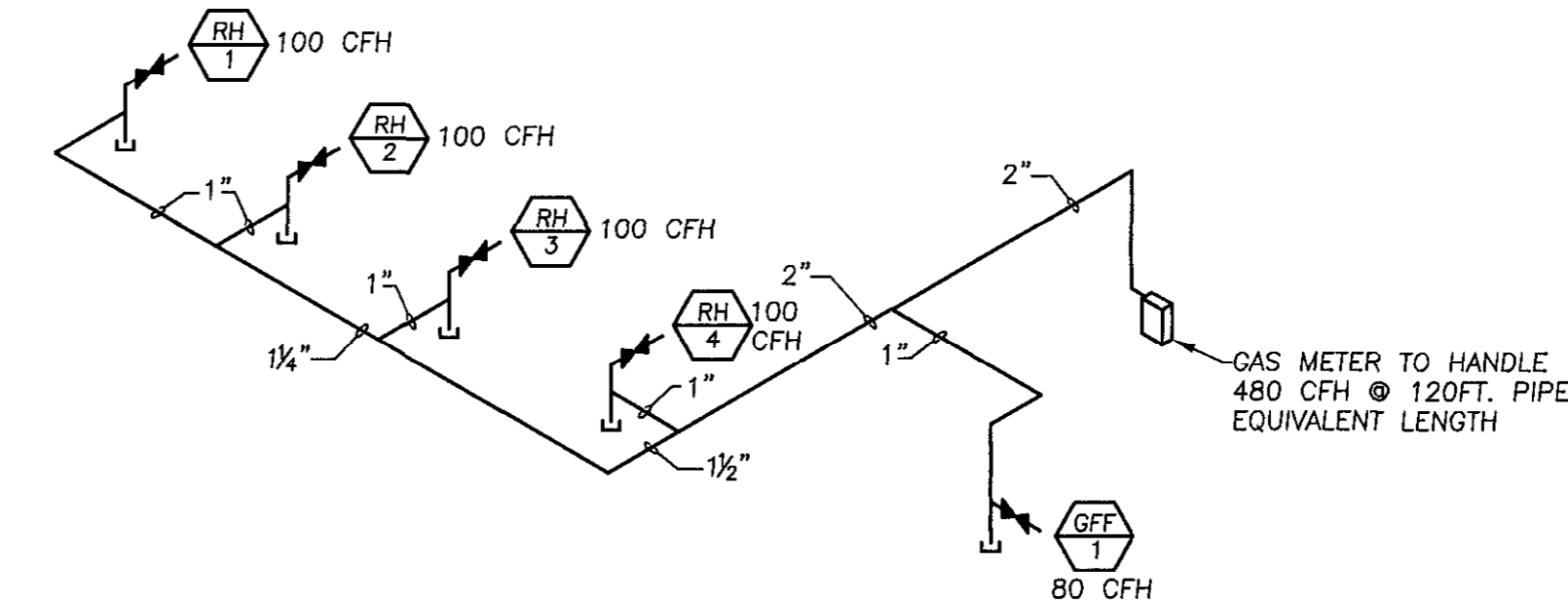
Josam Series No.58650
Zurn Series No. ZANB-1460-VP
Wade Series No. W-8480-59-5
Jay R. Smith Series No. 4735

Trap Seal Primer Valve

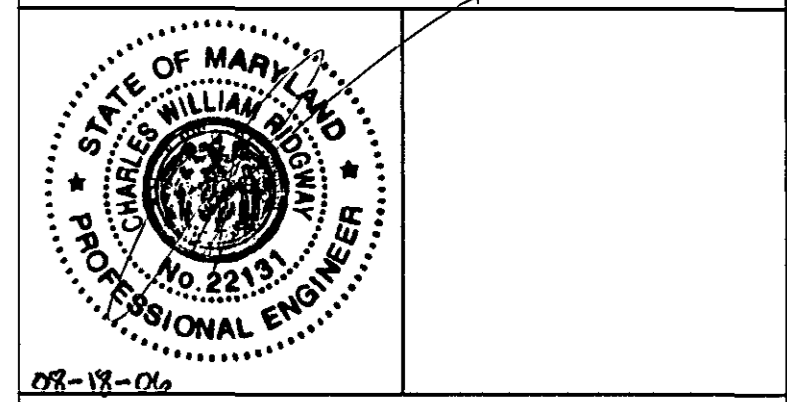
Josam Series No. 88250
Zurn Series No. Z-1022
Wade Series No. W-2400
Jay R. Smith Series No. 2699

- B. Where indicated, or in lieu of primer valves specified above, provide an automatic trap priming station consisting of the following, or as approved by the Engineer.

1. Sloan Royal 186-ES Flush Valve with 1.5 gallon flow ring, #V-500-A vacuum breaker, #F-72 1" Female I.P.S. outlet, electric solenoid operator and 3/4" screwdriver-operated angle stop.
2. Electric timer arranged for one five-second operation every 24-hours.
3. One inch bronze manifold with outlets and integral screwdriver operated balancing fittings.
4. Surface mounted stainless steel cabinet with solid panel door.



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REVISIONS

NO.	DATE	DESCRIPTION

NEW MAINTENANCE FACILITY ROCKBURN PARK FOR HOWARD COUNTY PARKS & RECREATION

PROJECT NUMBER:	0503
PRELIMINARY ISSUE:	09/29/05
CONSTRUCTION ISSUE:	08/18/06
CADD FILE NAME:	

PLUMBING SPECIFICATIONS

SHEET NUMBER:
P-4

CONSTRUCTION ISSUE 08/18/2006
SRBR No: 05089



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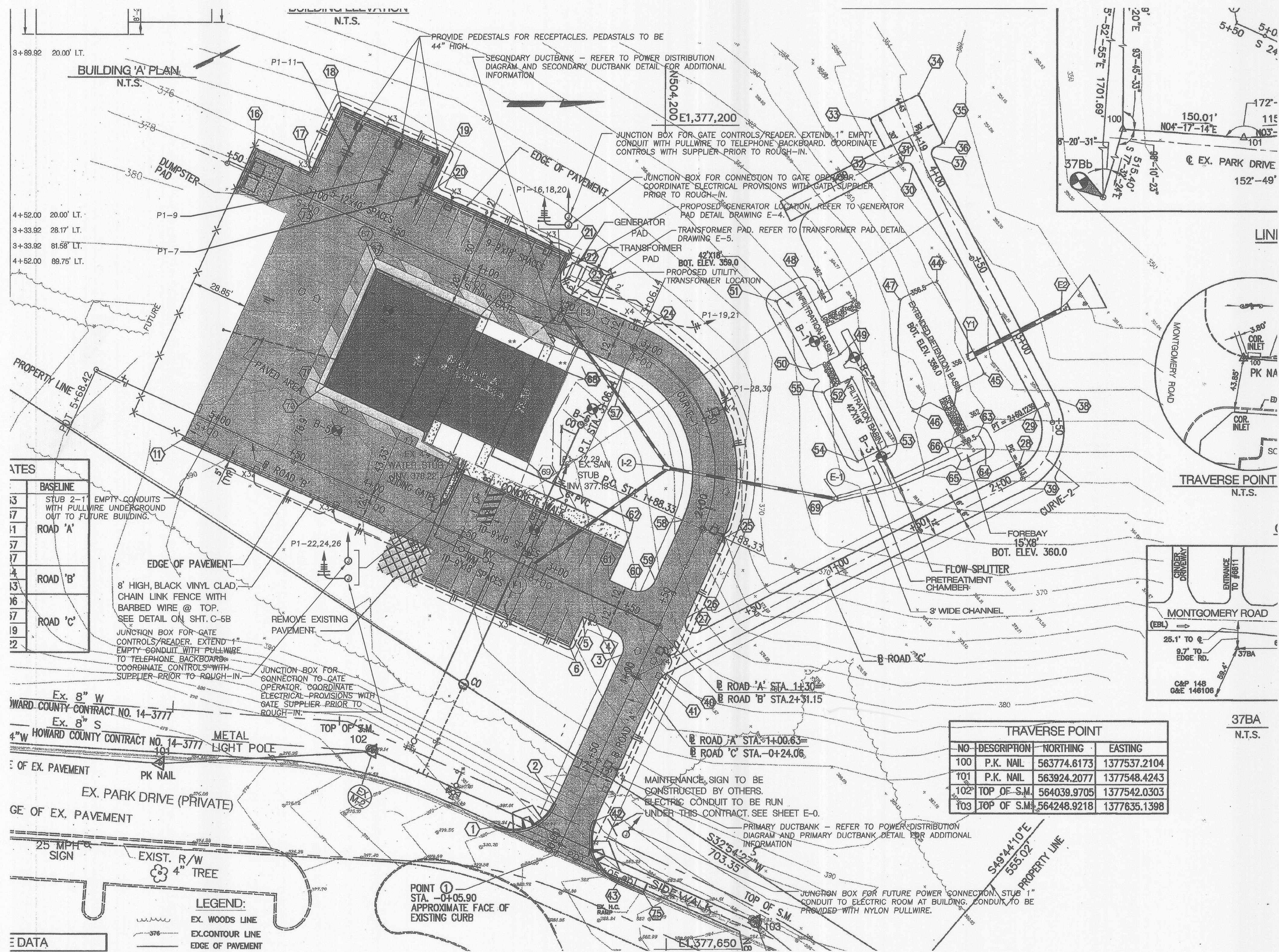
NEW
 MAINTENANCE
 FACILITY
 ROCKBURN PARK
 FOR
 HOWARD COUNTY PARKS
 & RECREATION

PROJECT NUMBER: 0503
 PRELIMINARY ISSUE: 09/29/05
 CONSTRUCTION ISSUE: 08/18/06
 CADD FILE NAME:

SITE PLAN
 ELECTRICAL

SHEET NUMBER:

E-0



SITE PLAN - ELECTRICAL

SCALE: 1" = 30'-0"
 0 10' 20' 30' 60'

CONSTRUCTION ISSUE 08/18/2006

SRBR No: 05089

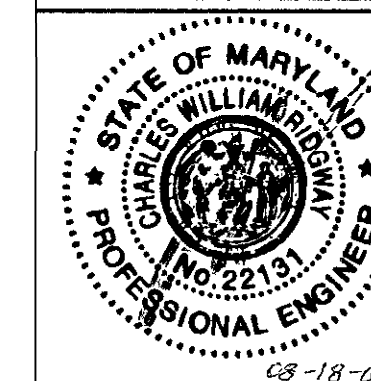


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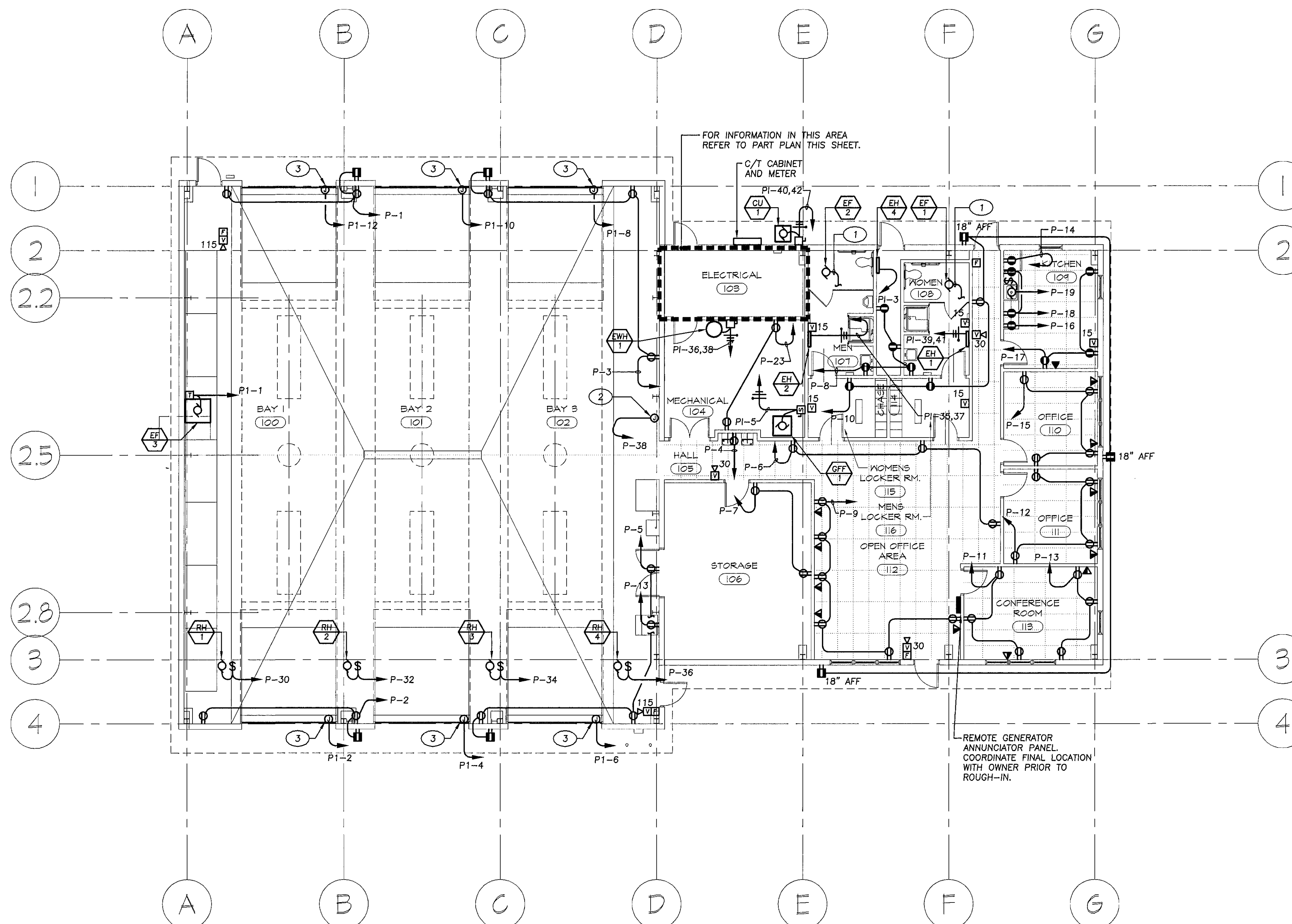
**NEW MAINTENANCE FACILITY
 ROCKBURN PARK
 FOR HOWARD COUNTY PARKS
 & RECREATION**

PROJECT NUMBER: 0503
 PRELIMINARY ISSUE: 09/24/05
 CONSTRUCTION ISSUE: 08/18/06
 CADD FILE NAME:

**FLOOR PLAN
 POWER**

SHEET NUMBER:

E-1

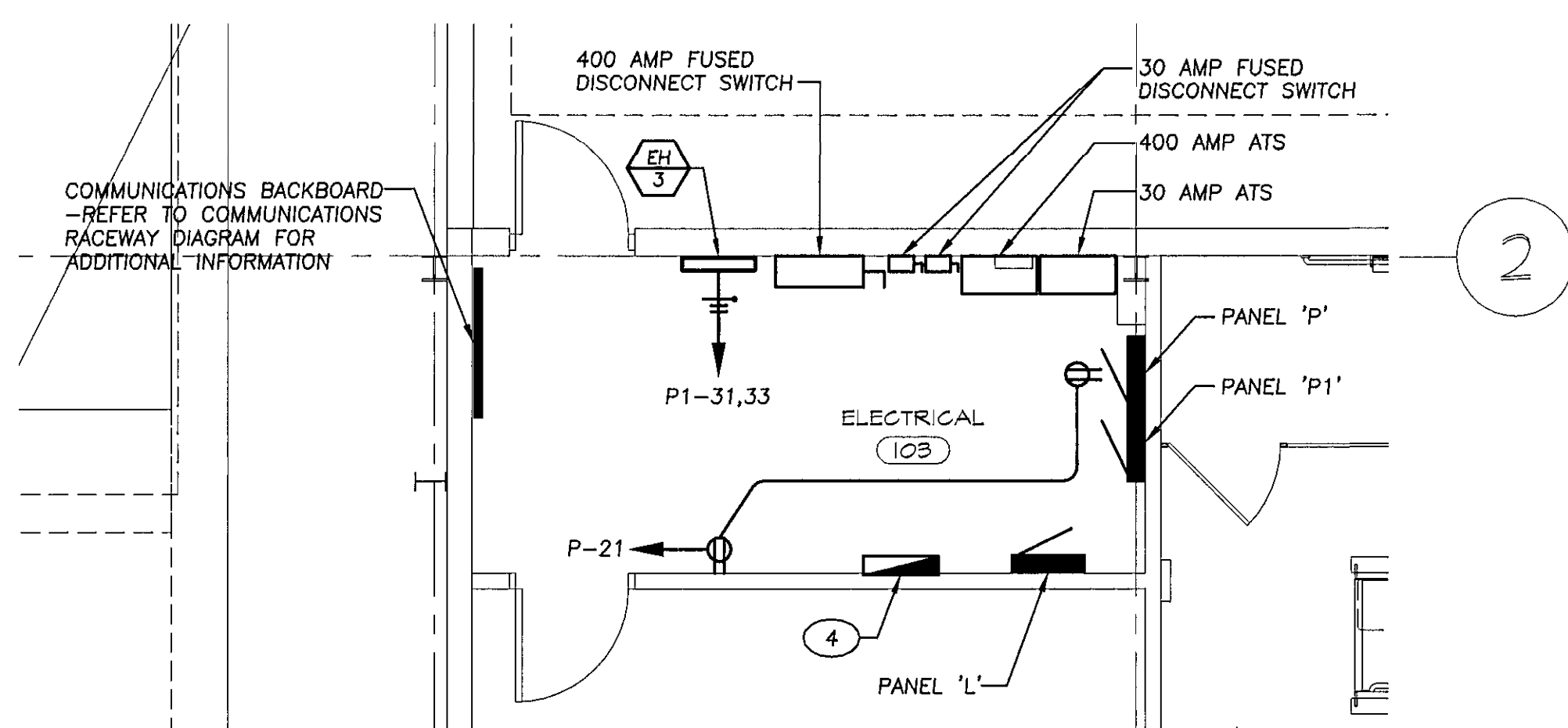


FLOOR PLAN - POWER

SCALE: 1/8" = 1'-0"
 0 2' 4' 8' 16'

PLAN NOTES:

- INTERLOCK EXHAUST FAN WITH LIGHTING CIRCUIT IN ROOM AS REQUIRED.
- J-BOX FOR OIL INTERCEPTOR CONTROLS. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH-IN.
- J-BOX FOR GARAGE DOOR OPENER. CONTRACTOR SHALL MAKE FINAL CONNECTIONS AS REQUIRED.
- FIRE ALARM CONTROL PANEL - REFER TO FIRE ALARM RISER DIAGRAM FOR ADDITIONAL INFORMATION.



ELECTRIC ROOM - PART PLAN

SCALE: 1/4" = 1'-0"
 0 1' 2' 4' 8'

CONSTRUCTION ISSUE 08/18/2006

SRBR No: 05089

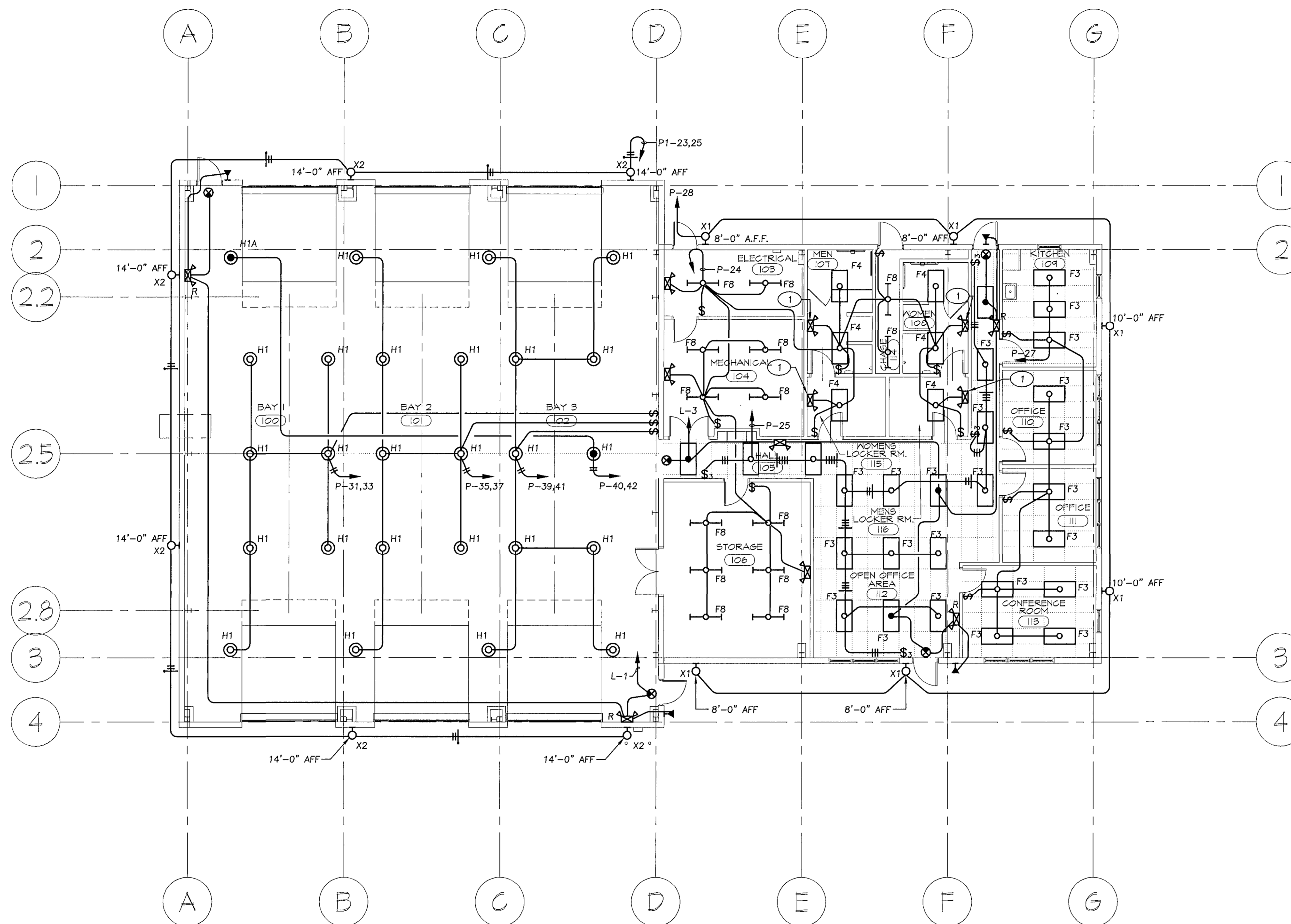
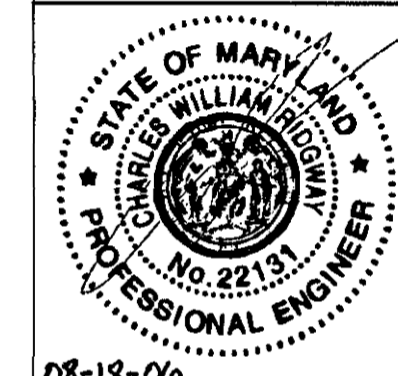


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FLOOR PLAN - LIGHTING

SCALE: 1/8" = 1'-0"
 0 2' 4' 8' 16'

PLAN NOTES:

- 1 CONNECT EMERGENCY LIGHTING UNIT AHEAD OF LOCAL SWITCH.

REVISIONS

NO.	DATE	DESCRIPTION

**NEW
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**FLOOR PLAN
 LIGHTING**

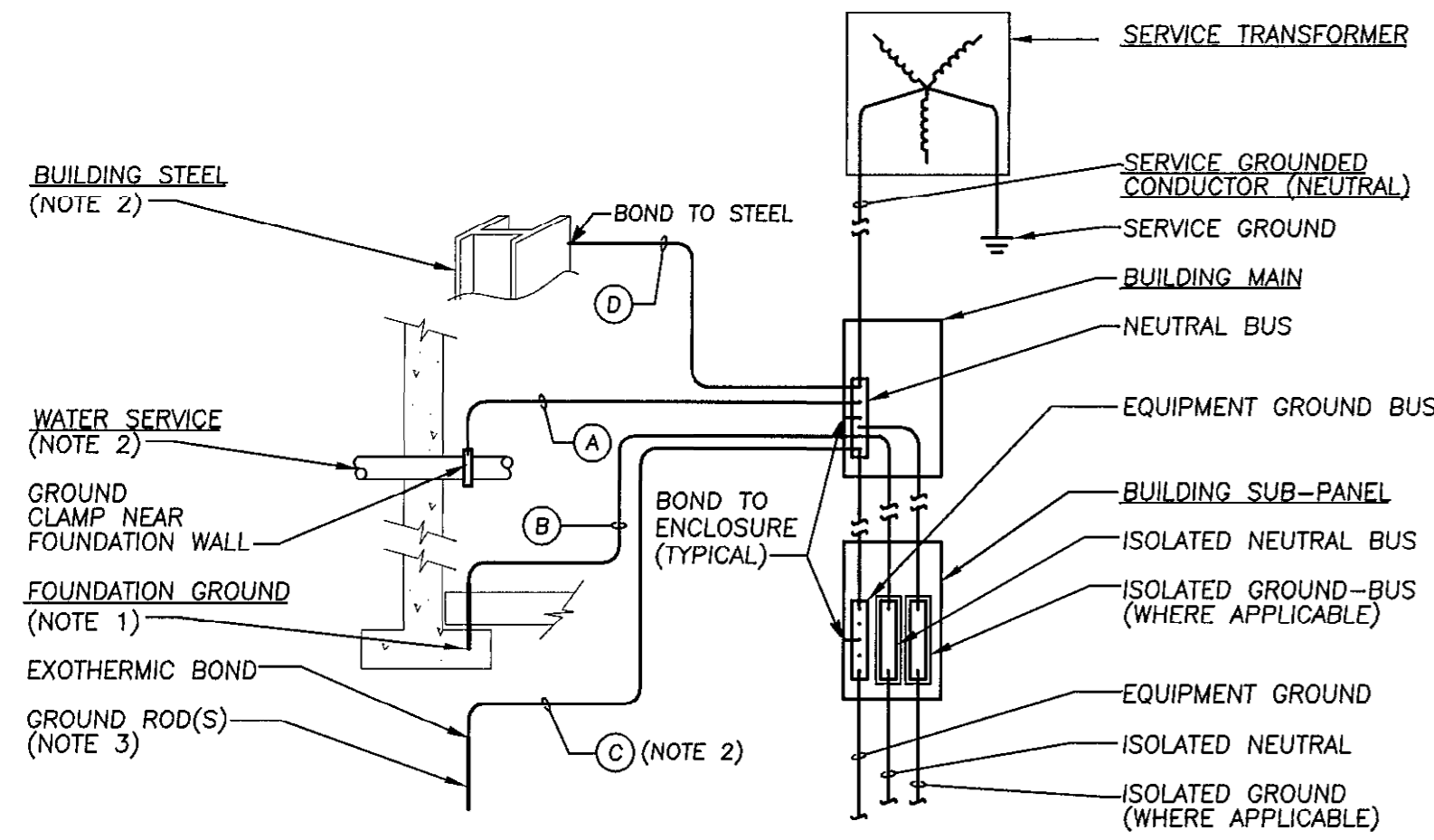
SHEET NUMBER:

E-2

CONSTRUCTION ISSUE 08/18/2006

SRBR No: 05089

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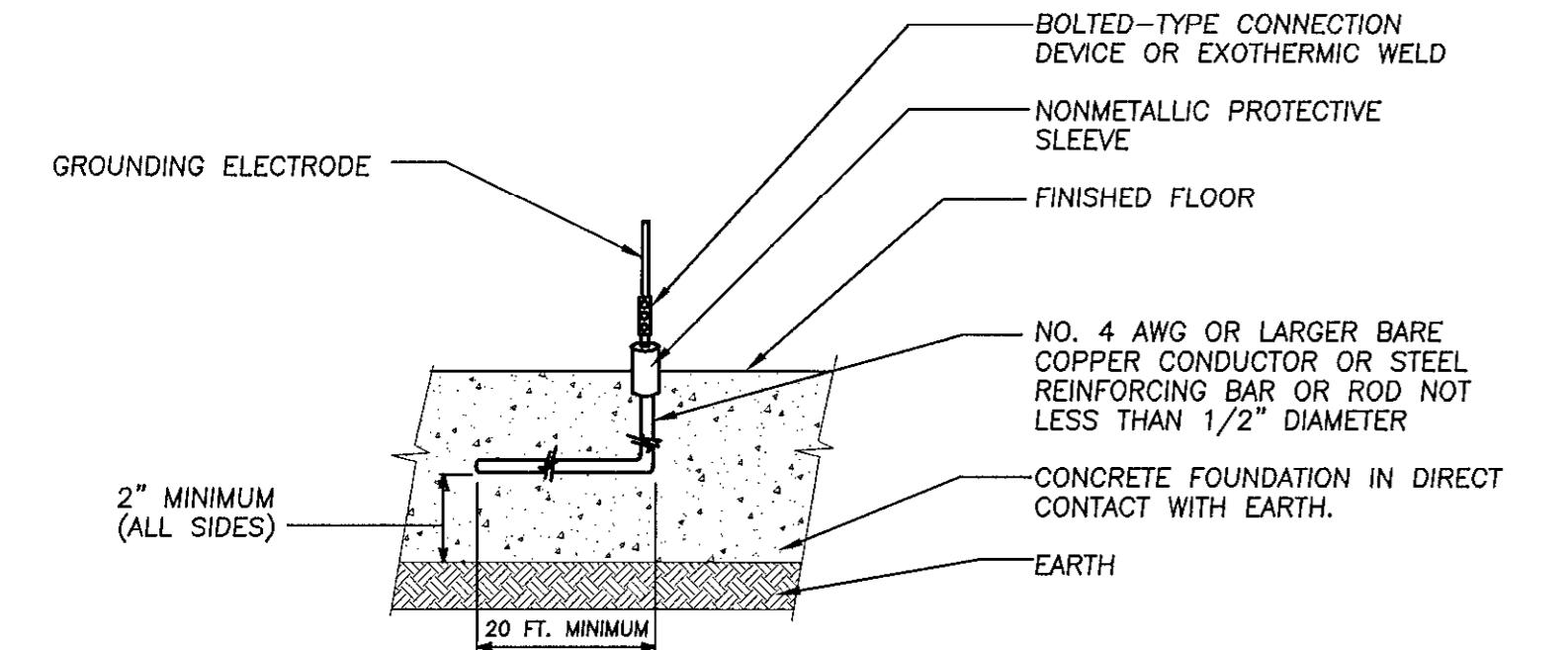


MAIN GROUNDING ELECTRODE DETAIL

- NO SCALE
- GROUNDING NOTES:**
1. CONCRETE ENCASED ELECTRODE (SEE DETAIL).
 2. IF CONTINUOUS METALLIC WATER PIPE OR BUILDING STEEL IS NOT AVAILABLE THEN GROUND ROD ELECTRODE SHALL BE FULL SIZE.
 3. ADDITIONAL RODS SHALL BE ADDED AS NEEDED FOR TOTAL RESISTANCE OF 25 OHMS OR LESS.

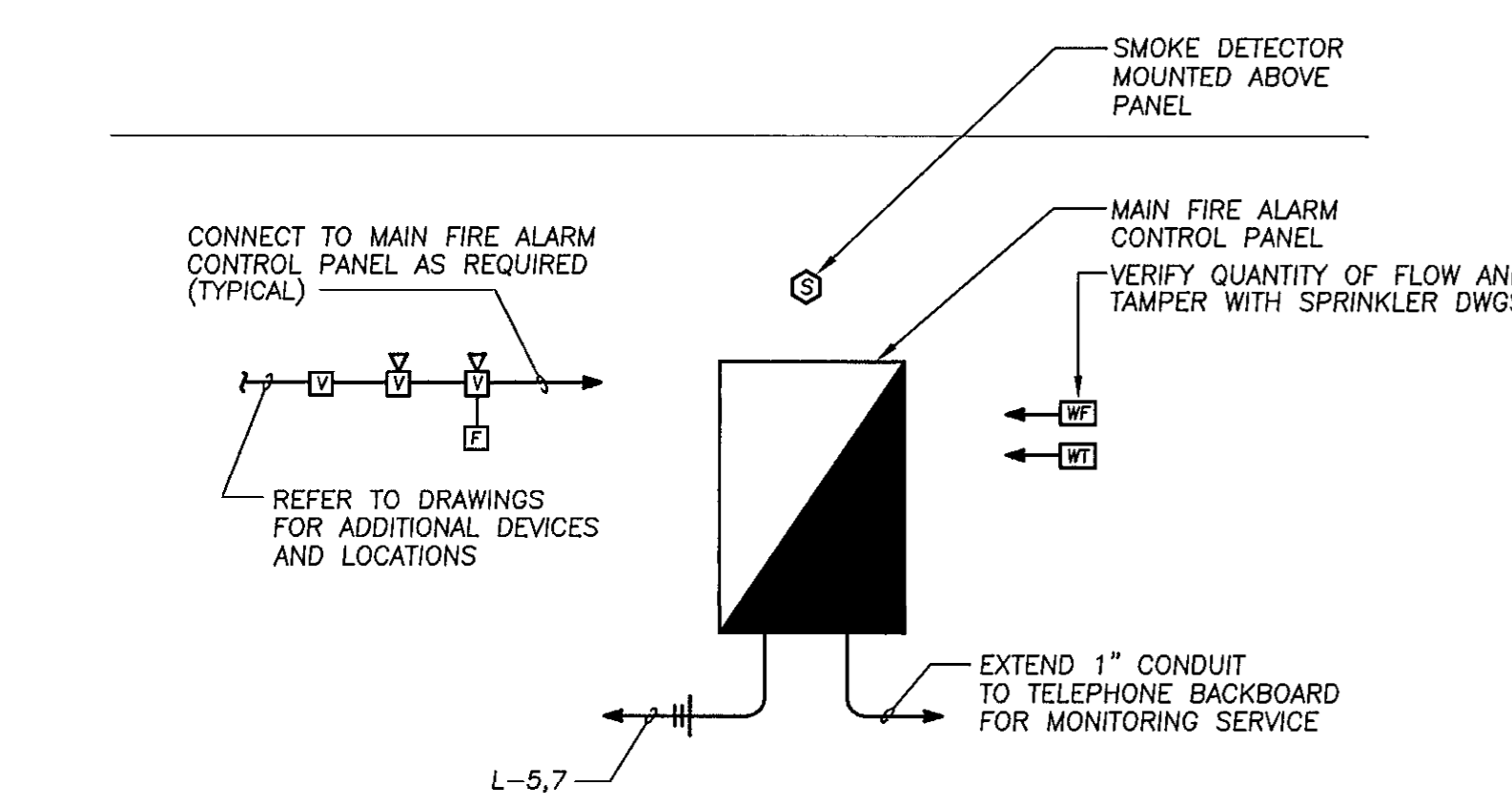
GROUND CONDUCTOR TABLE				
SERVICE SIZE	A	B	C	D
100A	#8	#4	#6	#8
200A	#4	#4	#6	#4
400A	#1/0	#4	#6	#1/0
600A	#2/0	#4	#6	#2/0
OVER 600A	#3/0	#4	#6	#3/0

NOTES:
1. THE ABOVE CHART GIVES MINIMUM COPPER GROUND SIZES.



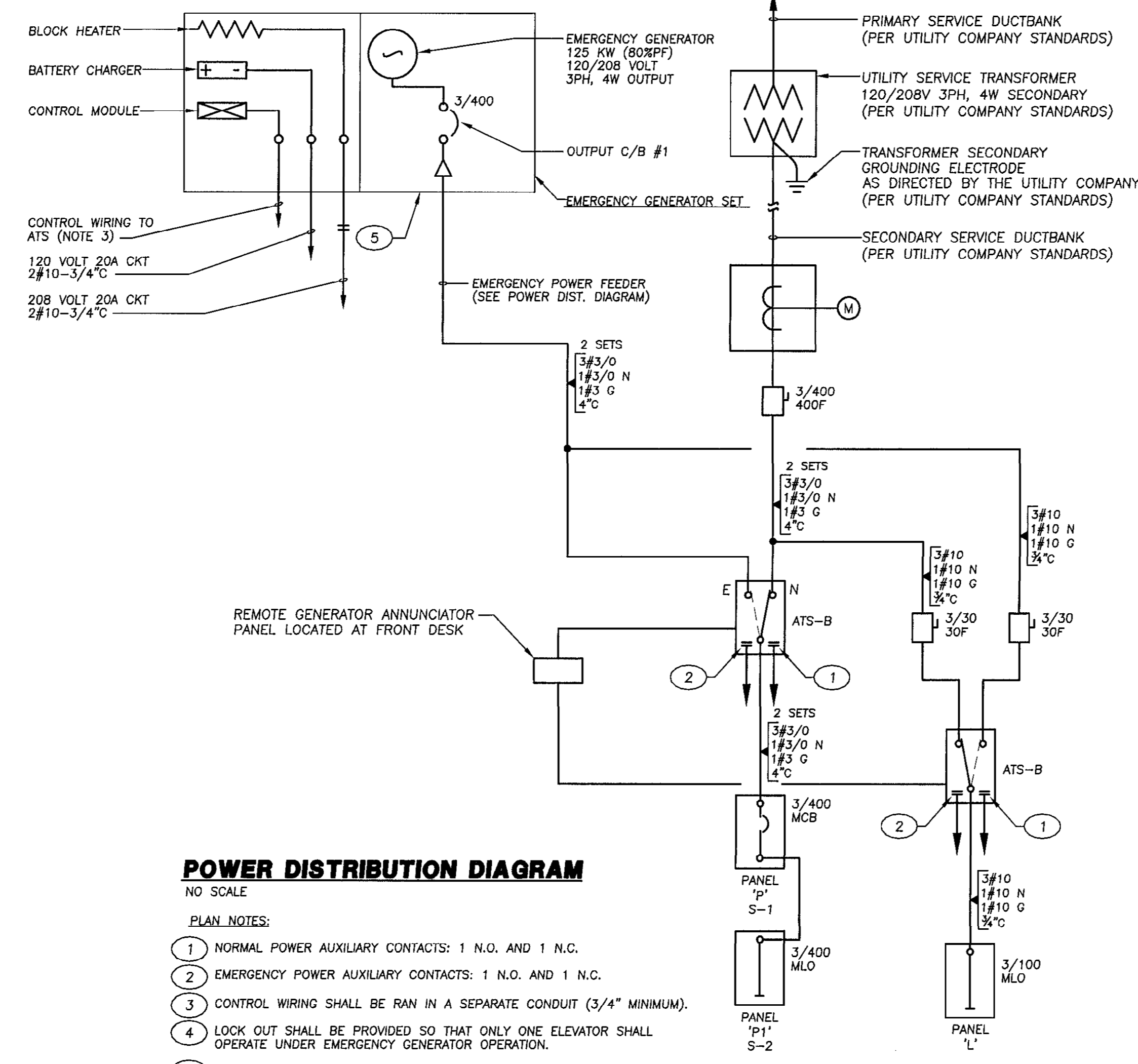
CONCRETE ENCASED ELECTRODE

- NO SCALE
- ELECTRODE NOTES:**
1. CONCRETE ENCASED ELECTRODE SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE ARTICLE 250-50 (2) (C).



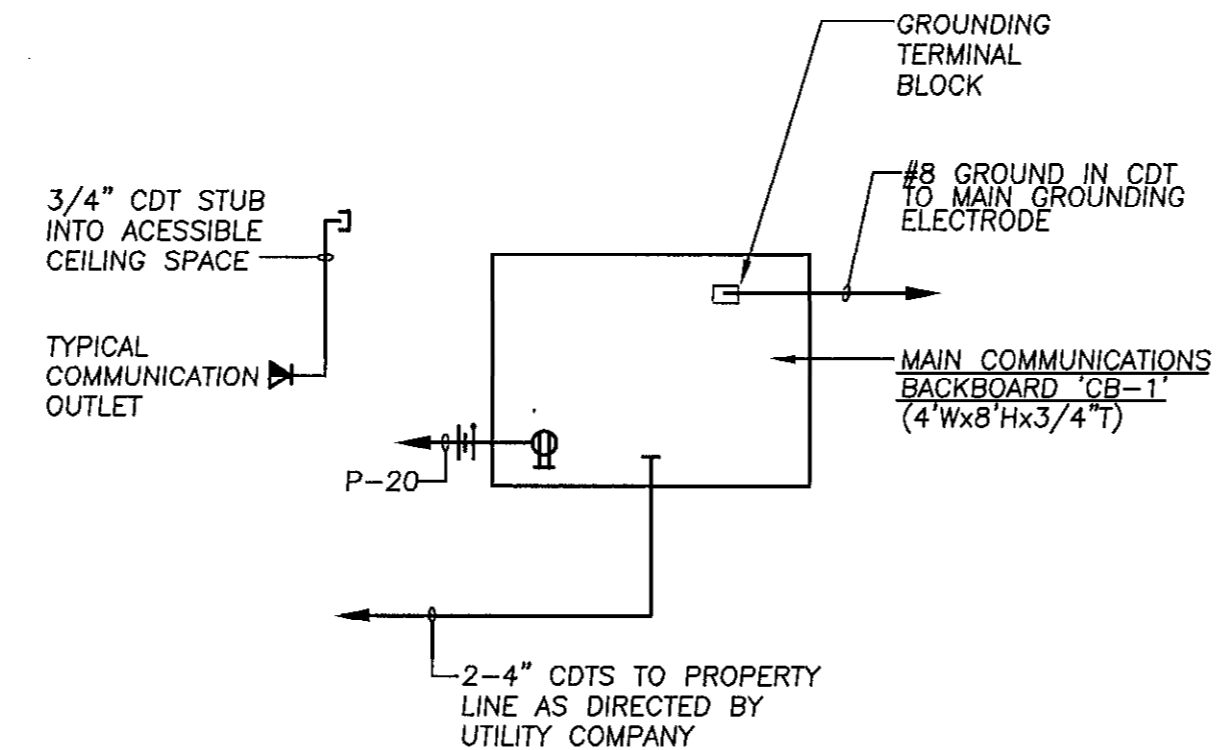
FIRE ALARM RISER DIAGRAM

NO SCALE



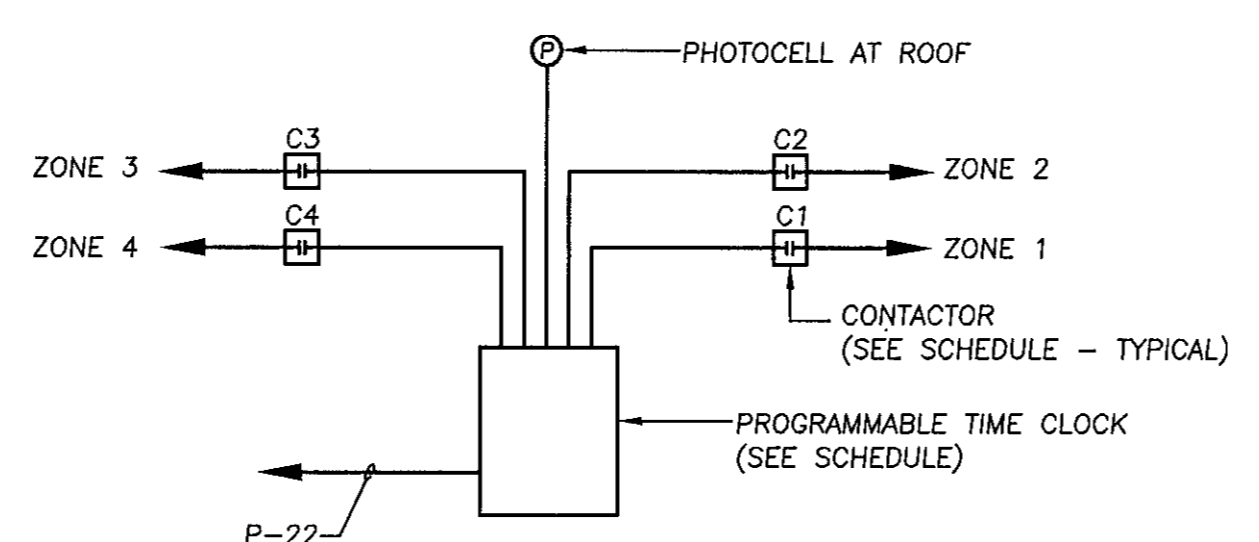
POWER DISTRIBUTION DIAGRAM

- NO SCALE
- PLAN NOTES:**
1. NORMAL POWER AUXILIARY CONTACTS: 1 N.O. AND 1 N.C.
 2. EMERGENCY POWER AUXILIARY CONTACTS: 1 N.O. AND 1 N.C.
 3. CONTROL WIRING SHALL BE RAN IN A SEPARATE CONDUIT (3/4" MINIMUM).
 4. LOCK OUT SHALL BE PROVIDED SO THAT ONLY ONE ELEVATOR SHALL OPERATE UNDER EMERGENCY GENERATOR OPERATION.
 5. PROVIDE BELLY MOUNTED FULL TANK SIZED TO PROVIDE 3/4 CAPACITY FOR 48 HOURS.



COMMUNICATION RACEWAY DIAGRAM

- NO SCALE
- NOTES:**
1. BACKBOARD SHALL BE FIRE TREATED PLYWOOD PAINTED MATTE WHITE.
 2. PROVIDE 3/4" CONDUIT TO FIRE ALARM PANEL, SECURITY PANEL, ATC PANEL & ELEVATOR MACHINE ROOM (WHERE APPLICABLE).



TIME CLOCK / CONTACTOR CONTROL DIAGRAM

NO SCALE

MECHANICAL EQUIPMENT CONNECTION SCHEDULE									
MARK	SERVING	VOLT	PH	LOAD	PROVISIONS AT UNIT			CONTROL	NOTES
					DEVICE	FRAME	FUSE		
RADIANT HEATERS									
RH 1	RADIANT HEATER	120	1	1.4 AMPS	TSD	-	-	-	-
RH 2	RADIANT HEATER	120	1	1.4 AMPS	TSD	-	-	-	-
RH 3	RADIANT HEATER	120	1	1.4 AMPS	TSD	-	-	-	-
RH 4	RADIANT HEATER	120	1	1.4 AMPS	TSD	-	-	-	-
ELECTRIC HEATERS									
EH 1	ELECTRIC HEATER	208	1	2.0 KW	-	-	-	-	-
EH 2	ELECTRIC HEATER	208	1	2.0 KW	-	-	-	-	-
EH 3	ELECTRIC HEATER	208	1	2.0 KW	-	-	-	-	-
EH 4	ELECTRIC HEATER	120	1	0.5 KW	-	-	-	-	-
EXHAUST FANS									
EF 1	EXHAUST FAN	120	1	83W	-	-	-	-	-
EF 2	EXHAUST FAN	120	1	83W	-	-	-	-	-
EF 3	EXHAUST FAN	120	1	1/3 HP	TMS	-	-	-	-
GAS-FIRED FURNACE									
GFF 1	GAS-FIRED FURNACE	120	1	3/4 HP	CFSS	30	20	-	-
AIR-COOLED CONDENSING UNIT									
CU 1	AIR-COOLED CONDENSER	208	1	37.4 MCA	FSS	60	60	-	-
ELECTRIC WATER HEATER									
EW 1	ELECTRIC WATER HEATER	208	1	4.5 KW	FSS	30	30	-	-

NOTES:

1. EQUIPMENT INDICATED ABOVE IS FURNISHED & INSTALLED UNDER ANOTHER DIVISION OF THE WORK. DIVISION 16 TO MAKE ELECTRICAL PROVISIONS AS INDICATED.
2. ALL EXTERIOR SWITCHES AND SAFETY SWITCHES TO BE NEMA 3R TYPE.

EQUIPMENT MARK

RTU - EQUIPMENT TYPE
- EQUIPMENT NUMBER

ATC - AUTOMATIC TEMPERATURE CONTROL (DIVISION 15)
CFS - COMBINATION FUSED STARTER SAFETY SWITCH
FSS - FUSED SAFETY SWITCH
NFSS - NON FUSED SAFETY SWITCH
MTS - MOTOR RATED TOGGLE SWITCH
TMS - THERMAL MANUAL MOTOR STARTER
TSD - TOGGLE SWITCH DISCONNECT
WP - WEATHERPROOF

CONTACTOR CONTROL SCHEDULE							
MARK	LOAD DESCRIPTION	CIRCUITS CONTROLLED	POLES	RATING	CONTACTOR LOCATION	CONTROL	REMARKS
C1	BUILDING LIGHTING			30A			
C2				30A			
C3				30A			
C4				30A			

NOTES:

1. CONTACTORS TO BE MECHANICALLY HELD TYPE ASCO #917 SERIES WITH PULSE MODULE OR APPROVED EQUIVALENT.
2. CONTACTORS TO BE HOUSED IN NEMA 1 WALL MOUNTED CABINET WITH HINGED LOUVERED DOOR. LOCATE CABINET ADJACENT TO LIGHTING PANEL.
3. PROVIDE 120 VOLT COIL POWER.
4. PROVIDE PROGRAMMABLE TIME CLOCK CONTROLLER (SEE DIAGRAM).

PROGRAMMABLE TIME CLOCK SCHEDULE		
ZONE	DESCRIPTION	CONTROL
1	SECURITY LIGHTS	DUSK ON/ DAWN OFF
2	GENERAL EXTERIOR LTG	DUSK ON/ TIME CLOCK OFF
3	EXHAUST FANS	TIME CLOCK ON/OFF
4	SPARE	

NOTES:

1. CLOCK SHALL BE PARAGON #EC74/120D SERIES OR APPROVED EQUIVALENT.
2. THE CLOCK SHALL HAVE THE FOLLOWING FEATURES: MEMORY BATTERY BACK-UP, 4 INDEPENDENT ON/OFF CHANNEL CONTROLS (ZONES), TIME OF DAY/365 DAY CALENDAR W/HOLIDAY PROGRAMMING, AUTOMATIC LEAP YEAR CORRECTION, AND PHOTOCELL INPUT FOR DUSK ON/ DAWN OFF SIGNAL.
3. THE CONTRACTOR SHALL COORDINATE AND SET INITIAL CHANNEL CONTROL SETTINGS AS DIRECTED BY THE OWNER.

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REVISIONS

NO.	DATE	DESCRIPTION

NEW MAINTENANCE FACILITY ROCKBURN PARK FOR HOWARD COUNTY PARKS & RECREATION

PROJECT NUMBER:	0503
PRELIMINARY ISSUE:	09/29/05
CONSTRUCTION ISSUE:	08/18/06
CADD FILE NAME:	

POWER DISTRIBUTION DIAGRAMS

SHEET NUMBER: E-3

ELECTRICAL SYMBOL LIST

SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE - STANDARD, 125 VOLT. 18" A.F.F.
	DUPLEX RECEPTACLE - STANDARD, 125 VOLT. 44" A.F.F.
	DUPLEX RECEPTACLE - GFI PROTECTED, 125 VOLT. 44" A.F.F.
	DUPLEX RECEPTACLE - WP AND GFI PROTECTED, 125 VOLT. 18" A.F.F.
	DUPLEX RECEPTACLE - ISOLATED GROUND, 125 VOLT. 18" A.F.F. ORANGE FINISH.
	QUAD OUTLET; ONE STANDARD 125 VOLT DUPLEX RECEPTACLE & ONE 125 VOLT IG DUPLEX RECEPTACLE; MOUNTING HEIGHT AS NOTED
	QUAD OUTLET; TWO 125 VOLT DUPLEX RECEPTACLES; MOUNTING HEIGHT AS NOTED
	SIMPLEX RECEPTACLE - SPECIAL PURPOSE, VERIFY CONFIGURATION. 18" A.F.F.
	FLOOR BOX (WITH DUPLEX RECEPTACLE SHOWN). DEVICE TYPE SHALL BE AS INDICATED ON THE DRAWINGS. FLUSH IN FLOOR.
	DUPLEX RECEPTACLE, 125 VOLT. FLUSH IN CEILING.
	VOICE OUTLET - ADMINISTRATION LINE. 18" A.F.F.
	DATA OUTLET - ADMINISTRATION LINE. 18" A.F.F.
	COMBINATION VOICE/DATA OUTLET - ADMINISTRATION LINE. 18" A.F.F.
	TELEVISION OUTLET - MATV/CATV SYSTEM. 18" A.F.F.
	JUNCTION OR PULL BOX - CEILING, WALL MOUNTED. SIZE PER N.E.C. UNLESS NOTED OTHERWISE.
	MULTI-OUTLET RACEWAY - SIMPLEX OUTLETS 12" ON CENTER UNLESS NOTED OTHERWISE. MOUNT ABOVE COUNTER.
	SWITCH - SINGLE POLE, DOUBLE POLE, THREE WAY, FOUR WAY, SUPERSCRIPIT DENOTES OUTLETS CONTROLLED. 44" A.F.F.
	SWITCH - DIMMER CONTROL. SUPERSCRIPIT INDICATES WATTAGE, '6' = 600 WATTS, '12' = 1200 WATTS, '15' = 1500 WATTS, '20' = 2000 WATTS (MINIMUM RATED WATTAGE FOR CONFIGURATION IF GANGED). PROVIDE DEDICATED NEUTRAL. 44" A.F.F.
	SWITCH - KEY OPERATED, PILOT LIGHT, MOTOR RATED
	CONTACTOR: SEE PLANS FOR SPECIFICATIONS
	MANUAL THERMAL MOTOR STARTER. SIZE OVERLOAD AS REQUIRED.
	TIME CLOCK
	MOTOR CONNECTION. SEE SCHEDULE FOR HP RATING UNLESS NOTED OTHERWISE.
	CONTROL EQUIPMENT
	PHOTOCELL - CIRCUIT CONTROLLED AS INDICATED ON PLANS.
	WIRING UP
	WIRING DOWN
	WIRING CONCEALED ABOVE CEILING OR IN WALL (2 CONDUCTORS + EQUIPMENT GROUND MINIMUM UNLESS NOTED OTHERWISE).
	WIRING BELOW GRADE OR BELOW FINISHED SLAB (0" C. - 2#10 + 1#10 EQUIPMENT GROUND MINIMUM UNLESS NOTED OTHERWISE).
	WIRING: NEUTRAL (OVERSIZED TICK), 2 PHASE CONDUCTORS
	WIRING: INSULATED EQUIPMENT GROUND CONDUCTOR
	WIRING: INSULATED ISOLATED GROUND (I.G.) CONDUCTOR
	WIRING: INSULATED REDUNDANT GROUND (PER HEALTH FACILITY REQUIREMENTS)
	HOMERUN TO PANEL (SOURCE PANEL & CIRCUIT NUMBERS, AS INDICATED)
	FLEXIBLE WIRING: CONDUCTORS TO MATCH SUPPLY CIRCUIT
	ELECTRICAL PANEL: 120/208 VOLT - SURFACE, RECESSED MOUNTED
	PLAN NOTE - REFER TO NOTES ON DRAWING.
	EQUIPMENT CONNECTION NOTE - SEE SCHEDULE.
	SYMBOL INDICATES 24 HOUR LIGHT (NIGHT LIGHT)

POWER DISTRIBUTION SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	INDICATES 3 POLE/PHASE, 225A TRIP (FRAME RATING FOR SWITCH)		FSS
	INDICATES 1 POLE/PHASE, 100A TRIP (FRAME RATING FOR SWITCH)		NFSS
	INDICATES 60A FUSE RATING		CFSS
	FUSED SWITCH		METER
	CIRCUIT BREAKER		GROUNDING ELECTRODE
	MOTOR CONNECTION - 3 PHASE		STEP DOWN TRANSFORMER
	MOTOR CONNECTION - 1 PHASE		

FEEDER LEGEND

DESIGNATION	DESCRIPTION	DESIGNATION	DESCRIPTION
X SETS	QTY. OF PARALLEL SETS (1 SET IF BLANK)		PHANTOM DEVICES TO BE REMOVED
3#xxx	WIRE SIZE IN AWG.	(N)	NEW EQUIPMENT
1#xxx N	NEUTRAL SIZE	(E)	EXISTING EQUIPMENT TO REMAIN
1#xx G	EQUIPMENT GROUND	(R)	EXISTING EQUIPMENT RELOCATED
1#xx IG	ISOLATED GROUND	(X)	EXISTING EQUIPMENT TO BE REMOVED
x" C	CONDUIT SIZE		

ABBREVIATIONS

DESIGNATION	DESCRIPTION	NOTE:	DESCRIPTION
A.F.F.	ABOVE FINISHED FLOOR (TO CENTERLINE UNO)		MLO MAIN LUGS ONLY
C	CONDUIT		NFSS NON-FUSED SAFETY SWITCH
C/B	CIRCUIT BREAKER		NL NIGHTLIGHT (24 HOUR OPERATION)
CFSS	COMBINATION FUSED STARTER SWITCH		S-1 SECTION #1 OF 2 SECTION PANEL (PROVIDE PANEL WITH FEED THRU LUGS)
ECB	ENCLOSED CIRCUIT BREAKER		S-2 SECTION #2 OF 2 SECTION PANEL (COMMON COVER FOR SECTION 1 & 2)
EWC	ELECTRIC WATER COOLER (VERIFY MTD.)		SHUNT SHUNT TRIP CIRCUIT BREAKER
G	EQUIPMENT GROUND		SP SURGE SUPPRESSOR
GFP	GROUND FAULT INTERRUPTER C/B		SN SUPER NEUTRAL
GFI	GROUND FAULT CIRCUIT INTERRUPTER		TG TRANSFORMER GROUND
FSS	FUSED SAFETY SWITCH		UNO UNLESS NOTED OTHERWISE
IG	ISOLATED GROUND		WP WEATHERPROOF (NEMA 3R UNO)
MCB	MAIN CIRCUIT BREAKER		

INTERIOR LIGHTING FIXTURE SCHEDULE

MARK	FIXTURE DESCRIPTION			REMARKS	VOLT	MOUNTING	LAMPS		MANUFACTURER	TYPICAL LOCATION
	ILLUM	TYPE	DIFFUSER				QTY	TYPE		
F3	FLUOR.	2' x 4'	.125 ACRYLIC PRISMATIC		120	GRID	3	F32 T8	DAYBRITE #2TG SERIES	
F4	FLUOR.	2' x 4'	.125 ACRYLIC PRISMATIC		120	RECESSED FLANGE	3	F32 T8	DAYBRITE #2TF SERIES	
F8	FLUOR.	4' STRIP		WIREGUARD	120	SURFACE/SUSPENDED	2	F32 T8	DAYBRITE #T SERIES	UTILITY AREAS
H1	HID	HIGH BAY	ACRYLIC REFRACTOR	FIXTURE PROVIDED WITH QUARTZ RESTRIKE	208	SUSPENDED	1	175W MH	GE #MGA-175MH-2-Q SERIES	

INTERIOR LIGHTING NOTES:

1. ALL T8 & COMPACT FLUORESCENT FIXTURES TO BE FURNISHED WITH ELECTRONIC BALLAST. PROVIDE MULTI-BALLASTS AND CONNECT FOR DUAL LEVEL LIGHTING WHERE INDICATED ON THE PLANS.
2. ALL T8 & COMPACT FLUORESCENT LAMPS TO BE 4100 K, 80 COLOR RENDERING INDEX + U.N.O.
3. FIXTURE SHALL BE CAPABLE OF OPERATING 26 WATT OR 32 WATT LAMPS.
4. PROVIDE QUANTITY OF 3' AND 4' STRIP LIGHTS REQUIRED FOR LENGTHS INDICATED ON THE PLANS.
5. PROVIDE TRACK IN LENGTHS INDICATED ON PLANS, ALONG WITH ALL REQUIRED MOUNTING AND CONNECTING HARDWARE. TRACK IS SUSPENDED WHERE INDICATED ON PLANS.

EMERGENCY LIGHTING FIXTURE SCHEDULE

MARK	DESIG. (NOTE 3)	FIXTURE DESCRIPTION			REMARKS	VOLT	MOUNTING	LAMPS		MANUFACTURER	TYPICAL LOCATION
		ILLUM	TYPE	SOURCE				QTY	TYPE		
EX1	LED	EXIT	INTEGRAL BATTERY		HIGH IMPACT THERMO WHITE PLASTIC HOUSING, SINGLE FACE	120	UNIVERSAL	-	FURNISHED W/ FIXTURE	EMERGI-LITE #EC SERIES	EXITS
EB1	INCAND.	EMERG.	INTEGRAL BATTERY		TWIN HEAD, NO REMOTE	120	WALL	2	FURNISHED W/ FIXTURE	EMERGI-LITE #EC SERIES (12V, 12W HEADS)	
EB2	INCAND.	EMERG.	INTEGRAL BATTERY		TWIN HEAD, WITH REMOTE CAPABILITY	120	WALL	2	FURNISHED W/ FIXTURE	EMERGI-LITE #EC SERIES (12V, 12W HEADS)	
ER1	EMERG.	REMOTE HEAD	ADJUSTABLE EXTERIOR			120	UNIVERSAL	1	FURNISHED W/ FIXTURE	EMERGI-LITE #EF SERIES (12V, 12W HEADS)	

EMERGENCY LIGHTING NOTES:

1. EXIT SIGNS SHALL HAVE DIRECTIONAL ARROWS AS INDICATED ON THE PLANS.
2. VERIFY COLOR AND CONFIGURATION OF EXIT SIGN LETTERS WITH LOCAL CODES.
3. EXIT SIGNS AND EMERGENCY BATTERY PACKS ARE INDICATED BY SYMBOL ON THE PLANS IN LIEU OF LETTER DESIGNATION.
4. EXIT SIGNS AND EMERGENCY BATTERY PACKS SHALL BE CONNECTED AHEAD OF LOCAL SWITCH.

EXTERIOR LIGHTING FIXTURE SCHEDULE

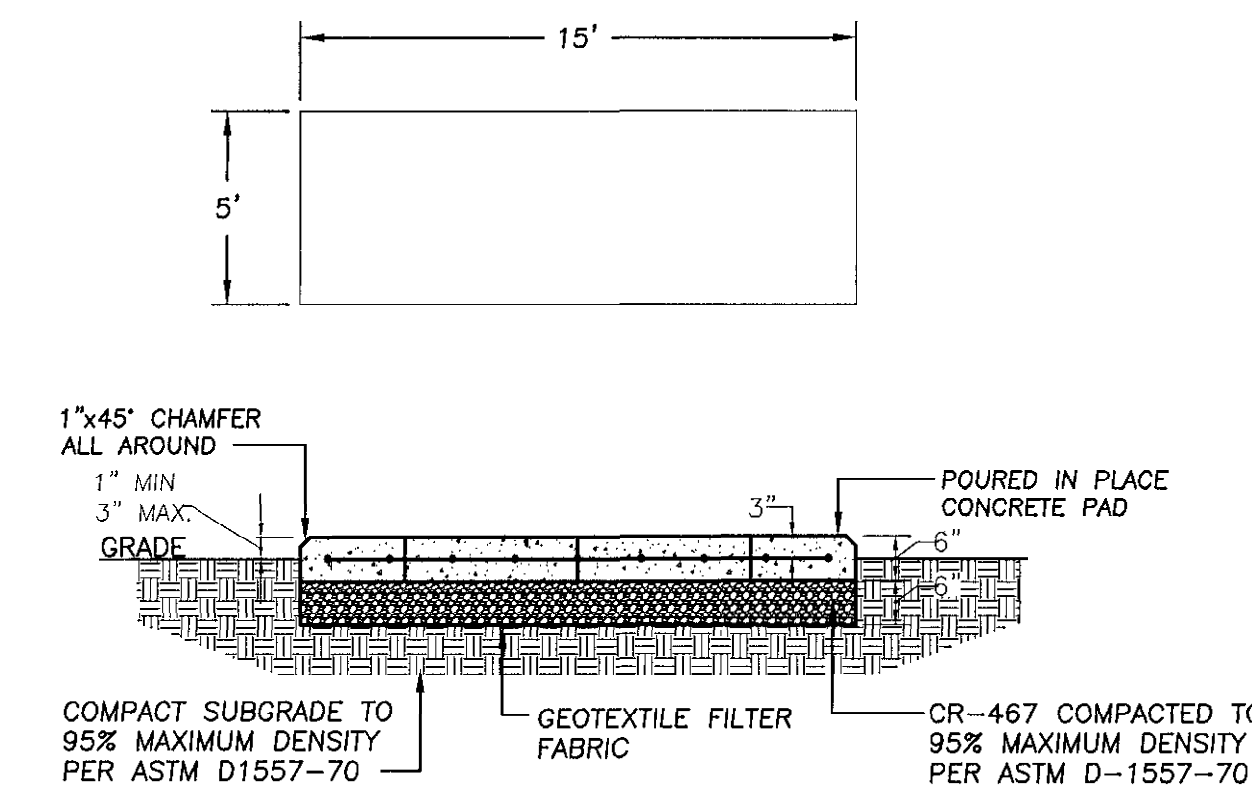
MARK	FIXTURE DESCRIPTION			REMARKS	VOLT	MOUNTING	LAMPS		MANUFACTURER	TYPICAL LOCATION
	ILLUM	TYPE	FINISH				QTY	TYPE		
X1	HID	WALLLIGHT	BRONZE	ARCHITECTURAL STYLE WIDE THROW DISTRIBUTION	120	SURFACE BLDG	1	100 WATT M.H.	McPHILBEN #101 SERIES	-
X2	HID	CUT-OFF	BRONZE	FORWARD DISTRIBUTION	208	SURFACE BLDG	1	175 WATT M.H.	GE LIGHTING #SPMM-17-MH-2-A-G	
X3	HID	CUT-OFF POLE	BRONZE	FORWARD THROW DISTRIBUTION	208	16' POLE	1	175 WATT M.H.	GE LIGHTING #DSM-17-MH-2-A-G	
X4	HID	CUT-OFF POLE	BRONZE	WIDE THROW DISTRIBUTION	208	16' POLE	1	175 WATT M.H.	GE LIGHTING #DSM-17-MH-2-A-G	

EXTERIOR LIGHTING NOTES:

1. VERIFY BASE OF LAMP WITH FIXTURE SUPPLIER.

GENERAL FIXTURE NOTES:

1. FIXTURE MARK IS TYPICAL FOR ALL FIXTURES OF THE SAME SYMBOL TYPE WITHIN THE SAME ROOM OR AREA U.N.O.
2. FIXTURE CATALOG # ESTABLISHES THE MANUFACTURER'S SERIES # - COMPLETE CATALOG # SHALL BE DETERMINED BY THE SCHEDULE DESCRIPTION, PLAN NOTES, AND THE SPECIFICATIONS.



EMERGENCY GENERATOR PAD DETAIL

NO SCALE

NOTE: CONTRACTOR SHALL COORDINATE PAD SIZE WITH GENERATOR THAT IS TO BE PURCHASED PRIOR TO THE COMMENCEMENT OF WORK.

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REVISIONS

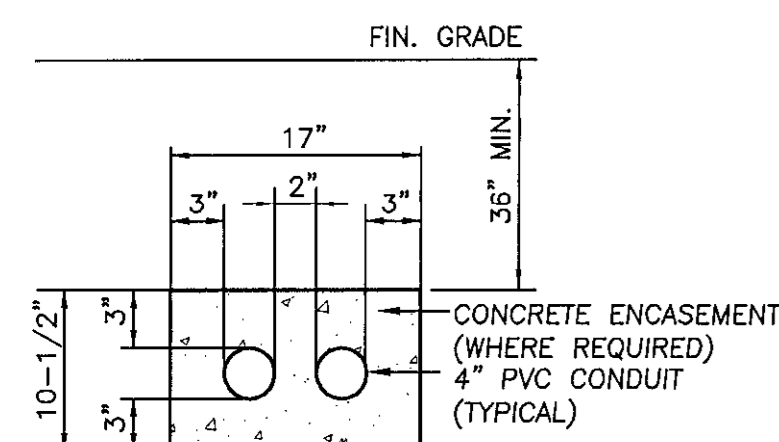
NO.	DATE	DESCRIPTION

**NEW MAINTENANCE FACILITY
 ROCKBURN PARK
 FOR
 HOWARD COUNTY PARKS
 & RECREATION**

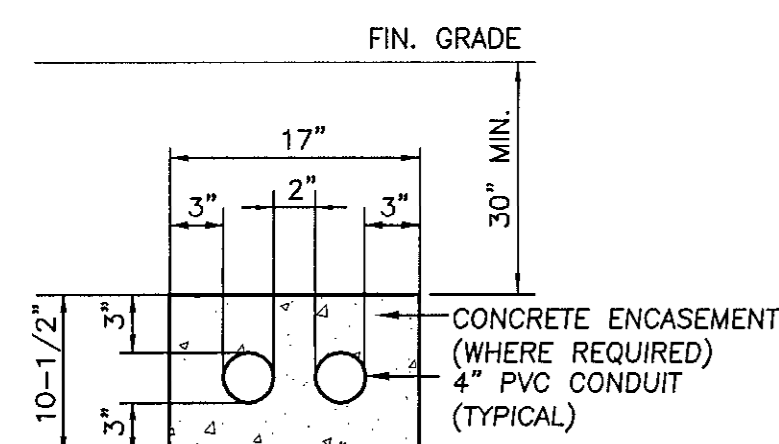
PROJECT NUMBER:	0503
PRELIMINARY ISSUE:	04/24/03
CONSTRUCTION ISSUE:	08/18/06
CADD FILE NAME:	

SYMBOL LEGEND AND SPECIFICATIONS

SHEET NUMBER: **E-4**

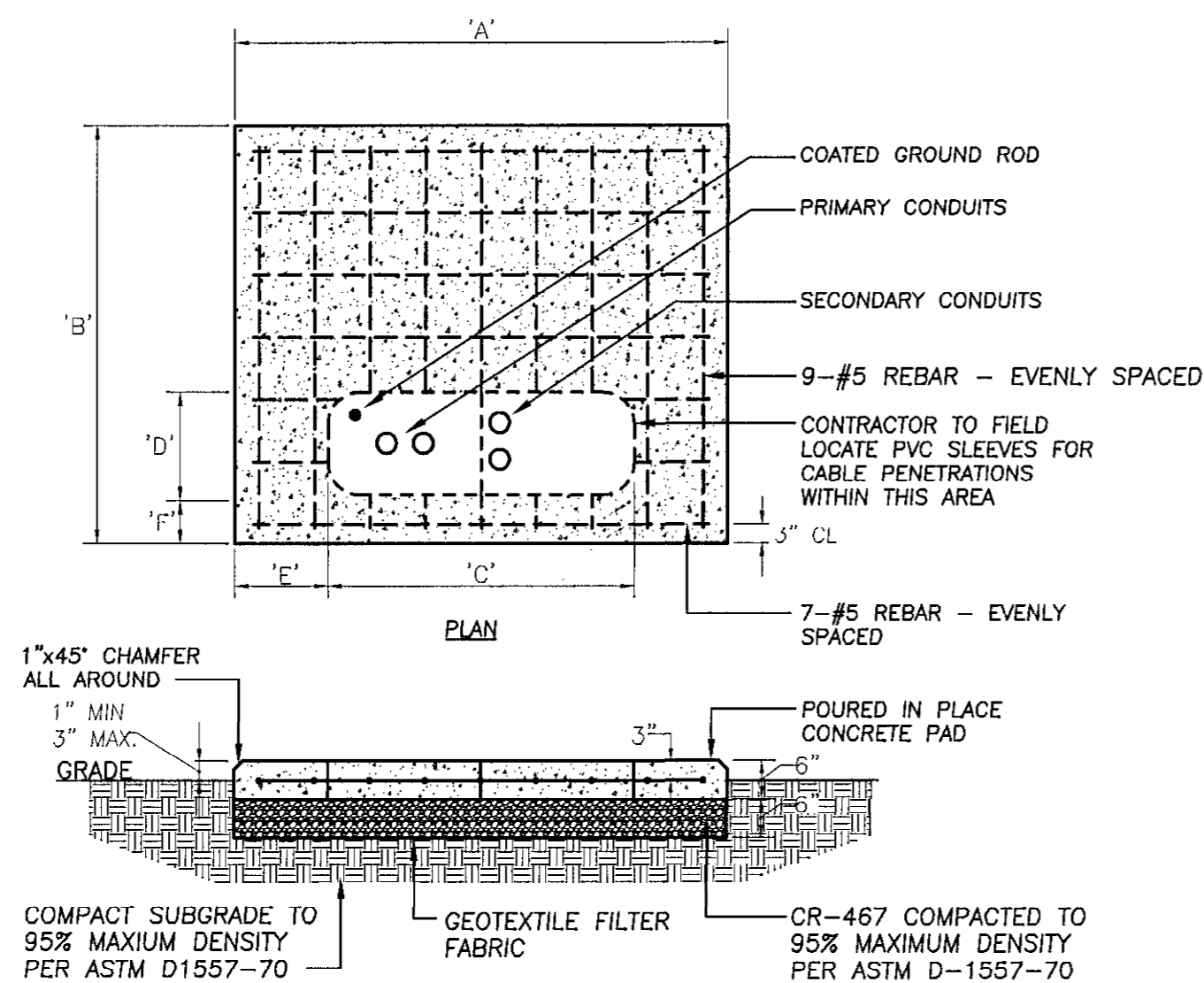


2 WAY PRIMARY DUCTBANK DETAIL
NO SCALE



2 WAY SECONDARY DUCTBANK DETAIL
NO SCALE

- DUCTBANK NOTES:**
1. PROVIDE DUCTBANK SPACERS EVERY 48" MINIMUM.
 2. PROVIDE TEMPORARY ANCHORING TO PREVENT CONDUITS FROM FLOATING DURING POUR.
 3. 2-WAY & 3-WAY DUCTBANKS REQUIRE CONCRETE ENCASUREMENT ONLY AT 90 DEGREE BENDS, AT TRANSFORMER & BELOW PARKING LOTS/ROADWAYS.

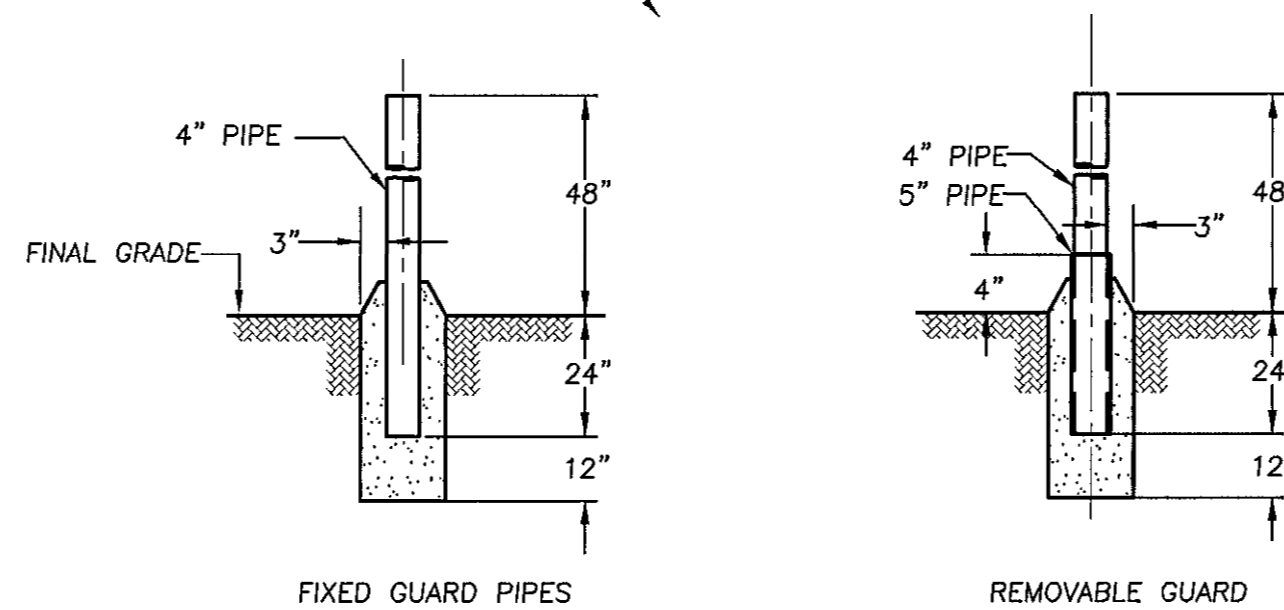
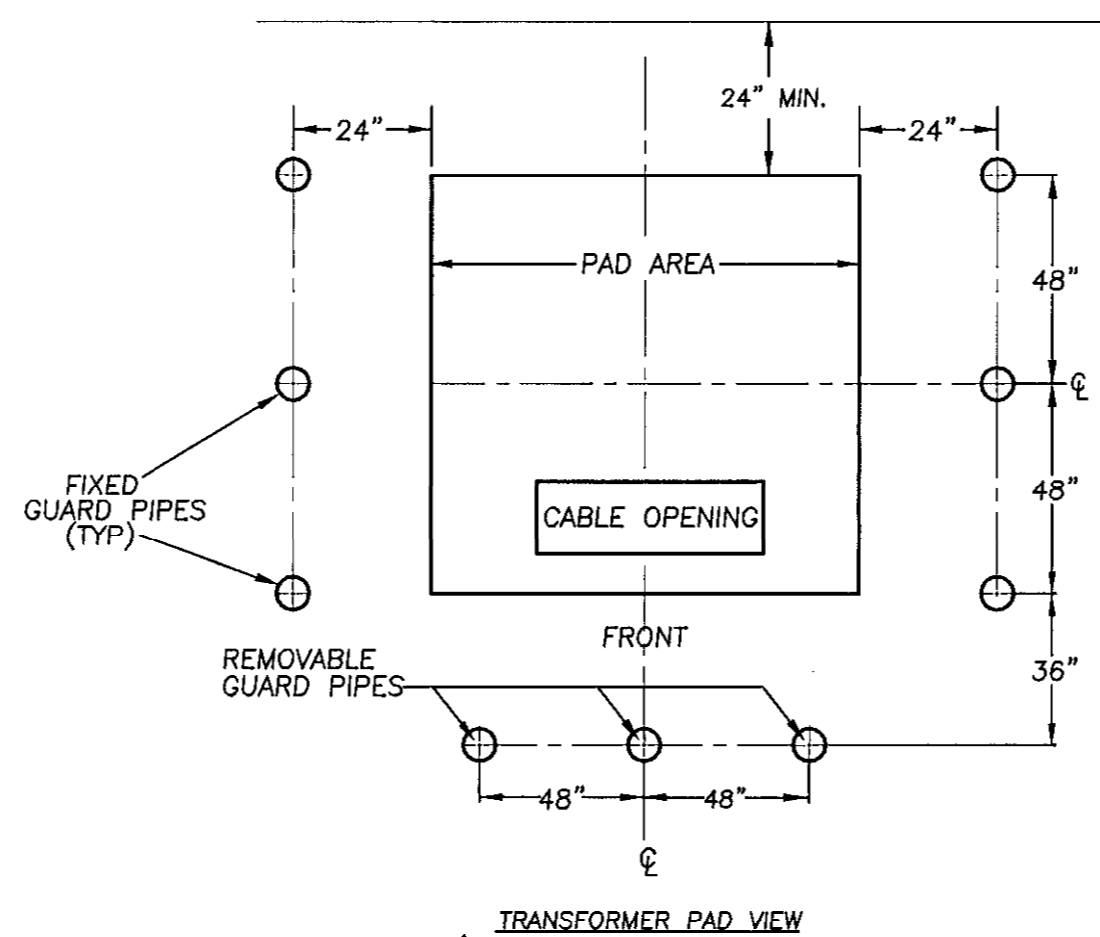


TRANSFORMER PAD DETAIL
NO SCALE

TRANSFORMER PAD DIMENSIONS						
RATING	A	B	C	D	E	F
75-500 KVA	76"	66"	50"	18"	14"	6"

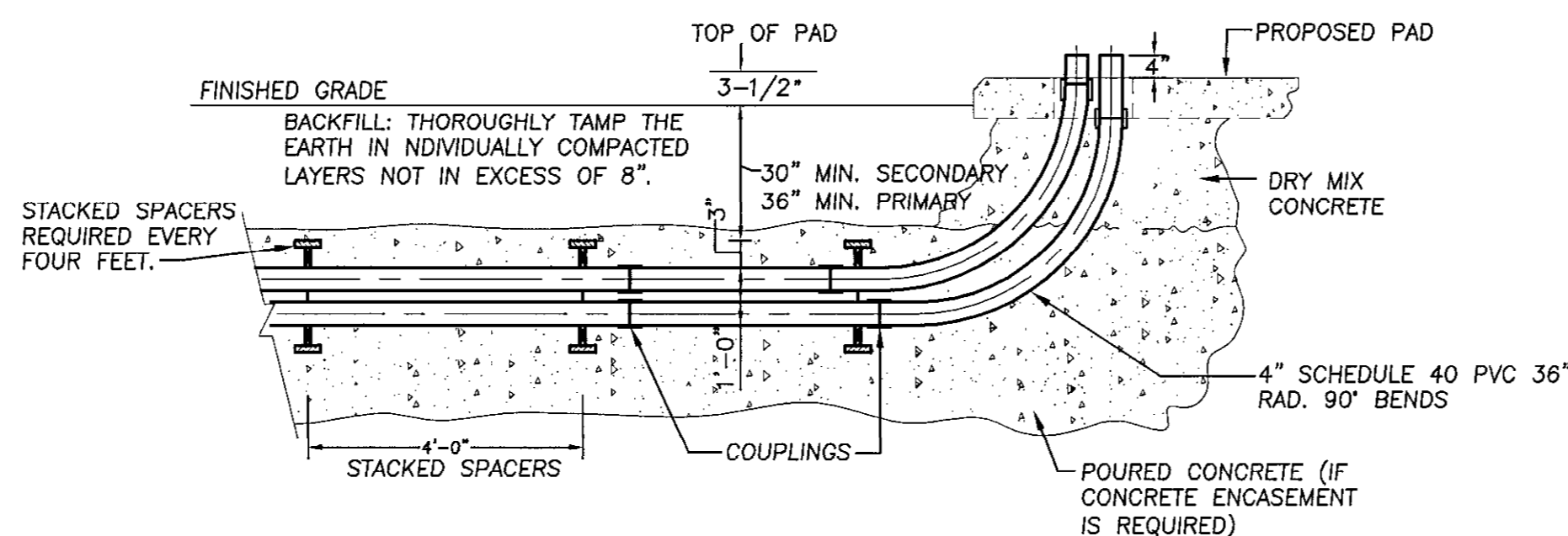
NOTES:
1. VERIFY PAD REQUIREMENTS W/LOCAL UTILITY COMPANY.
2. PROVIDE SUMP WHERE REQUIRED BY UTILITY COMPANY.

- GENERAL NOTES:**
1. DETAILS SHOWN ON THIS PLAN ARE INTENDED FOR REFERENCE, & GENERAL CONFORMANCE TO UTILITY COMPANY REQUIREMENTS.
 2. UTILITY SERVICE WORK & MATERIALS USED TO BE IN STRICT ACCORDANCE WITH UTILITY COMPANY.
 3. CONTRACTOR SHALL INSTALL SYSTEM BASED ON THE FINAL UTILITY COMPANY ENGINEERING DRAWINGS.

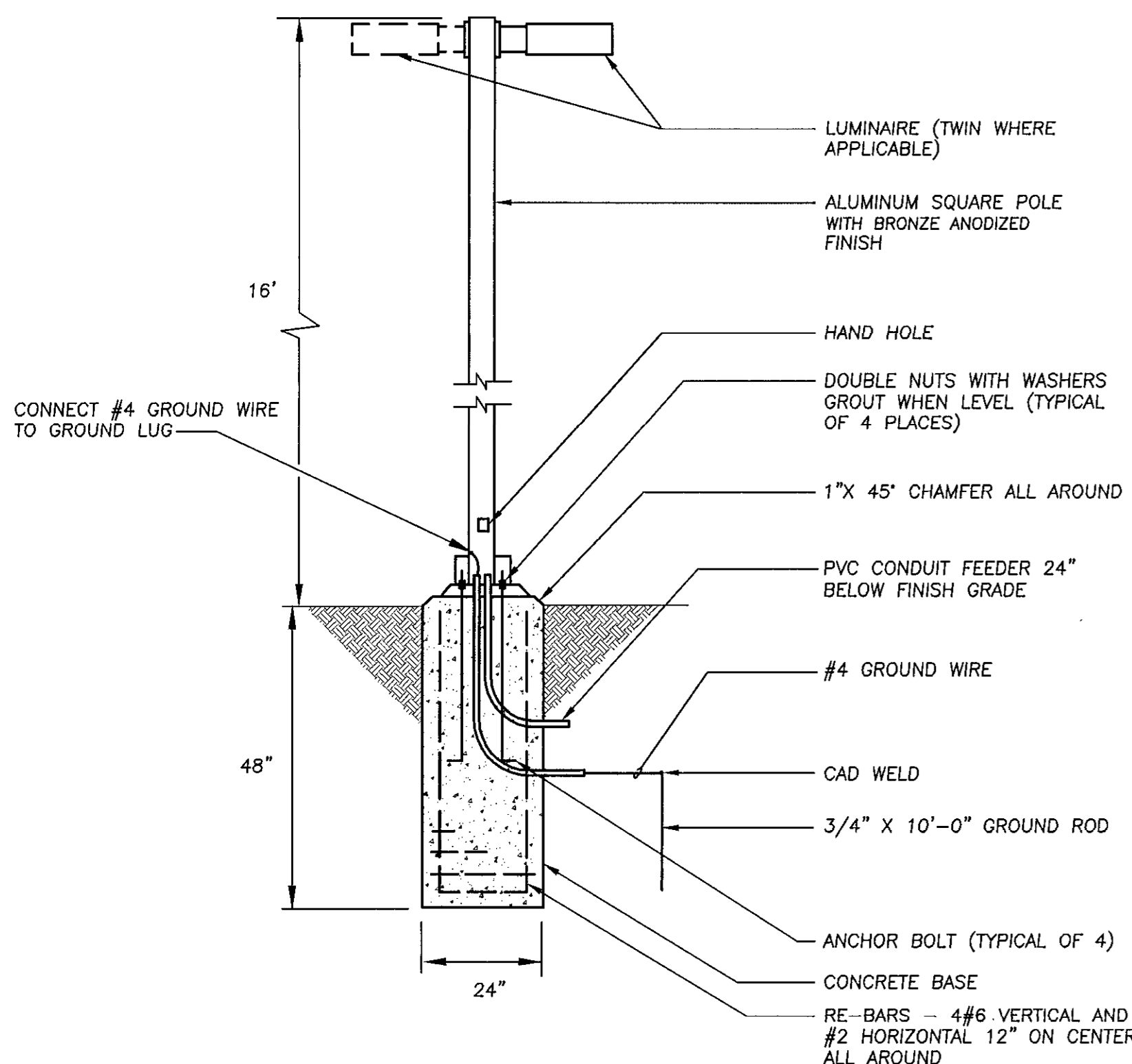


- DESCRIPTION**
1. GUARD PIPE
 2. GUARD PIPE ASSEMBLY
- MATERIAL NUMBERS**
- 12-062
 - 12-167
- NOTES:
(A) TRAFFIC PROTECTION REQUIRED WHEN TRANSFORMER IS INSTALLED WITHIN 8' OF A ROADWAY OR PARKING LOT.
(B) 24" OF CLEARANCE MUST BE MAINTAINED AROUND EQUIPMENT. ALL DIMENSIONS SHOWN ARE MINIMUM AND ARE NOT TO BE REDUCED. GAURD PIPES ARE POSITIONED AS SHOWN SO THAT THE VEHICLE WILL NOT COME INTO CONTACT WITH THE EQUIPMENT. IF SPACE DOES NOT ALLOW, A MODIFIED TRAFFIC PROTECTION CONFIGURATION CAN BE SUPPLIED BY YOUR BGE REPRESENTATIVE.
(C) INSTALL REMOVABLE GUARD PIPES IN FRONT OF EQUIPMENT DOORS ON FRONT OF TRANSFORMER AS INDICATED.
(D) INSTALL ALL GUARD PIPE BASES, BOTH STATIONARY AND REMOVABLE, IN CONCRETE. FOR STATIONARY GUARD PIPES ONLY, FILL PIPES WITH CONCRETE. TWO (2) CU. FT. OF CONCRETE IS REQUIRED TO SET EACH BASE.

TRAFFIC PROTECTION DETAIL
NO SCALE



TURNING CONDUITS INTO TRANSFORMER PADS
NO SCALE



POLE BASE DETAIL
NO SCALE

PANEL P
(SECTION 1)
400 AMP MAIN C/B

VOLTAGE: 120 / 208
PHASE, WIRE: 3 PH, 4 W

A.I.C.: 22k
MOUNTED: SURFACE

CKT	SERVING	C/B		WIRE		KVA	PH	WIRE		C/B		SERVING	CKT	
		P	TRIP	QTY	AWG			QTY	AWG	P	TRIP			
1	REC-GARAGE	1	20	2	12	1.5	A	1.5	2	12	1	20	REC-GARAGE	2
3	REC-GARAGE	1	20	2	12	1.5	B	1.5	2	12	1	20	REC-WATER COOLER	4
5	REC-GARAGE	1	20	2	12	1.5	C	1.5	2	12	1	20	REC-OPEN OFFICE AREA	6
7	REC-STORAGE	1	20	2	12	1.5	A	1.5	2	12	1	20	REC-TOILET RMS.	8
9	REC-OFFICE AREA	1	20	2	12	1.5	B	1.5	2	12	1	20	REC-LOCKR. RM/EXT.	10
11	REC-CONFERENCE RM.	1	20	2	12	1.5	C	1.5	2	12	1	20	REC-OFFICE	12
13	REC-CONFERENCE RM.	1	20	2	12	1.5	A	1.5	2	12	1	20	REC-REFRIGERATOR	14
15	REC-OFFICE	1	20	2	12	1.5	B	1.5	2	12	1	20	REC-KITCHEN COUNTER	16
17	REC-KITCHEN	1	20	2	12	1.5	C	1.5	2	12	1	20	REC-KITCHEN COUNTER	18
19	GARBAGE DISPOSAL	1	20	2	12	1.5	A	1.5	2	12	1	20	REC-COMM. BACKBOARD	20
21	REC-ELECTRICAL RM.	1	20	2	12	1.5	B	1.5	2	12	1	20	TIMELOCK	22
23	REC-MECHANICAL RM.	1	20	2	12	1.5	C	0.9	2	12	1	20	LTG-ELEC./MECH./STOR.	24
25	LTG-OPEN OFFICE/CORR.	1	20	2	12	1.2	A				1	20	SPARE	26
27	LTG-OFFICE/CONF./KITCH.	1	20	2	12	1.1	B	0.8	2	10	1	20	LTG-EXTERIOR BLDG.	28
29	SPARE	1	20				C	0.2	2	12	1	20	RADIANT HEATER	30
31	LTG-GARAGE	2	20	2	12	1.0	A	0.2	2	12	1	20	RADIANT HEATER	32
33		1	20	2	12	1.0	B	0.2	2	12	1	20	RADIANT HEATER	34
35	LTG-GARAGE	2	20	2	12	1.2	C	0.2	2	12	1	20	RADIANT HEATER	36
37		1	20	2	12	1.2	A	0.2	2	12	1	20	OIL INTERCEPTOR CONTROL	38
39	LTG-GARAGE	2	20	2	12	1.0	B	0.2	2	12	2	20	LTG-GARAGE N.L.	40
41						1.0	C	0.2						42

TOTAL DEMAND KVA (PER PHASE): A: 12.4 B: 13.1 C: 11.4 DESIGN KVA: 39 DESIGN AMPS: 120

PANEL P1
(SECTION 2)
400 AMP MAIN LUG

VOLTAGE: 120 / 208
PHASE, WIRE: 3 PH, 4 W

A.I.C.: 22k
MOUNTED: SURFACE

CKT	SERVING	C/B		WIRE		KVA	PH	WIRE		C/B		SERVING	CKT	
		P	TRIP	QTY	AWG			QTY	AWG	P	TRIP			
1	EXHAUST FAN #3	1	20	2	12	0.9	A	1.2	2	12	1	20	GARAGE DOOR	2
3	ELECTRIC HEATER #4	1	20	2	12	0.5	B	1.2	2	12	1	20	GARAGE DOOR	4
5	GAS-FIRED FURNACE	1	20	2	12	1.8	C	1.2	2	12	1	20	GARAGE DOOR	6
7	REC-TRUCK PARKING	1	20	2	12	1.5	A	1.2	2	12	1	20	GARAGE DOOR	8
9	REC-TRUCK PARKING	1	20	2	12	1.5	B	1.2	2	12	1	20	GARAGE DOOR	10
11	REC-TRUCK PARKING	1	20	2	12	1.5	C	1.2	2	12	1	20	GARAGE DOOR	12
13	ICE MAKER	1	20	2	12	1.8	A				1	20	SPARE	14
15	BUSSED SPACE						B	0.6	4	12	3	20	SLIDING GATE	16
17	BUSSED SPACE						C	0.6						18
19	SITE LIGHTING	2	20	2	10	0.9	A	0.6						20
21						0.9	B	0.6	4	12	3	20	SLIDING GATE	22
23	SITE LIGHTING	2	20	2	10	0.7	C	0.6						24
25						0.7	A	0.6						26
27	SITE LIGHTING	2	20	2	10	1.0	B	0.7	2	10	2	20	SITE LIGHTING	28
29						1.0	C	0.7						30
31	ELECTRIC HEATER #3	2	20	2	12	1.2	A	1.0	3	12	2	20	FIRE ALARM CONTROL PANEL	32
33						1.2	B	1.0						34
35	ELECTRIC HEATER #2	2	20	2	12	1.2	C	2.6	2	10	2	30	ELECTRIC WATER HEATER	36
37						1.2	A	2.6						38
39	ELECTRIC HEATER #1	2	20	2	12	1.2	B	4.5	2	6	2	60	AIR COOLED CONDENSER	40
41						1.2	C	4.5						42

TOTAL DEMAND KVA (PER PHASE): A: 11.7 B: 14.5 C: 16.0 DESIGN KVA: 48 DESIGN AMPS: 146

PANEL L
(SECTION 2)
100 AMP MAIN LUG

VOLTAGE: 120 / 208
PHASE, WIRE: 3 PH, 4 W

A.I.C.: 10k
MOUNTED: SURFACE

CKT	SERVING	C/B		WIRE		KVA	PH	WIRE		C/B		SERVING	CKT
		P	TRIP	QTY	AWG			QTY	AWG	P	TRIP		
1	LTG-EMERGENCY *	1	20	2	12	0.2	A			1	20	SPARE	2
3	LTG-EMERGENCY *	1	20	2	12	0.5	B			1	20	SPARE	4
5	FIRE ALARM	2	20	3	12	1.0	C			1	20	SPARE	6
7	CONTROL PANEL					1.0	A					BUSSED SPACE	8
9	BUSSED SPACE						B					BUSSED SPACE	10
11	BUSSED SPACE						C					BUSSED SPACE	12

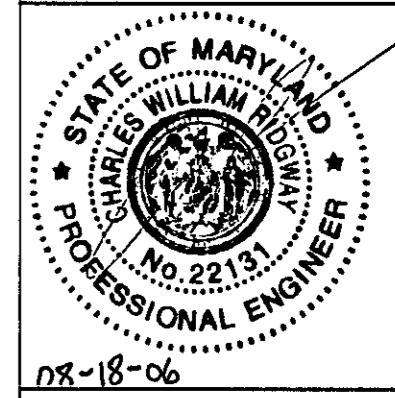
TOTAL DEMAND KVA (PER PHASE): A: 1.3 B: 0.6 C: 1.0 DESIGN KVA: 4 DESIGN AMPS: 11

NOTES:
* PROVIDE HANDLE LOCK ON CB COVER.

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REVISIONS

NO.	DATE	DESCRIPTION

NEW MAINTENANCE FACILITY
ROCKBURN PARK
FOR
HOWARD COUNTY PARKS & RECREATION

PROJECT NUMBER: 0503
PRELIMINARY ISSUE: 04/24/05
CONSTRUCTION ISSUE: 08/18/06
CADD FILE NAME:

PANELBOARD SCHEDULES

SHEET NUMBER: **E-5**
SRBR No: 05089