

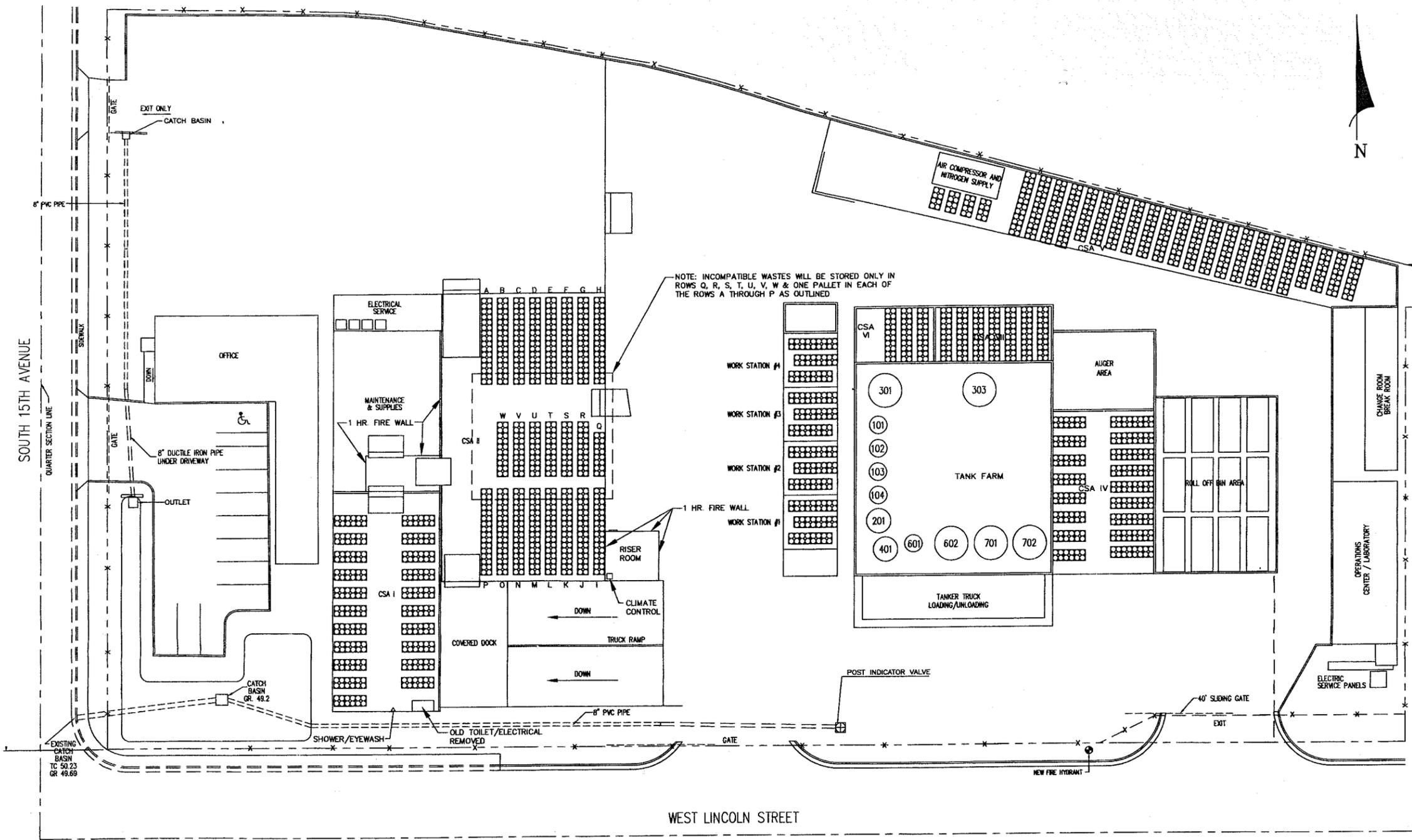
TABLE OF CONTENTS

DRAWINGS

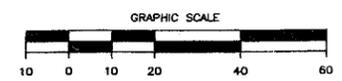
FP1	FACILITY PLAN with Legal Description
581-ADA-102	CSA IA & CSA IB ARRANGEMENT
581-ADA-104R	FLOOR PLAN AT CSA II AND LOADING DOCK
581-ADA-105R	WORKSTATION PLAN AND RAMP SECTIONS
581-ADA-108	GENERAL ARRANGEMENT TANK FARM
581-ADA-116	MISCELLANEOUS DETAILS
581-YDA-101	SITE REFERENCE PLAN
581-YDA-102	GRADING & DRAINAGE PLAN W/OFFSITE IMPROVEMENTS
581-YDA-103	GRADING & DRAINAGE DETAILS AND X-SECTIONS
581-CDA-101 (1995)	GENERAL STRUCTURAL NOTES
581-CDA-102	TYPICAL DETAILS & PT NOTES
581-CDA-103 (1995)	SITE PLAN
581-CDA-104	FOUNDATION PLAN AT PT SLAB
581-CDA-108 (1995)	DETAILS
581-CDA-109 (1995)	DETAILS
581-CDA-101 (1996)	GENERAL STRUCTURAL NOTES
581-CDA-103 (1996)	SITE PLAN – PHASE II
581-CDA-105	FOUNDATION AT LOADING DOCK AND WORKSTATIONS
581-CDA-106	FOUNDATION PLAN AT CSA II AND MAINTENANCE

581-CDA-107	DETAILS
581-CDA-108 (1996)	DETAILS
581-CDA-109 (1996)	DETAILS
581-CDA-110	DETAILS
PH-F-01	PIPING & INSTRUMENT DIAGRAM VAPOR RECOVERY SYSTEM with Description of control system for Overfill Protection
NO IDENTIFIER	GUIDA SURVEYING INC. (FIRST SURVEY 2007) SHEET 1 OF 2 SHEET 2 OF 2
OR1022294-8521	GUIDA SURVEYING INC. (SECOND SURVEY 2008) SHEET 1 OF 3 SHEET 2 OF 3 SHEET 3 OF 3
WIND ROSE	GUIDA SURVEYING INC SHEET 1 OF 1 (AERIAL WITH WIND ROSE)

NO.	REVISION	DATE	BY
3	ISSUE FOR APPROVAL	04/25/95	RNS
4	ISSUED FOR ENG. REVIEW & BID	06/14/95	RNS
5	ISSUED FOR FINAL ENG. REVIEW	08/08/95	RNS
6	ISSUED FOR ADMIN. OFFICE PERMIT	09/26/95	RNS
7	ISSUED FOR ADMIN. OFFICE PERMIT	10/10/95	RNS
8	GENERAL REVISION	11/28/06	NDS
9	ISSUED FOR PERMIT RENEWAL	07/13/09	KMC
10	ISSUED FOR PERMIT RENEWAL UPDATE	12/17/09	KMC



NOTE: INCOMPATIBLE WASTES WILL BE STORED ONLY IN ROWS Q, R, S, T, U, V, W & ONE PALLET IN EACH OF THE ROWS A THROUGH P AS OUTLINED





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FACILITY PLAN

CLEAN HARBORS ENVIRONMENTAL SERVICES
 1340 WEST LINCOLN STREET
 PHOENIX, ARIZONA
 PHONE: (602) 258-6155 FAX: (602) 258-8353

<small>DRW. BY:</small> BOB	<small>DATE:</small> 11/21/04	<small>CADD NO.:</small> FP1
<small>DSG. BY:</small>	<small>DATE:</small>	<small>PROJECT NO.:</small> 1513
<small>APP. BY:</small>	<small>DATE:</small>	<small>DWG. No.:</small>
<small>SCALE:</small> 1" = 20'		<small>FP1</small>



Legal Description

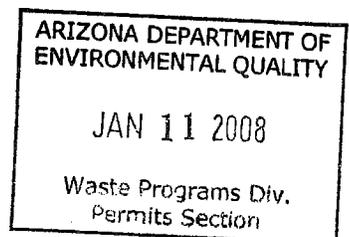
**Clean Harbors Arizona, LLC
1340 W Lincoln Street
Phoenix, Arizona**

Lots 6, 8, 10, 12, 14, 16, 18, 20, 20, 22, and 24 of Block 5, IRVINE'S ADDITION AMENDED MAP, being a portion of Section 7, Township 1 North, Range 3 East, According to Book 1 of Maps, Page 29 in the Records of the County Recorders Office, County of Maricopa, State of Arizona.

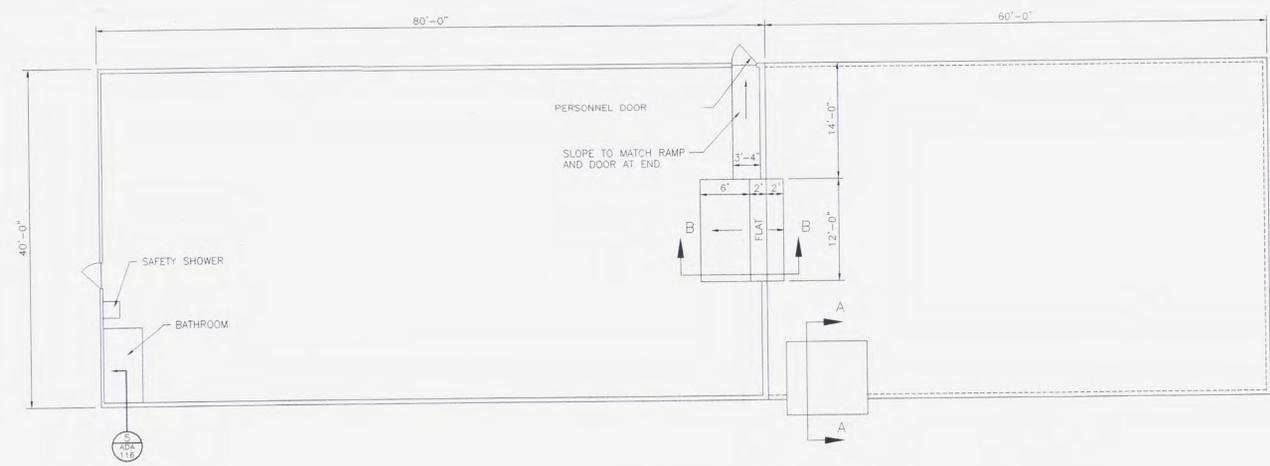
AND

Being a portion of Lots 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, and 23 of Block 5, IRVINE'S ADDITION AMENDED MAP, being a portion of Section 7, Township 1 North, Range 3 East, According to Book 1 of Maps, Page 29 in the Records of the County Recorders Office, County of Maricopa, State of Arizona, described as follows:

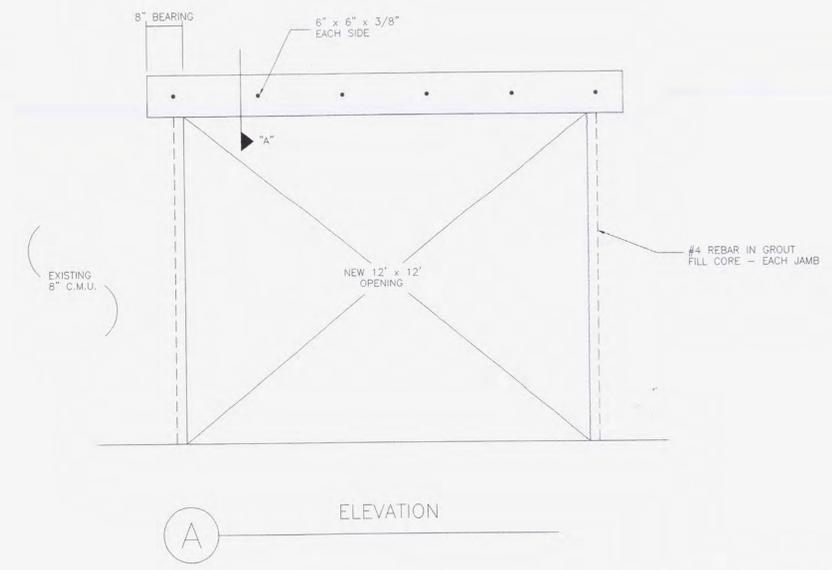
BEGINNING at the Southeast corner of Lot 1; thence South 89 degrees 59 minutes 47 seconds West, a distance of 16.22 feet, to a point; this being the TRUE POINT OF BEGINNING, THENCE North 77 degrees 48 minutes 10 seconds West, a distance of 137.00 feet to a point; thence North 75 degrees 07 minutes 46 seconds West, a distance of 91.82 feet, to a point; thence North 74 degrees 35 minutes 53 seconds West, a distance of 70.66 feet, to a point; thence North 73 degrees 06 minutes 21 seconds West, a distance of 50.84 feet, to a point; thence North 75 degrees 13 minutes 54 seconds West, a distance of 30.20 feet, to a point; thence North 79 degrees 34 minutes 47 seconds West, a distance of 96.17 feet, to a point; thence North 85 degrees 47 minutes 21 seconds West, a distance of 15.69 feet, to a point; thence North 89 degrees 32 minutes 04 seconds West, a distance of 86.66 feet, to a point; thence South 00 degrees 01 minutes 10 seconds West, a distance of 113.03 feet, to a point; thence North 89 degrees 59 minutes 47 seconds East, a distance of 565.55 feet, to the TRUE POINT OF BEGINNING.



NO.	REVISION	DATE	BY
1	ISSUED FOR CONSTRUCTION	10/11/95	RNS
2	AS BUILT	7/18/96	GWL
3	AS BUILT	4/24/98	DEC
4	RECORD SET	11/28/06	WDS

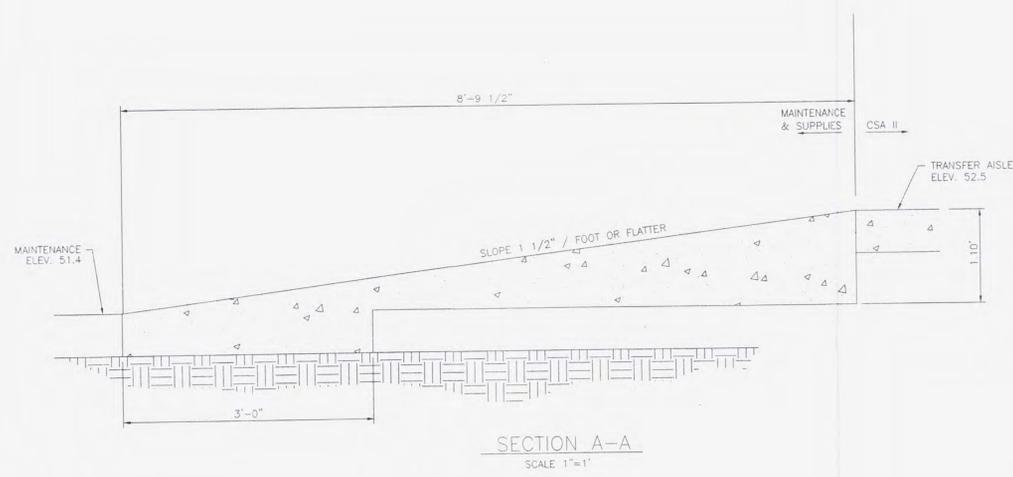


PLAN VIEW
SCALE 1"=10'

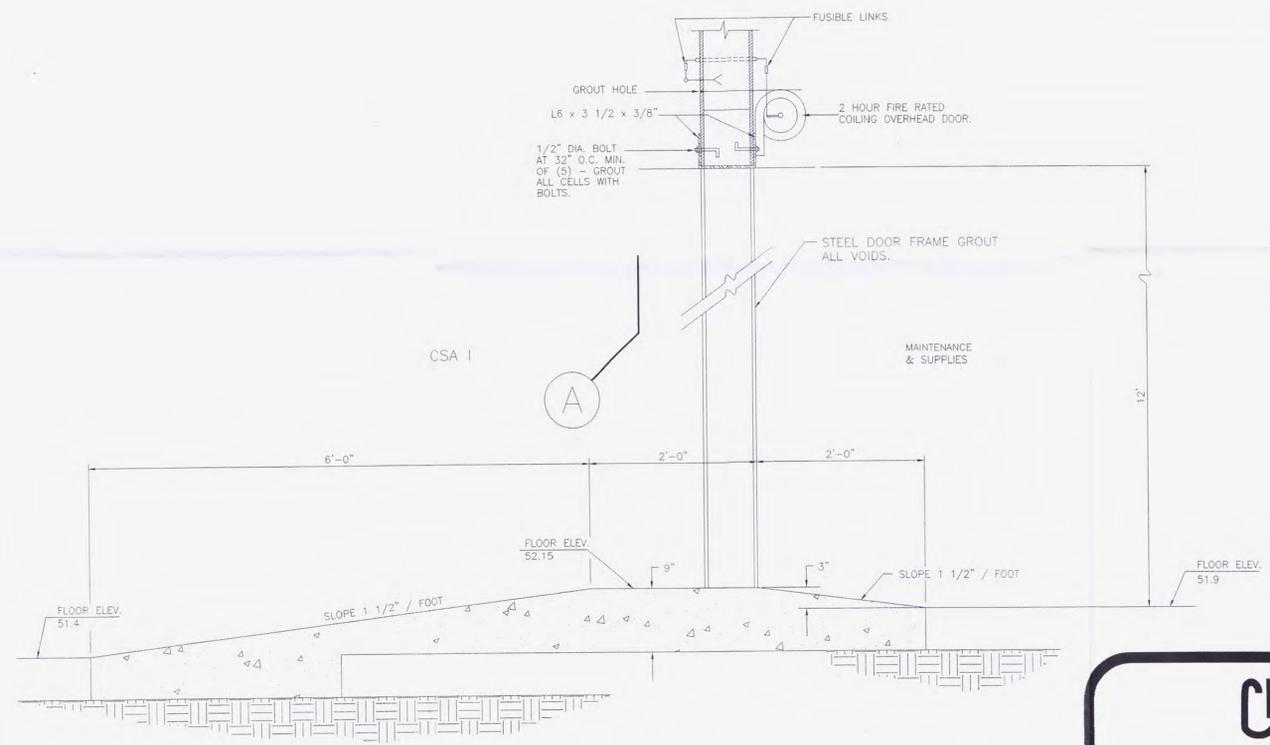


ELEVATION
A

- NOTES:
- FLOOR SLAB IS A CONTAINMENT STRUCTURE. ROUTE ALL FLOOR CRACKS AND JOINTS, INSTALL FOAM BACKER ROD AND CAULK WITH APPROVED CAULK.
 - GROOVE EXISTING FLOOR SLAB AND TIE IN NEW RAMPS.
 - REPAIR ALL CHIPS AND HOLES WITH OWNER APPROVED EPOXY MATERIAL. COAT REPAIRED SLAB WITH OWNER APPROVED PENETRATING EPOXY SEALER.



SECTION A-A
SCALE 1"=1'



SECTION B-B
SCALE 1"=1'



RECORD SET

CleanHarbors

THIS DRAWING IS THE PROPERTY OF CLEAN HARBORS ENVIRONMENTAL SERVICES. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED OR USED WITHOUT WRITTEN PERMISSION OF CLEAN HARBORS ENVIRONMENTAL SERVICES.

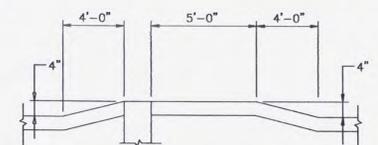
CSA I & CSA II ARRANGEMENT

CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
PHONE (602)258-6155

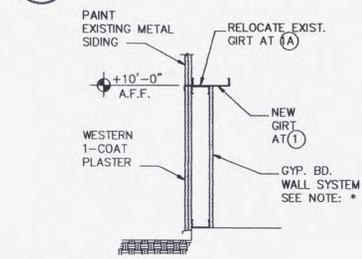
DRW BY: BDB	DATE: 02/05/95	CADD NO: 50902024
DSG BY:	DATE:	PROJECT NO: 13-50919.00
APP BY:	DATE:	DWG. No.
SCALE: AS SHOWN		581-ADA-102

Revised 1/9/08 by JMMcl. at AKE, Inc.
Placement of waste in CSA I and CSA II
was modified to match containment
calculations.

NO.	REVISION	DATE	BY
1	CITY REVISIONS	8/1/96	GM
2	CITY REVISIONS	9/9/96	DEL
3	AS BUILT	4/24/98	DEL
4	RECORD SET	12/12/06	WDS



2 RAMP AT 3'-0" DOOR



1A DETAIL

GA FILE NO. WP 1200
GYPSUM WALLBOARD, METAL STUDS
ONE LAYER 5/8" TYPE "X" GYPSUM WALLBOARD OR VENEER BASE APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 3 5/8" METAL STUDS 24" O.C. WITH 1" TYPE S DRYWALL SCREWS 8" O.C. TO VERTICAL EDGES AND 12" O.C. TO TOP AND BOTTOM RUNNERS AND INTERMEDIATE STUDS. STAGGER ALL VERTICAL AND HORIZONTAL JOINTS 24" O.C. EACH SIDE AND OPPOSITE SIDES. (NLB)
STUCCO SYSTEM
3581C20 AT 16" O.C. IN DETAIL 1/A2
I.C.B.O. #3878

FLOOR PLAN NOTES:

- MINIMUM DRUM STORAGE AISLE 48"
- MINIMUM AISLE BETWEEN DRUM AISLES 24"
- MINIMUM EXIT AISLE WIDTH = 44"
- SEE SHEET A1 FOR DOOR SCHEDULE.
- LOADING DOCK LEVELER NO. 1 SHALL BE RITE HITE MODEL RH1086 OR APPROVED EQUAL. IMBEDS AS REQUIRED BY EQUIPMENT MANUFACTURER TO BE FURNISHED AND INSTALLED.
- LOADING DOCK LEVELER NO.'S 2, 3, AND 4 SHALL BE RITE HITE MODEL E00400 OR APPROVED EQUAL. IMBEDS AS REQUIRED BY EQUIPMENT MANUFACTURER TO BE FURNISHED AND INSTALLED.
- ALL CONCRETE TO BE LIGHT BROOM FINISH.

LEGEND:

- CONCRETE CURB - NO EXTERIOR WALL
- WALLS
- MASONRY WALL - FULL HT.
- METAL SIDING/GIRTS - FULL HT.
- STUCCO SYSTEM OVER NEW/EXISTING METAL PANELS TO 10'-0" ABOVE FINISH FLOOR

A.V. SCHWAN & ASSOC., Inc.
CONSULTING
STRUCTURAL ENGINEERS
SCOTTSDALE, ARIZONA
(602) 265-4331

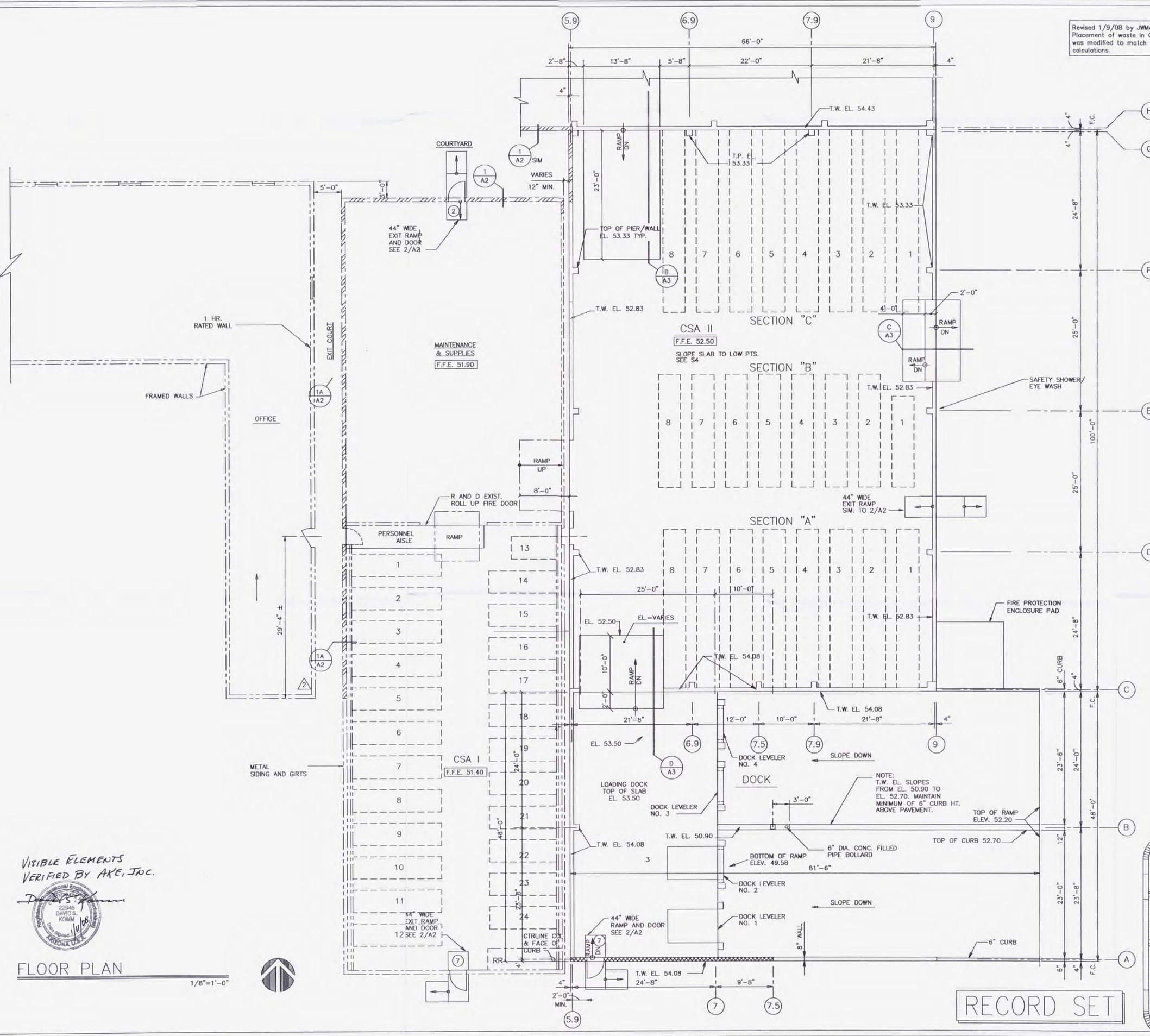


FLOOR PLAN AT CSAII AND LOADING DOCK

CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
TELEPHONE (602)258-6155

DRW. BY: DEL	DATE: 6/4/96	PROJECT NO: 4017
DSG. BY: EAP	DATE: 6/4/96	SHEET NO. A2
APP. BY: AVS	DATE: 6/4/96	DWG. NO.
SCALE: AS NOTED		581-ADA-104R

RECORD SET



VISIBLE ELEMENTS
VERIFIED BY AKE, INC.

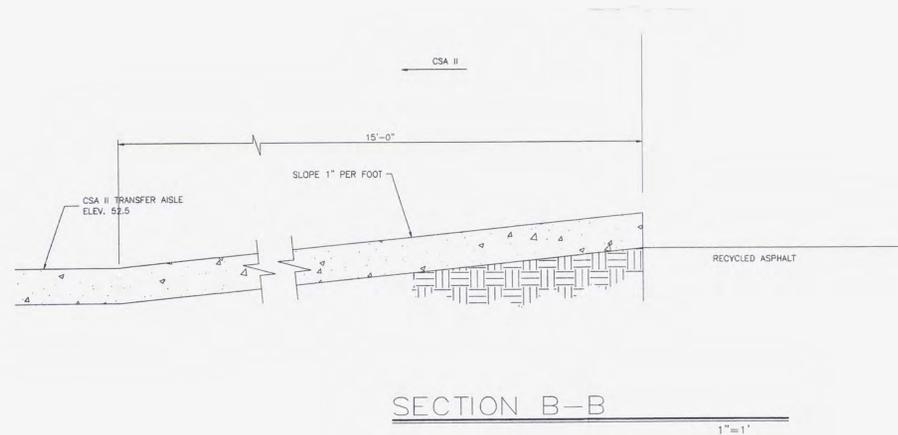


FLOOR PLAN

1/8"=1'-0"

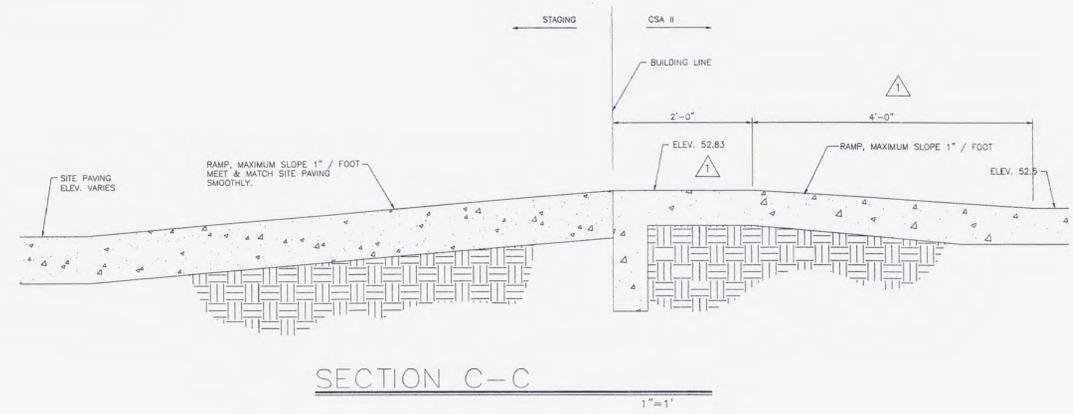


NO.	REVISION	DATE	BY
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2	AS BUILT	4/24/98	DEL
3	RECORD SET	12/12/06	WDS



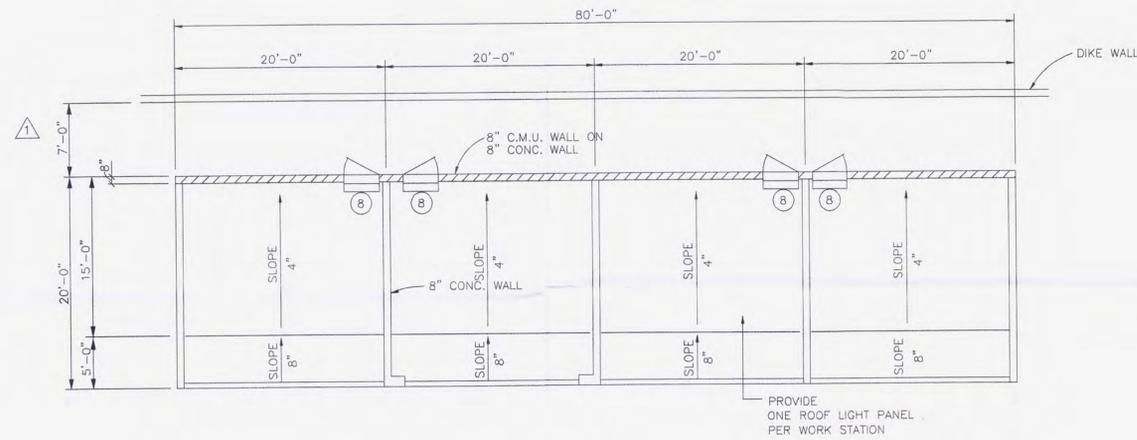
SECTION B-B

1"=1'



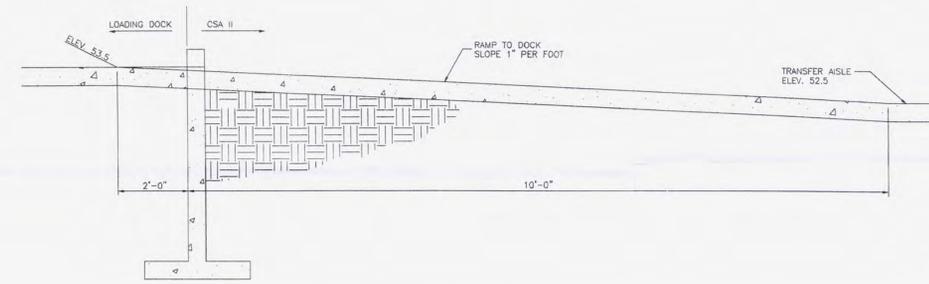
SECTION C-C

1"=1'



PLAN AT WORKSTATIONS

1/8"=1'-0"



SECTION D-D

1"=2'

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SCOTTSDALE, ARIZONA
(602) 255-4351



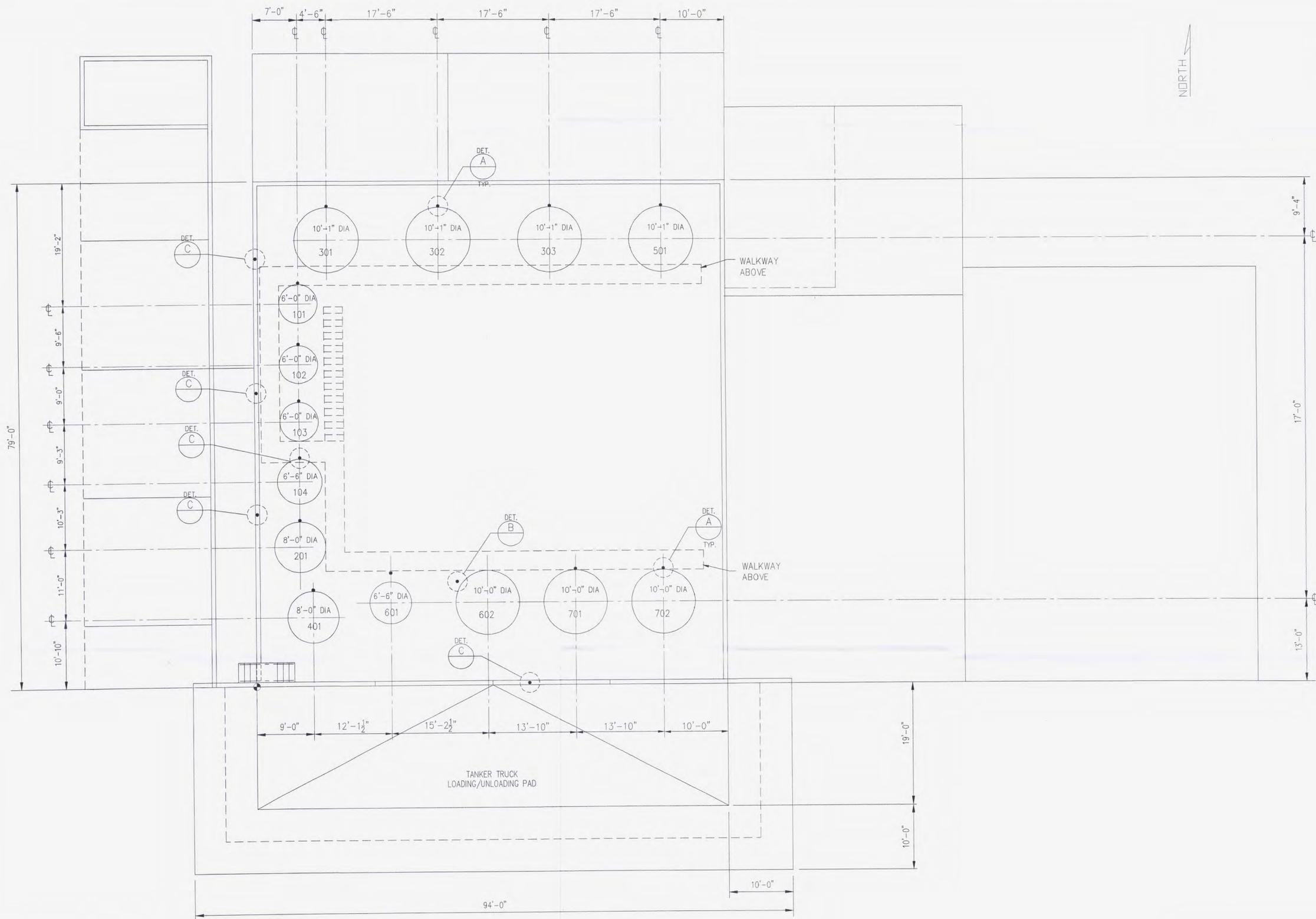
WORKSTATION PLAN
AND RAMP SECTIONS

CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
TELEPHONE (602) 258-6155

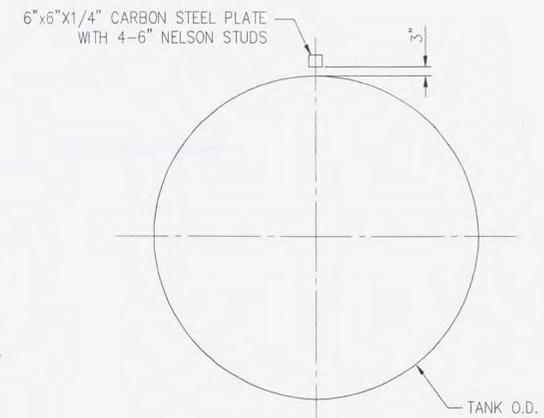
DRW. BY: DEL	DATE: 6/4/96	PROJECT NO: 4017
DSG. BY: EAP	DATE: 5/15/96	SHEET NO: A3
APP. BY: AVS	DATE: 5/15/96	DWG. NO.
SCALE: AS NOTED		581-ADA-105R



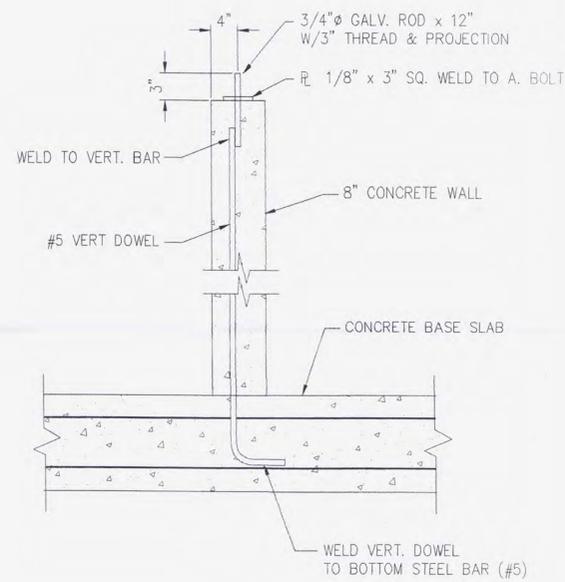
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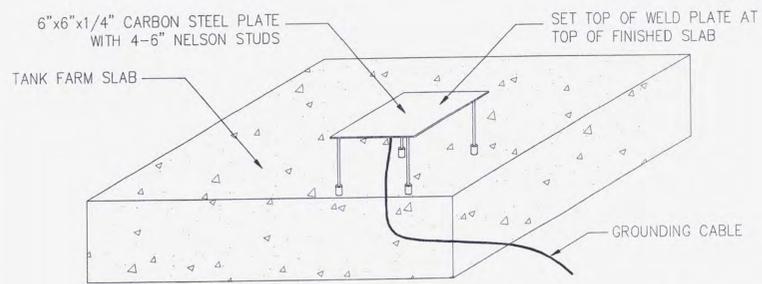
NORTH



DETAIL A
TYPICAL GROUND CONDUCTOR DETAIL AT TANKS
SCALE: NONE



DETAIL C
SCALE: NONE



DETAIL B
NOTE: TANK GROUNDING PLATE ONE FOR EACH TANK
SCALE: NONE

RECORD SET



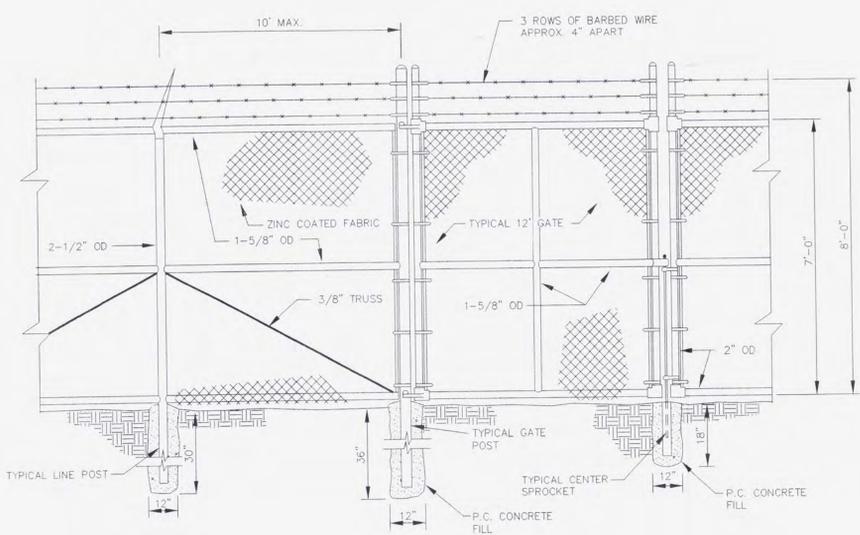
REV.	DESCRIPTION	BY	APP.	DATE
4	RECORD SET	WDS		12/8/06
3	AS BUILT	DEC		4/24/98
2	AS BUILT	CWL		7/18/96
1	ISSUED FOR CONSTRUCTION	RNS		10/11/95



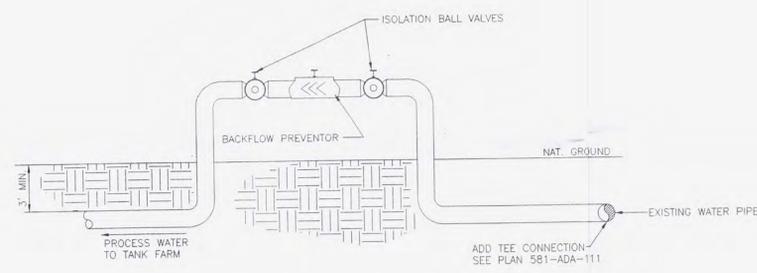
CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA 80057

DESIGN	SMJ	DATE	10/31/94	LOCATION	RECYCLING RESOURCES, INC. PHOENIX ARIZONA
APPROVED	BNB	DATE	11/14/94	PROJECT	TANK FARM
				TITLE	GENERAL ARRANGEMENT TANK FARM
				FILE NO.	ADA-108
				ENVIRONICS PROJ. NO.	13-50918.00
				SCALE	1/8" = 1'
				DWG NO.	581-ADA-108
				REV	4

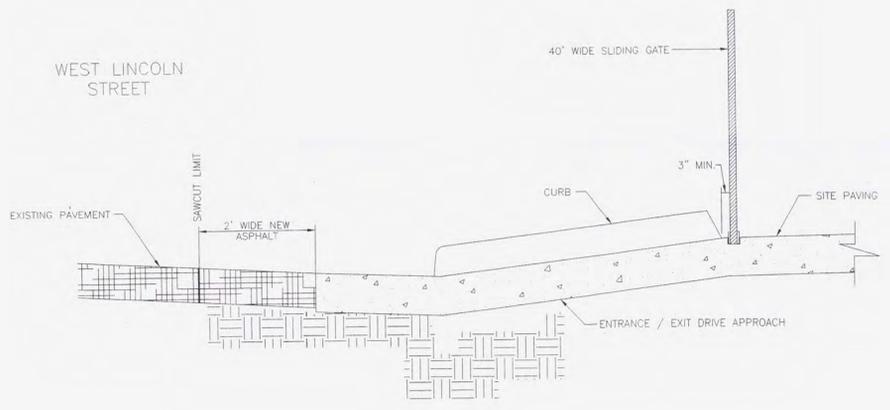
NO.	REVISION	DATE	BY
1	ISSUED FOR CONSTRUCTION	10/11/95	RNS
2	AS BUILT	7/18/96	GWL
3	RECORD SET	4/24/98	DEC



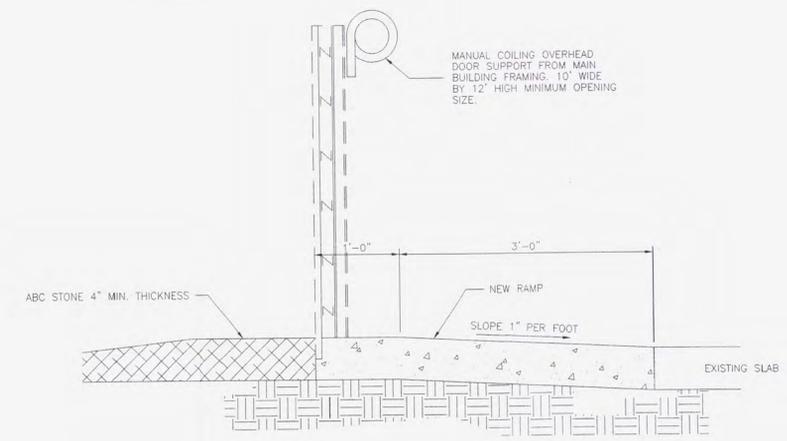
1 TYPICAL CHAIN-FENCE DETAIL
NOT TO SCALE
ADA 111



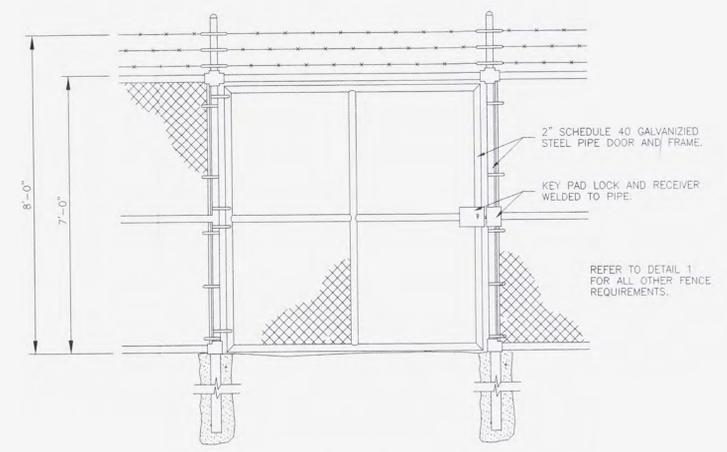
2 BACKFLOW PREVENTION DETAIL
NOT TO SCALE
ADA 111



4 ENTRANCE / EXIT CROSS SECTION
NOT TO SCALE
ADA 111



5 CROSS SECTION ROLL-UP DOOR
NOT TO SCALE
ADA 111



6 CHAIN-LINK GATE DETAIL
NOT TO SCALE
ADA 111



RECORD SET

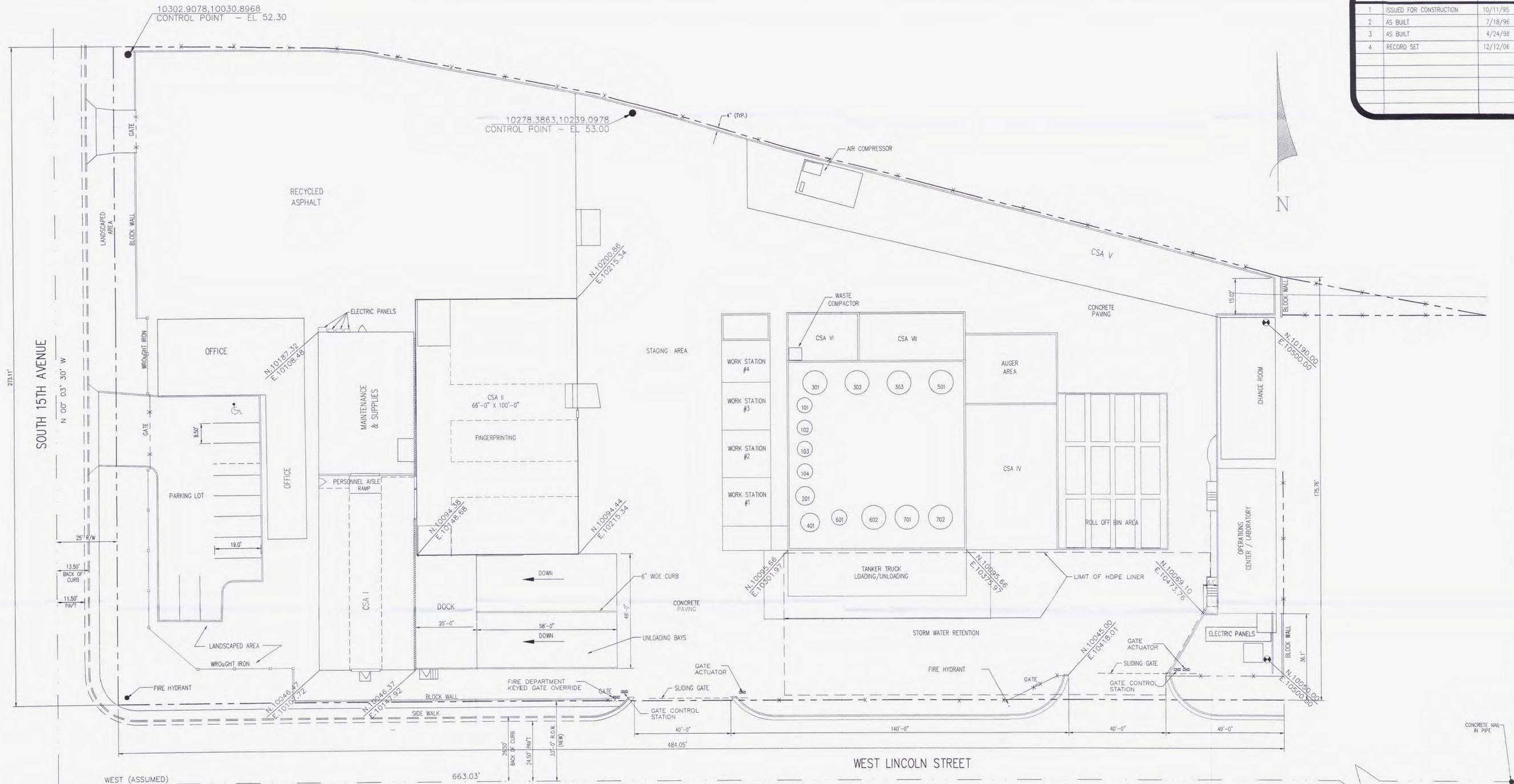


MISCELLANEOUS DETAILS

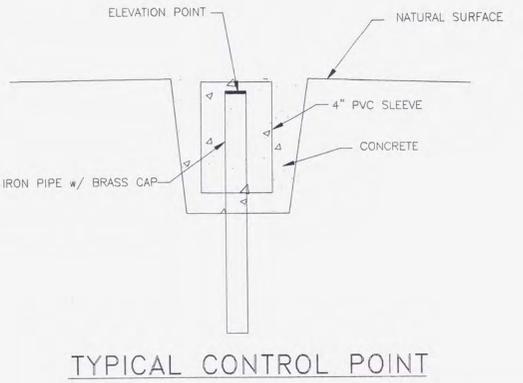
CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
TELEPHONE (602)258-6155

DRW. BY: MEN	DATE 06/08/95	CADD NO: 50902064
DSG. BY: RNS	DATE 06/05/95	PROJECT NO: 13-50919.00
CHK. BY:	DATE	DWG. No.
SCALE: NOTED		581-ADA-116

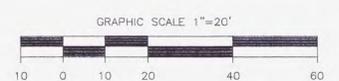
NO.	REVISION	DATE	BY
1	ISSUED FOR CONSTRUCTION	10/11/95	RNS
2	AS BUILT	7/18/96	GWL
3	AS BUILT	4/24/98	DEC
4	RECORD SET	12/12/06	WDS



- LEGEND**
- x - x - CHAIN LINK FENCE
 - TOS TOP OF SLAB
 - N.10300.00
E.10035.00 PROPOSED CONTROL POINT - SEE DETAIL
 - 10278.3863,10239.0978
CONTROL POINT - EL 53.00 EXISTING CONTROL POINT - SEE DETAIL



RECORD SET



A.V.SCHWAN & ASSOC., Inc.
CONSULTING
STRUCTURAL ENGINEERS
5007252AEE, ARIZONA
(602) 258-4331

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SITE REFERENCE PLAN

CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
TELEPHONE (602)258-6155

DRW. BY: BDB	DATE 05/05/94	CADD NO: 50902059
DSG. BY: RNS	DATE 05/24/94	PROJECT NO: 13-50919.00
CHK. BY:	DATE	DWG. No.
SCALE: 1" = 20'		581-YDA-101

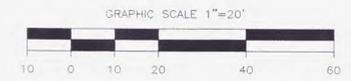
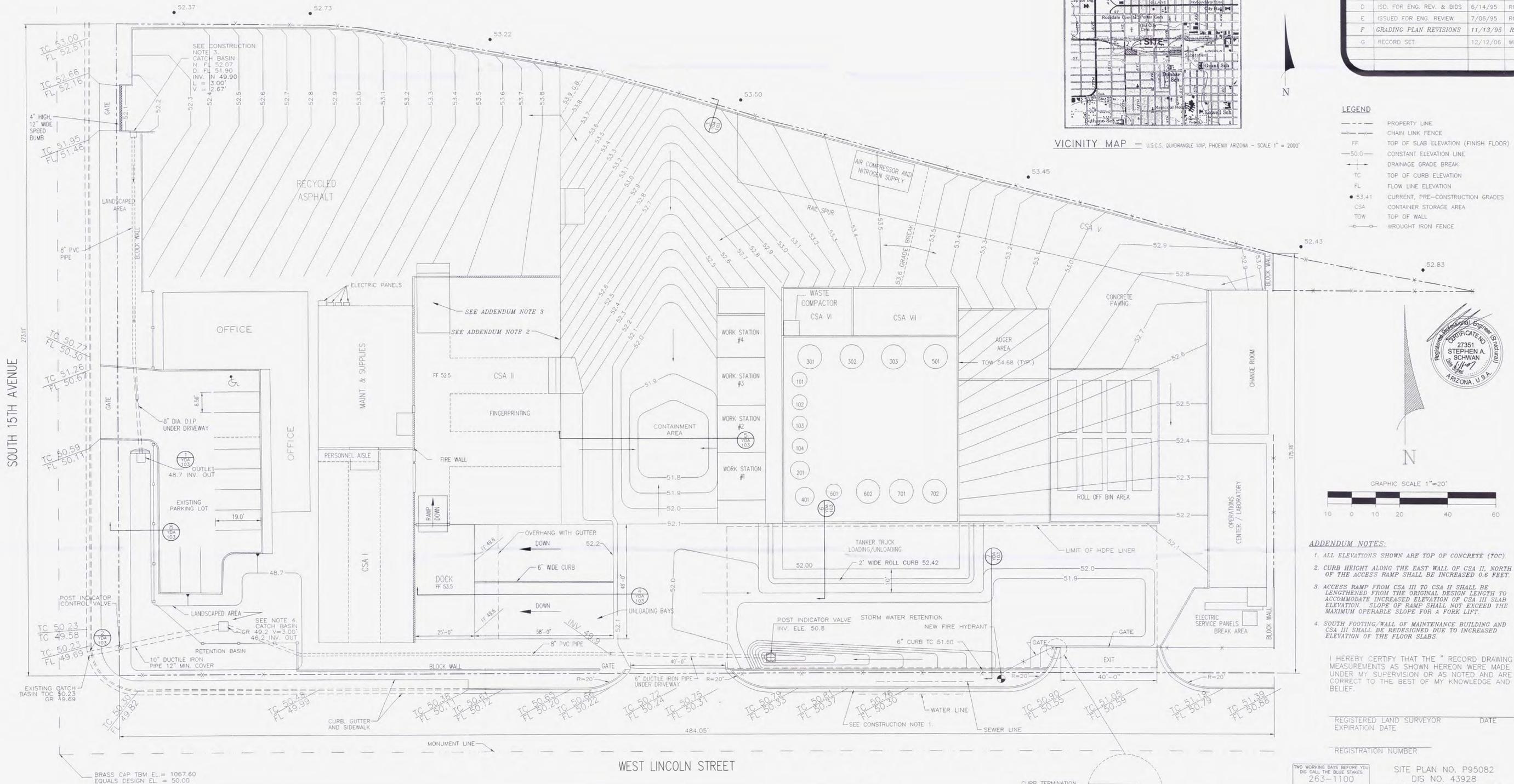
NO.	REVISION	DATE	BY
A	ISSUED FOR APPROVAL	4/24/95	RNS
B	ISSUED FOR APPROVAL	5/01/95	RNS
C	ISSUED FOR ENG. REVIEW	5/17/95	RNS
D	ISS. FOR ENG. REV. & BIDS	6/14/95	RNS
E	ISSUED FOR ENG. REVIEW	7/06/95	RNS
F	GRADING PLAN REVISIONS	11/13/95	RNS
G	RECORD SET	12/12/06	WDS



LEGEND

- PROPERTY LINE
- - - CHAIN LINK FENCE
- FF TOP OF SLAB ELEVATION (FINISH FLOOR)
- 50.0— CONSTANT ELEVATION LINE
- - - DRAINAGE GRADE BREAK
- TC TOP OF CURB ELEVATION
- FL FLOW LINE ELEVATION
- 53.41 CURRENT, PRE-CONSTRUCTION GRADES
- CSA CONTAINER STORAGE AREA
- TOW TOP OF WALL
- WROUGHT IRON FENCE

VICINITY MAP — U.S.G.S. QUADRANGLE MAP, PHOENIX, ARIZONA — SCALE 1" = 2000'



- ADDENDUM NOTES:**
- ALL ELEVATIONS SHOWN ARE TOP OF CONCRETE (TOC).
 - CURB HEIGHT ALONG THE EAST WALL OF CSA II, NORTH OF THE ACCESS RAMP SHALL BE INCREASED 0.6 FEET.
 - ACCESS RAMP FROM CSA III TO CSA II SHALL BE LENGTHENED FROM THE ORIGINAL DESIGN LENGTH TO ACCOMMODATE INCREASED ELEVATION OF CSA III SLAB ELEVATION. SLOPE OF RAMP SHALL NOT EXCEED THE MAXIMUM OPERABLE SLOPE FOR A FORK LIFT.
 - SOUTH FOOTING/WALL OF MAINTENANCE BUILDING AND CSA III SHALL BE REDESIGNED DUE TO INCREASED ELEVATION OF THE FLOOR SLABS.

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR DATE
EXPIRATION DATE
REGISTRATION NUMBER

TWO WORKING DAYS BEFORE YOU DIG: CALL THE BLUE STAKES. 263-1100. BLUE STAKE CENTER CALL COLLECT. SITE PLAN NO. P95082. DIS NO. 43928. QUARTER SECTION QS9-26.

- STD. LOCAL IMPROVEMENT NOTES:**
- CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST APPLICABLE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARDS AND SPECIFICATIONS AND THE LATEST CITY OF PHOENIX SUPPLEMENTALS TO THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS.
 - PLAN APPROVAL IS VALID FOR TWELVE (12) MONTHS. IF APPROVAL EXPIRES, THE PLANS MUST BE RESUBMITTED FOR CITY UPDATE REVIEW AND APPROVAL.
 - OBSTRUCTIONS TO PROPOSED IMPROVEMENTS IN THE RIGHT-OF-WAY SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
 - TREES AND SHRUBBERY IN THE RIGHT-OF-WAY THAT CONFLICT WITH PROPOSED IMPROVEMENTS SHALL NOT BE REMOVED WITHOUT APPROVAL OF THE CITY LANDSCAPE ARCHITECT OR HIS ASSIGNEE. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING AUTHORIZATION TO REMOVE AND/OR RELOCATE SAID TREES OR SHRUBBERY BY CALLING THE DEVELOPMENT SERVICES LANDSCAPE ARCHITECT AT (602)256-4116.
 - DAMAGED AND/OR DISPLACED CONCRETE CURB, GUTTER, SIDEWALK, OR DRIVEWAY SLAB THAT IS WITHIN THE RIGHT-OF-WAY SHALL BE REPAIRED OR REPLACED BEFORE FINAL ACCEPTANCE OF THE WORK.
 - DEVELOPMENT SERVICES DEPARTMENT'S FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY OFFSITE CONSTRUCTION BEGINS. TELEPHONE: (602)262-8921.

- GRADING AND DRAINAGE NOTES:**
- A GRADING PERMIT IS REQUIRED UNDER CHAPTER 32A OF THE PHOENIX CITY CODE.
 - HAUL PERMITS, WHEN REQUIRED, MUST BE OBTAINED PRIOR TO OR CONCURRENTLY WITH THE GRADING AND DRAINAGE PERMIT.
 - EXCAVATING CONTRACTOR MUST GIVE LOCATION FOR WASTING EXCAVATION AND A LETTER FROM OWNER GIVING PERMISSION FOR DUMPING PRIOR TO STARTING ONSITE CONSTRUCTION. IF EXCESS EXCAVATION EXCEEDS 100 CUBIC YARDS, THE DUMPING SITE WILL ALSO REQUIRE A GRADING AND DRAINAGE PERMIT.
 - DEVELOPMENT SERVICES DEPARTMENT'S FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY ONSITE OR OFFSITE CONSTRUCTION BEGINS. TELEPHONE: (602)262-7811.
 - MINIMUM FINISH FLOOR ELEVATIONS SHOWN ARE SAFE FROM THE 100 YEAR FLOOD OR PER MINIMUM SPECIFIED IN THE CITY OF PHOENIX STORM DRAIN DESIGN MANUAL, WHICHEVER IS GREATER.
 - STAKING FINISH FLOOR ELEVATIONS IS THE RESPONSIBILITY OF THE OWNER AND HIS ENGINEER. THE OWNER'S ENGINEER SHALL SUBMIT ONE SEALED COPY OF THIS GRADING AND DRAINAGE PLAN DESIGNATED AS "RECORD DRAWING" (BEARING AN ORIGINAL SIGNATURE), PRIOR TO THE OFFICE FOR FINAL INSPECTION. CERTIFICATION SHALL BE PROVIDED BY VIROGROUP, INC., 5301 OFFICE PARK DRIVE, SUITE 420, BAKERSFIELD, CA 93309, (805) 322-8996.
 - A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
 - AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.

- DRYWELLS, WHEN REQUIRED, MUST BE DRILLED A MINIMUM OF TEN FEET INTO PERMEABLE POROUS STRATA OR PERCOLATION TESTS WILL BE REQUIRED. THE GRADING AND DRAINAGE INSPECTOR MUST BE PRESENT BEFORE BACKFILL OR WALL PIPES ARE PLACED WITHIN ANY DRYWELLS.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR REGISTERING THE DRYWELLS SHOWN ON PLAN WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (A.D.E.Q.) FOR INFORMATION ABOUT SPECIFIC REQUIREMENTS. CONTACT THE WATER PERMITS UNIT AT (602) 207-2300.
- GRADING AND DRAINAGE PLAN APPROVAL INCLUDES THE CONSTRUCTION OF ALL SURFACE IMPROVEMENTS SHOWN ON THE APPROVED PLAN INCLUDING BUT NOT LIMITED TO: RETENTION AREAS, SEDIMENTATION BASINS AND/OR OTHER DRAINAGE FACILITIES, DRAINAGE PATTERNS, WALLS, CURBS, ASPHALT PAVEMENT AND BUILDING FLOOR ELEVATORS.
- CONTRACTOR SHALL PROVIDE LEVEL BOTTOM IN ALL RETENTION BASINS AT ELEVATIONS SHOWN ON THE PLANS. SLOPE PROTECTION SHALL BE APPLIED TO PREVENT EROSION.
- GRADES SHOWN IN RETENTION BASINS ARE DESIGN FINISHED GRADES. SHOULD THE CONTRACTOR OR ANY SUB-CONTRACTOR PLAN TO PLACE SOIL DIRT FROM FOOTINGS, UTILITY TRENCHES, LANDSCAPING, SWIMMING POOLS, ETC., IN THE BASINS, THEN THE BASINS SHOULD BE SUFFICIENTLY OVER-EXCAVATED DURING THE BROUGH GRADING OPERATION TO ALLOW FOR THE PLACEMENT OF THE FILL OR LANDSCAPING MATERIALS.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFIRMING DEPTHS OF ALL THE EXISTING UTILITY LINES WITHIN PROPOSED RETENTION BASIN AREAS. IF THE BASIN CANNOT BE CONSTRUCTED AS PER PLAN BECAUSE OF CONFLICTS, THE CONTRACTOR SHOULD DISCUSS MODIFICATION OF BASIN CONFIGURATION WITH THE CITY INSPECTOR TO DETERMINE IF A PLAN REVISION OR A FIELD CHANGE IS REQUIRED.
- ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.

- CONSTRUCTION NOTES:**
- INSTALL CURB AND GUTTER PER M.A.D. DETAIL 220 TYPE 'X', SLOPE TO MATCH EXISTING CURB AND GUTTER FLOW LINE.
 - INSTALL SIDEWALK PER C.O.P. DETAIL P1230.
 - INSTALL CATCH BASIN TYPE 'U' PER C.O.P. DETAIL P1569-1.
 - INSTALL CATCH BASIN SINGLE TYPE 'N' PER C.O.P. DETAIL P1570.
 - EXISTING CURB AND GUTTER TO REMAIN.
 - MAX SLOPE @ CATCH BASIN IS 4:1.

LEGAL DESCRIPTIONS

LOTS 6, 8, 10, 12, 14, 16, 18, 20, 22, AND 24 OF BLOCK 5, IRVINE ADDITION AMENDED MAP, BEING A PORTION OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 3 EAST, ACCORDING TO BOOK 1 OF MAPS, PAGE 29 IN THE RECORDS OF THE COUNTY RECORDERS OFFICE, COUNTY OF MARICOPA, STATE OF ARIZONA.

A PORTION OF LOTS 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, AND 23 OF BLOCK 5, IRVINE ADDITION AMENDED MAP, BEING A PORTION OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 3 EAST, ACCORDING TO BOOK 1 OF MAPS, PAGE 29 IN THE RECORDS OF THE COUNTY RECORDERS OFFICE, COUNTY OF MARICOPA, STATE OF ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF LOT 1; THENCE SOUTH 89°59'47" WEST, A DISTANCE OF 16.22 FEET, TO A POINT; THENCE NORTH 77°48'10" WEST, A DISTANCE OF 137.00 FEET, TO A POINT; THENCE NORTH 73°07'46" WEST 91.82 FEET, TO A POINT; THENCE NORTH 74°55'53" WEST A DISTANCE OF 70.66 FEET, TO A POINT; THENCE NORTH 73°08'21" WEST A DISTANCE OF 50.84 FEET, TO A POINT; THENCE NORTH 75°13'54" WEST A DISTANCE OF 30.20 FEET, TO A POINT; THENCE NORTH 79°34'47" WEST A DISTANCE OF 96.17 FEET, TO A POINT; THENCE NORTH 89°47'21" WEST A DISTANCE OF 15.69 FEET, TO A POINT; THENCE NORTH 89°32'04" WEST A DISTANCE OF 86.66 FEET, TO A POINT; THENCE SOUTH 00°01'10" WEST A DISTANCE OF 115.03 FEET, TO A POINT; THENCE NORTH 89°59'47" EAST A DISTANCE OF 565.55 FEET, TO THE TRUE POINT OF BEGINNING.

RECORD SET

AV.SCHWAN & ASSOC., Inc.
CONSULTING STRUCTURAL ENGINEERS
SCOTTSDALE, ARIZONA
(602) 265-4331

CleanHarbors®

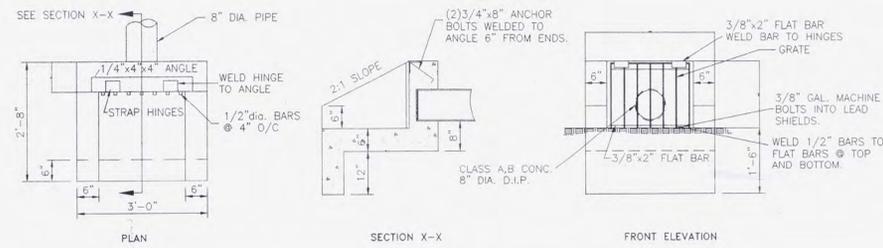
THIS DRAWING IS THE PROPERTY OF CLEAN HARBORS. ANY INFORMATION CONTAINED HEREON SHALL NOT BE COPIED OR USED WITHOUT WRITTEN PERMISSION OF CLEAN HARBORS.

GRADING & DRAINAGE PLAN WITH OFFSITE IMPROVEMENTS

OWNER: CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
TELEPHONE (602)258-6155

DRW. BY: BDB DATE 05/05/94 CAD NO: 50902058
DSG. BY: RNS DATE 05/24/94 PROJECT NO: 13-50919.00
CHK. BY: DATE DWG. NO:
SCALE: 1" = 20' 581-YDA-102

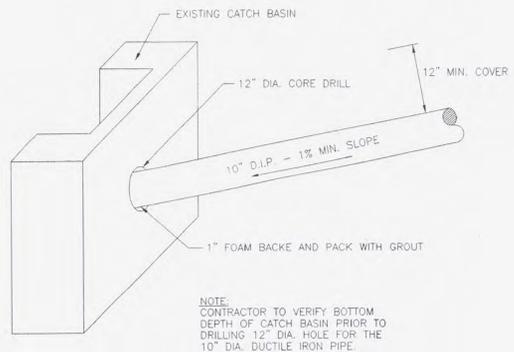
NO.	REVISION	DATE	BY
A	ISSUED FOR ENG. REVIEW	7/06/95	RNS



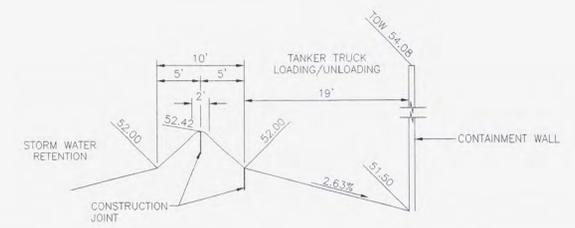
1. OUTLET STRUCTURE DETAIL
SCALE 1" = 2"



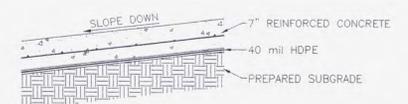
5. CONTAINMENT AREA X-SECTION
SCALE HORIZ. 1" = 10'
VERT. 1" = 1'



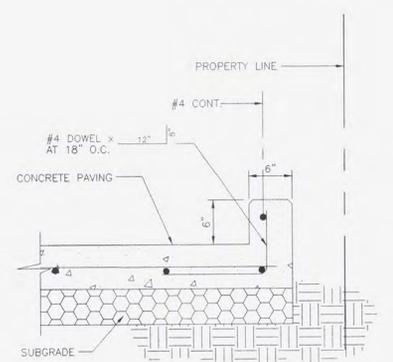
2. CATCH BASIN TIE-IN DETAIL
NOT TO SCALE



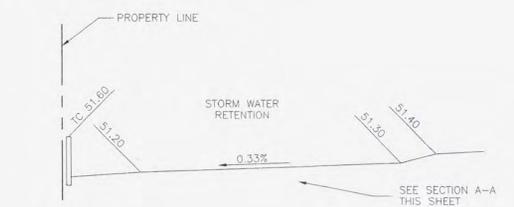
6. TANKER TRUCK LOADING / UNLOADING X-SECTION
SCALE HORIZ. 1" = 10'
VERT. 1" = 1'



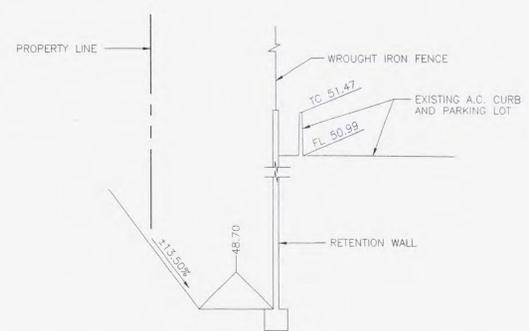
SECTION A-A
NOT TO SCALE



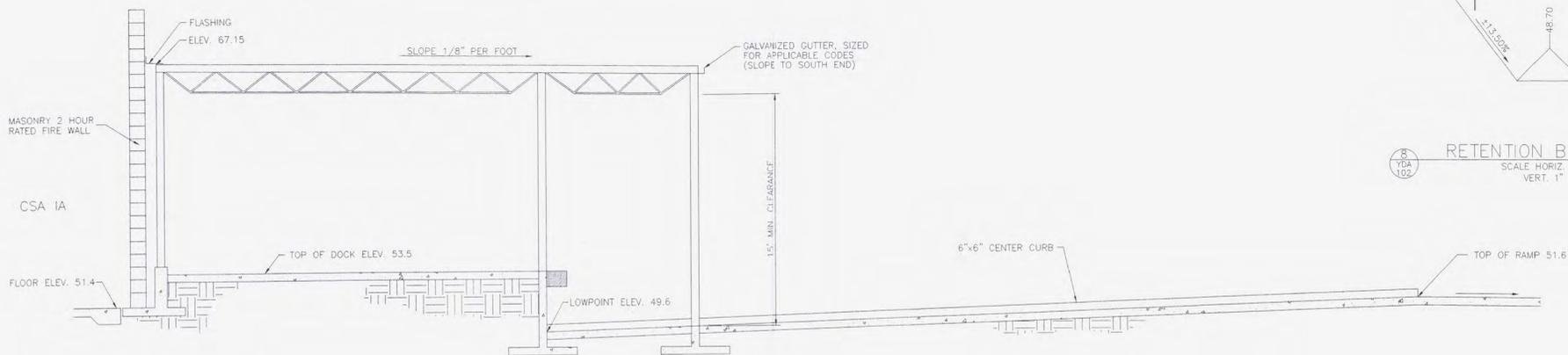
3. TYPICAL EDGE OF PAVEMENT CURB DETAIL
SCALE 1" = 1'



7. STORM WATER RETENTION X-SECTION
SCALE HORIZ. 1" = 10'
VERT. 1" = 1'



8. RETENTION BASIN X-SECTION
SCALE HORIZ. 1" = 10'
VERT. 1" = 1'



4. LOADING / UNLOADING DOCK X-SECTION
SCALE 1" = 5'



RECORD SET



GRADING & DRAINAGE
DETAILS AND X-SECTIONS

OWNER:
CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
TELEPHONE (602)258-6155

DRW. BY: MEN	DATE 07/05/95	CADD NO: 50902066
DSG. BY: RNS	DATE 07/05/95	PROJECT NO: 13-50919.00
CHK. BY:	DATE	DWG. No.
SCALE: AS NOTED		581-YDA-103

GENERAL STRUCTURAL NOTES:

NO.	REVISION	DATE	BY
1	ISSUED FOR CONSTRUCTION	10-11-95	-
2	AS BUILT	7-18-98	GWL
3	AS BUILT	4-24-98	DEC
4	RECORD SET	12/12/06	WDS

I. DESIGN CRITERIA

A. BUILDING CODE:

1. CITY OF PHOENIX 1988 U.B.C., WITH AMENDMENTS

B. LOADINGS:

1. ROOF LIVE LOAD = 20 PSF (ON HORIZONTAL PROJECTION)
2. LIGHT STORAGE LIVE LOAD = 125 PSF
3. WIND LOAD = 15 PSF (ON VERTICAL PROJECTION)
4. SEISMIC CITY OF PHOENIX, Z_s FACTOR = 0.25

C. SOIL BEARING ALLOWABLE:

1. PER SOILS INVESTIGATION REPORT BY "WESTERN TECHNOLOGIES INC.", JOB NO. 2124JG0999, INCLUDING ADDENDUM NO. 1.
2. ALL FOOTINGS ARE TO BE FOUNDED AT NOT LESS THAN 1'-6" BELOW LOWEST ADJACENT FINISH FLOOR OR FINISH GRADE, (LOWER DEPTH GOVERNS), ONTO UNDISTURBED EXISTING SUBSOILS OR ENGINEERED FILL HAVING A MINIMUM BEARING CAPACITY OF 2000 PSF.
3. WHERE FOOTINGS ARE FOUNDED ON COMPACTED FILL THE LIMITS OF COMPACTION AND THE PERCENT OF COMPACTION ARE TO BE PER THE ABOVE REFERENCED SOIL REPORT.

D. FUTURE EXPANSION:

THIS PROJECT IS NOT DESIGNED FOR FUTURE EXPANSION.

II. MATERIALS:

A. CONCRETE:

1. CONCRETE MATERIAL PROPERTIES:

- a. ALL CONCRETE TO BE A MINIMUM OF 2500 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE.
- b. ALL SLABS ON GRADE TO BE 3500 PSI AT 28 DAYS, EXCEPT AT TANK FARM - SEE SHEET S18

2. REINFORCING STEEL:

- a. ALL BARS TO BE ASTM A 615, GRADE 40, DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH ACI 318, LATEST ADOPTION.
- b. ALL BARS #4 AND LARGER TO BE ASTM A 615, GRADE 60. ALL #2 AND #3 BARS TO BE ASTM A 615, GRADE 40, DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH ACI 318, LATEST ADOPTION.
- c. WELDED WIRE FABRIC TO BE IN ACCORDANCE WITH ASTM A 185.
- d. MASONRY WIRE JOINT REINFORCING TO BE ASTM A 82.

3. CURING COMPOUND:

- a. CURING COMPOUND FOR FLATWORK SHALL BE AN ACRYLIC BASED COMPOUND CONFORMING TO ASTM C309, CLEAR, TYPE I.
- b. NO CURING COMPOUND IS TO BE APPLIED TO CONTAINMENT CONCRETE (TANK FARM, CSA IA & IB, CSA II, CSA III, ROLL OFF AREA, FILTER PRESS AREA, EMISSION CONTROL AREA, CONTAINER MANAGEMENT AREA, PAINT AUGER AREA, TANKER UNLOADING AREA, AND WASTE COMPACTOR AREA).

B. MASONRY:

1. LIGHTWEIGHT HOLLOW C.M.U. TO BE ASTM C 90, GRADE N-1 AND HAVE A MINIMUM f'm OF 1350 PSI. MORTAR TO BE TYPE "S". GROUT FILL TO BE 2000 PSI AT 28 DAYS.
2. HOLLOW C.M.U. TO BE ASTM C 90, GRADE N-1 AND HAVE A MINIMUM f'm OF 2500 PSI. MORTAR TO BE 2500 PSI AT 28 DAYS. GROUT FILL TO BE 2500 PSI AT 28 DAYS. SEE CONCRETE FOR REQUIREMENTS FOR REINFORCING.
3. SEE CONCRETE FOR REQUIREMENTS FOR REINFORCING.

C. STRUCTURAL AND MISCELLANEOUS STEEL:

1. MATERIAL PROPERTIES:
 - a. TO BE ASTM A 36 UNLESS NOTED OTHERWISE
 - b. ALL STEEL TO BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.I. SPECIFICATIONS, LATEST ADOPTION.
2. WELDING: FOR STRUCTURAL STEEL TO BE IN ACCORDANCE WITH A.W.S. REQUIREMENTS FOR E70XX ELECTRODES.
3. BOLTS:
 - a. ANCHOR BOLTS SHALL BE ASTM A 307 OR A 36
 - b. EXPANSION BOLTS ARE 3/4" DIAMETER RAMSET "TRUBOLTS" OR "MULTISET II" INSTALLED IN ACCORDANCE WITH ISO #1372. MINIMUM EMBEDMENT TO BE 3 1/2" IN CONCRETE AND 5" IN SOLID GROUTED MASONRY. ALL CONCRETE OR MASONRY SHALL BE AT ITS SPECIFIED DESIGN STRENGTH AT THE TIME OF INSTALLATION.

4. HEADED STUD SHEAR CONNECTORS: TO BE ASTM A 108.
5. STEEL JOISTS:
 - a. TO BE STANDARD "K" ALL IN ACCORDANCE WITH S.J.I. SPECIFICATIONS AND U.B.C. STANDARD 27-4.
 - b. PROVIDE BRIDGING AS REQUIRED BY JOIST MANUFACTURER AND S.J.I. SPECIFICATIONS.
 - c. JOIST MANUFACTURER SHALL REVIEW THE DESIGN OF THE JOIST AT THE LOADING DOCK AND WORK STATIONS FOR A NET UPLIFT OF 20 PSF AND PROVIDE ADDITIONAL BRIDGING AND/OR BRACING AS REQUIRED.

6. METAL ROOF DECK:
 - a. TO BE GALVANIZED AND OF THE TYPE AND GAUGES CALLED FOR ON THE DRAWINGS, MANUFACTURED AND ERECTED PER S.D.I.
 - b. STEEL DECK INSTITUTE SPECIFICATIONS AND RECOMMENDATIONS APPLY EXCEPT AS OTHERWISE NOTED. DECK SHALL BE 1 3/8" MINIMUM 26 GAGE, INVERTED "CP-32" GALVANIZED METAL DECK BY ASC PACIFIC OR EQUAL.
 - c. ALL METAL DECK IS TO BE FASTENED WITH #12 TEK'S WITH NEOPRENE WASHERS AT EVERY OTHER FLUTE AND AT 12" O.C. AT PERIMETER AND AT SIDE SEAM LAPS - TYPICAL AT CANOPY AND WORKSTATIONS.

7. METAL DECK FORM:
 - a. FOR CONCRETE FLOOR FILL TO BE STANDARD 9/16" GALVANIZED CORRUGATED FORM, 28 GAUGE, WELDED WITH WELD WASHERS PER DRAWINGS.

- b. STEEL DECK INSTITUTE SPECIFICATIONS AND RECOMMENDATIONS APPLY EXCEPT AS OTHERWISE NOTED.
- c. ALL METAL DECK IS TO BE WELDED WITH E6022 ELECTRODES UNLESS OTHER ELECTRODES ARE SPECIFICALLY APPROVED BY THIS ENGINEER. ALL WELDERS ARE TO HAVE "LIGHT-GAGE" CERTIFICATION PER A.W.S. REQUIREMENTS.

8. LIGHT GAUGE METAL FRAMING:

- a. SHALL BE DESIGNED, DETAILED AND FABRICATED IN ACCORDANCE WITH A.I.S.I. SPECIFICATION FOR THE DESIGN OF LIGHT GAUGE COLD-FORMED STEEL STRUCTURAL MEMBERS.
- b. STEEL CHANNELS AND ZEE SECTIONS TO BE HIGH TENSILE, COLD-FORMED, STIFFENED EDGE SECTIONS DESIGNED IN ACCORDANCE WITH A.I.S.I. SPECIFICATION. STEEL SHALL MEET THE PHYSICAL REQUIREMENTS OF ASTM A 441.
- c. EXTERIOR WALLS AND PARAPETS SPECIFIED AS METAL STUDS TO BE COLD-ROLLED SECTIONS AND SHALL BE DESIGNED, DETAILED AND FABRICATED IN ACCORDANCE WITH A.I.S.I. SPECIFICATION FOR THE DESIGN OF LIGHT GAUGE COLD-FORMED STEEL STRUCTURAL MEMBERS.
- d. MATERIALS:
 - (1) ALL FRAMING MEMBERS SHALL BE OF THE TYPE AND SIZE AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS AND SHALL BE MANUFACTURED BY AMERICAN STUDIO OR EQUAL, PER I.C.B.O. REPORT NO. 4943P.
 - (2) ALL 14 AND 16 GAUGE STUDS AND JOISTS SHALL BE FORMED FROM STANDARD COMMERCIAL STEEL WITH A MINIMUM YIELD POINT OF 33 KSI.
 - (3) ALL 14 AND 16 GAUGE TRACK AND BENT SHAPES, 18 AND 20 GAUGE STUDS SHALL BE FORMED FROM STANDARD COMMERCIAL STEEL WITH A MINIMUM YIELD POINT OF 33 KSI.
 - (4) ALL STRUCTURAL COMPONENTS SHALL BE GIVEN A COAT OF RUST RESISTING PAINT. FIELD ABRASIONS AND WELDS SHALL BE TOUCHED UP IN THE FIELD AFTER ERECTION.

III. EXECUTION:

A. GENERAL:

1. STRUCTURAL NOTES SHALL BE USED ALONG WITH THE SPECIFICATIONS. WHERE THE STRUCTURAL NOTES, DRAWINGS OR SPECIFICATIONS DISAGREE, THE CONTRACTOR MAY REQUEST A CLARIFICATION DURING THE BIDDING PERIOD. OTHERWISE THE MORE STRINGENT REQUIREMENTS SHALL CONTROL.
2. PROVIDE ALL TEMPORARY BRACING, SHORING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL AND PLUMBING WITH THE APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
3. STRUCTURAL DETAILS: DETAILS ARE APPLICABLE WHERE INDICATED BY SECTION CUT, BY NOTE OR BY DETAIL TITLE. PROVIDE SIMILAR DETAILS AT SIMILAR CONDITIONS UNLESS NOTED OTHERWISE. THE CONTRACTOR MAY REQUEST A CLARIFICATION DURING THE BIDDING PERIOD OTHERWISE THE MORE STRINGENT REQUIREMENTS SHALL CONTROL.
4. EXISTING CONDITIONS: CONTRACTOR SHALL VERIFY IN THE FIELD ALL DIMENSIONS AND CONDITIONS OF THE EXISTING STRUCTURE PRIOR TO BEGINNING ANY PERTINENT WORK. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS.
5. DEMOLITION:
 - a. CONTRACTOR SHALL VERIFY IN THE FIELD ALL EXISTING CONDITIONS. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO CONTINUING ANY WORK.
 - b. CONTRACTOR SHALL EXERCISE EXTREME CARE DURING DEMOLITION TO AVOID DAMAGING THOSE PORTIONS OF THE STRUCTURE TO REMAIN. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY OF ANY DAMAGE TO THE STRUCTURE TO REMAIN.
 - c. ALL METHODS USED SHALL BE CAREFULLY PLANNED AND SHALL BE APPROPRIATE TO THE WORK TO BE DONE. THE EXISTING STRUCTURE TO REMAIN SHALL NOT BE SUBJECTED TO ANY SUDDEN OR EXCESSIVE FORCES WHICH MIGHT ADVERSELY AFFECT THE INTEGRITY OF THE STRUCTURE.
 - d. WHERE EXISTING CONCRETE OR MASONRY IS TO BE REMOVED SAWCUT BETWEEN THE STRUCTURE TO REMAIN AND THAT TO BE REMOVED UNLESS NOTED OTHERWISE.

B. CAST IN PLACE CONCRETE:

1. SPACING OF CONSTRUCTION JOINTS OR CONTROL JOINTS IN WALLS EXPOSED TO VIEW SHALL NOT EXCEED 40 FEET UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
2. SPACING OF CONSTRUCTION JOINTS IN SITE PAVING SHALL NOT EXCEED 50 FEET AND CONTROL JOINTS SHALL NOT EXCEED 20 FEET UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. THE CONTRACTOR MAY VARY FROM THE JOINT LAYOUT SHOWN, SUBMIT A JOINT LAYOUT PLAN FOR APPROVAL BY THE ENGINEER.
3. PROVIDE EXTRA REINFORCING AROUND ALL OPENINGS EXCEEDING 24 INCHES SQUARE OR ROUND IN ALL SLABS AND WALLS EQUAL TO TWO #5 BARS ON FOUR SIDES AND EXTEND TWO FEET BEYOND THE OPENING.
4. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED CORNERS OF CONCRETE UNLESS NOTED OTHERWISE.
5. PROVIDE CLASS C LAP SPLICES FOR ALL REINFORCING UNLESS NOTED OTHERWISE.
6. PROVIDE ISOLATION JOINTS AROUND ALL COLUMNS AT ALL EXPOSED SLAB ON GRADE AREAS.
7. CURING
 - a. PROTECT FRESHLY DEPOSITED CONCRETE FROM PREMATURE DRYING AND MAINTAIN WITHOUT DRYING AT A RELATIVELY CONSTANT TEMPERATURE FOR THE PERIOD OF TIME NECESSARY FOR THE HYDRATION OF THE CEMENT AND THE PROPER HARDENING OF CONCRETE.

- b. CURING SHALL IMMEDIATELY FOLLOW THE FINISHING OPERATION. FOR ALL AREAS EXCEPT FOR THOSE NOTED IN ITEM "C", THE CONTRACTOR SHALL APPLY CURING COMPOUND WITH A SHEEPSKIN ROLLER AT A RATE OF 7 GALLON MINIMUM PER 200 SQUARE FEET. HYDRO-SPRAY METHOD OF APPLICATION IS ACCEPTABLE.

- c. SLABS ON GRADE IN CSA IA & CSA IB, CSA II, CSA III AND AT TANK FARM SHALL BE CURED BY MOISTURE RETENTION, IMMEDIATELY FOLLOWING THE FINISHING OPERATION, COVER CONCRETE WITH 4-MIL POLYETHYLENE FILM (LAP EDGES 6" & SEAL WITH TAPE OR MASTIC, OR BY WEIGHTING DOWN WITH WOOD PLANKS OR SAND, THE CONCRETE SHOULD REMAIN UNDERCOVER FOR AT LEAST SEVEN (7) DAYS.
- d. PREVENT RAPID DRYING OF CONCRETE AT THE END OF THE CURING PERIOD.
- e. DURING THE CURING PERIOD PROTECT THE CONCRETE FROM DAMAGING MECHANICAL DISTURBANCES, PARTICULARLY LOAD STRESSED, HEAVY STOCK AND EXCESSIVE CONSTRUCTION EQUIPMENT, MATERIALS OR METHODS. NO TRAFFIC OTHER "MAN" WILL BE PERMITTED ON THE SLAB FOR A MINIMUM OF 72 HOURS AFTER FINISHING.

8. CONCRETE TESTING

- a. MAKE TEST FOR 7 DAY AND 28 DAY STRENGTH. MAKE A TEST (4 CYLINDERS) FOR EACH 40 CUBIC YARDS OF EACH CLASS OF CONCRETE WHEN PLACED IN LARGE CONTINUOUS POURS, OR AT LEAST ONE TEST (4 CYLINDERS) FOR POURS LESS THAN 40 CUBIC YARDS OF EACH CLASS OF CONCRETE.
- b. SECURE COMPOSITE SAMPLES FROM THE SAME BATCH IN ACCORDANCE WITH ASTM C-172. MOLD SPECIMENS FROM EACH SAMPLE IN ACCORDANCE WITH ASTM C-31, AND CURE IN ACCORDANCE WITH ASTM C-31.
- c. TEST CYLINDERS IN ACCORDANCE WITH ASTM C-39, BREAKING ONE CYLINDER AT 7 DAYS, 1 AT 28 DAYS, AND HOLDING 2 IN RESERVE. REPORT ALL TEST RESULTS TO ENGINEER ON SAME DAY TESTS ARE MADE.

C. MASONRY REINFORCING:

1. ALL 8" C.M.U. WALLS ARE TO HAVE #5 VERTICALS AT 48" O.C. WITH #5 VERTICALS AT ALL CORNERS, ENDS, JAMBS, INTERSECTIONS AND BOTH SIDES OF CONTROL JOINTS, TYPICAL UNLESS NOTED OTHERWISE.
2. 12" C.M.U. WALLS ARE TO HAVE #5 VERTICALS AT 16" O.C. WITH #5 VERTICALS AT ALL CORNERS, ENDS, JAMBS, INTERSECTIONS AND BOTH SIDES OF CONTROL JOINTS, TYPICAL UNLESS NOTED OTHERWISE.
3. HORIZONTAL JOINT REINFORCING IS TO BE STANDARD JOINT REINFORCING AT 16" O.C. (MINIMUM 2-#9 GAGE WIRES).
4. ADDITIONAL VERTICAL REINFORCING SHOWN ON PLAN IS IN LIEU OF TYPICAL REINFORCING. PLACE ONE BAR PER CELL IN SOLID GROUT. EXTEND BARS A MINIMUM OF 30 BAR DIAMETERS BEYOND THE FLOOR OR ROOF LEVEL ABOVE.
5. WALLS ARE TO HAVE 2 #5 BARS CONTINUOUS IN A MINIMUM 8" DEEP BOND BEAM AT TOP UNLESS NOTED OTHERWISE.
6. PROVIDE A MINIMUM OF 2 #4 BARS X (THE WIDTH OF THE OPENING PLUS 4"-0") IN A MINIMUM 8" DEEP BOND BEAM BELOW ALL WINDOW AND MECHANICAL OPENINGS UNLESS NOTED OTHERWISE.
7. BOND BEAM REINFORCING IS TO BE CONTINUOUS THROUGH CONTROL JOINTS, DISCONTINUE TYPICAL JOINT REINFORCING.
8. REINFORCEMENT LAPS SHALL BE A MINIMUM OF 48 TIMES THE DIAMETER OF THE SMALLER OF THE TWO BARS UNLESS NOTED OTHERWISE. WHERE BARS ARE OFFSET THE MINIMUM LAP SHALL BE 48 BAR DIAMETERS PLUS THE DISTANCE OFFSET.

D. MASONRY LINTELS:

1. ALL REINFORCING IS TO EXTEND A MINIMUM OF 2'-0" BEYOND THE JAMB AND TO BE GROUTED SOLID FOR THE ENTIRE DEPTH INDICATED.
2. ALL CONCRETE MASONRY UNITS USED IN THE LENGTH ARE TO BE "OPEN-END" TYPE, TO INSURE FULLY GROUTED HEAD JOINTS.
3. ALL LINTELS ARE TO BE PROPERLY SHORED FOR THEIR WEIGHT PLUS ANY CONSTRUCTION LOADS AND LATERALLY BRACED TO PREVENT ANY LATERAL MOVEMENT FOR A MINIMUM OF 7 DAYS AFTER GROUTING, UNLESS NOTED OTHERWISE.

E. MASONRY GROUTING PROCEDURES:

1. GROUTED MASONRY SHALL BE CONSTRUCTED IN SUCH A MANNER THAT ALL ELEMENTS OF THE MASONRY ACT TOGETHER AS A STRUCTURAL ELEMENT.
2. PRIOR TO GROUTING, THE GROUT SPACE SHALL BE CLEANED SO THAT ALL SPACES TO BE FILLED WITH GROUT DO NOT CONTAIN MORTAR PROJECTIONS GREATER THAN 1/2", MORTAR DROPPINGS OR OTHER FOREIGN MATERIAL.
3. GROUT MATERIALS AND WATER CONTENT SHALL BE CONTROLLED TO PROVIDE ADEQUATE FLUIDITY FOR PLACEMENT, WITHOUT SEGREGATION OF THE CONSTITUENTS AND SHALL BE MIXED THOROUGHLY. SEGREGATION OF THE GROUT MATERIALS AND DAMAGE TO THE MASONRY SHALL BE AVOIDED DURING THE GROUTING PROCESS.
4. THE GROUTING OF ANY SECTION OF WALL SHALL BE COMPLETED IN ONE DAY WITH NO INTERRUPTIONS GREATER THAN ONE HOUR.
5. BETWEEN GROUT POURS, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING ALL WYTHES AT THE SAME ELEVATION AND WITH THE GROUT STOPPING A MINIMUM OF 1 1/2 INCHES BELOW A MORTAR JOINT, EXCEPT AT THE TOP OF THE WALL, WHERE BOND BEAMS OCCUR, STOP GROUT POUR A MINIMUM OF 1/2 INCH BELOW THE TOP OF THE MASONRY.
6. ALL CELLS AND SPACES CONTAINING REINFORCING BARS SHALL BE FILLED WITH GROUT. GROUT SHALL BE PLACED SO THAT ALL SPACES TO BE GROUTED DO NOT CONTAIN VOIDS.

7. GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION DURING PLACING BEFORE LOSS OF PLASTICITY IN A MANNER TO FILL THE GROUT SPACE. GROUT POURS GREATER THAN 12 INCHES SHALL BE RECONSOLIDATED BY MECHANICAL VIBRATION TO MINIMIZE VOIDS DUE TO WATER LOSS. GROUT POURS 12 INCHES OR LESS IN HEIGHT SHALL BE MECHANICALLY VIBRATED, OR PUDDLED.

8. WHERE GROUT POURS EXCEED 5 FEET, CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM COURSE AT EVERY VERTICAL BAR LOCATION BUT SHALL NOT BE SPACED MORE THAN 32 INCHES ON CENTER FOR SOLID GROUTED MASONRY. GROUT SHALL BE PLACED IN A CONTINUOUS POUR NOT TO EXCEED 16 FEET IN HEIGHT, AND IN GROUT LIFTS NOT TO EXCEED 6 FEET.

9. REINFORCING SHALL BE CONTINUOUS THE FULL HEIGHT OF THE GROUT POUR PLUS ANY REQUIRED LAP ABOVE. REINFORCEMENT SHALL BE SECURED AGAINST DISPLACEMENT PRIOR TO GROUTING BY WIRE POSITIONERS OR OTHER SUITABLE DEVICES AT INTERVALS NOT TO EXCEED 200 BAR DIAMETERS NOR 10 FEET.
10. TOLERANCE FOR THE PLACEMENT OF STEEL IN WALLS AND FLEXURAL ELEMENTS SHALL BE PLUS OR MINUS 1/2 INCH FOR "d" EQUAL TO 8 INCHES OR LESS, PLUS OR MINUS ONE INCH FOR "d" EQUAL TO 24 INCHES OR LESS BUT GREATER THAN 8 INCHES, AND PLUS OR MINUS 1 1/4 INCH FOR "d" GREATER THAN 24 INCHES.

F. STRUCTURAL STEEL FRAMING:

THE STEEL FRAMING IS A "NON-SELF-SUPPORTING STEEL FRAME". THE ERECTOR SHALL COMPLY WITH THE PROVISIONS OF THE AISC CODE OF STANDARD PRACTICE. ALL GUYS AND TEMPORARY SUPPORTS SHALL REMAIN IN PLACE UNTIL ALL MASONRY WALLS AND THE CONNECTIONS OF THE STEEL TO THE MASONRY WALLS ARE COMPLETE.

G. METAL BUILDING NOTES:

1. DESIGN LIVE, SEISMIC AND WIND LOADS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS PREVIOUSLY SET FORTH IN THE GENERAL NOTES. WIND LOADS SHALL BE ESTABLISHED BASED ON U.B.C. REQUIREMENTS FOR AN ENCLOSED STRUCTURE.
2. DESIGN DEAD LOADS SHALL INCLUDE THE SELF WEIGHT OF THE STRUCTURE AS WELL AS THE LOADS IMPOSED BY THE MECHANICAL AND ELECTRICAL MEMS.
3. ALL STRUCTURAL STEEL SECTIONS AND WELDED PLATE MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
4. ALL LIGHT GAGE, COLD-FORMED STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.
5. METAL ROOF DECK USED AS A STRUCTURAL DIAPHRAGM FOR PURPOSES OF RESISTING AND DISTRIBUTING LATERAL WIND OR SEISMIC LOADS SHALL BE I.C.B.O. APPROVED FOR SUCH USE AND POSSESS A CURRENT I.C.B.O. EVALUATION NUMBER. SAID REPORT SHALL BE SUBMITTED WITH THE CALCULATIONS.
6. ALL FRAMING MEMBERS SHALL BE SHOP FABRICATED FOR BOLTED FIELD ASSEMBLY AND PAINTED OR OTHERWISE FINISHED IN ACCORDANCE WITH THE SPECIFICATIONS.
7. ALL SHOP CONNECTIONS SHALL BE WELDED USING SUBMERGED ARC, GAS METAL ARC OR SHIELDED ARC PROCESS, AND WELDING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE".
8. ROOF DECK FASTENERS SHALL BE #12 SELF-DRILLING CARBON STEEL SCREWS. A SEALING WASHER SHALL BE PROVIDED. MINIMUM LENGTH OF FASTENERS SHALL BE 1-1/4" FOR PANEL TO STRUCTURE CONNECTIONS AND 3/4" FOR STITCH SCREWS. CONNECTORS SHALL BE COMPATIBLE WITH ROOF DECK MATERIAL.

9. COMPLETE METAL BUILDING DRAWINGS AND CALCULATIONS SHALL BE PROVIDED TO THE ENGINEER OF RECORD FOR HIS REVIEW. METAL BUILDING DRAWINGS AND CALCULATIONS SHALL BEAR THE SEAL OF A STRUCTURAL ENGINEER LICENSED IN THE STATE OF ARIZONA. CALCULATIONS SHALL INCLUDE A SECTION WHICH CLEARLY SUMMARIZES ALL HORIZONTAL AND VERTICAL FOUNDATION LOADS. LOADS SHALL BE BROKEN INTO DEAD, LIVE AND LATERAL LOAD CATEGORIES.

10. FOOTING SIZES AND ANCHOR BOLT DETAILS ARE BASED ON PRELIMINARY DATA PROVIDED BY VARCO-PRUDEN, INC. OTHER MANUFACTURERS ARE ACCEPTABLE. CONTRACTOR TO COORDINATE ANY CHANGES WHICH DEViate FROM THOSE SHOWN ON THE DRAWINGS, WITH THE APPROVED SHOP DRAWING DETAILS.

G. SPECIAL INSPECTION:

- SPECIAL INSPECTION IS REQUIRED IN ACCORDANCE WITH U.B.C. SECTION 306 FOR THE FOLLOWING ITEMS:
1. REINFORCING STEEL
 2. STRUCTURAL MASONRY
 3. POST-TENSIONED CONCRETE
 4. POST-TENSIONING

G.C. NOTE



RECORD SET

A.V.SCHWAN & ASSOC., Inc.
CONSULTING
STRUCTURAL ENGINEERS
SCOTTSDALE, ARIZONA
(602) 265-4331

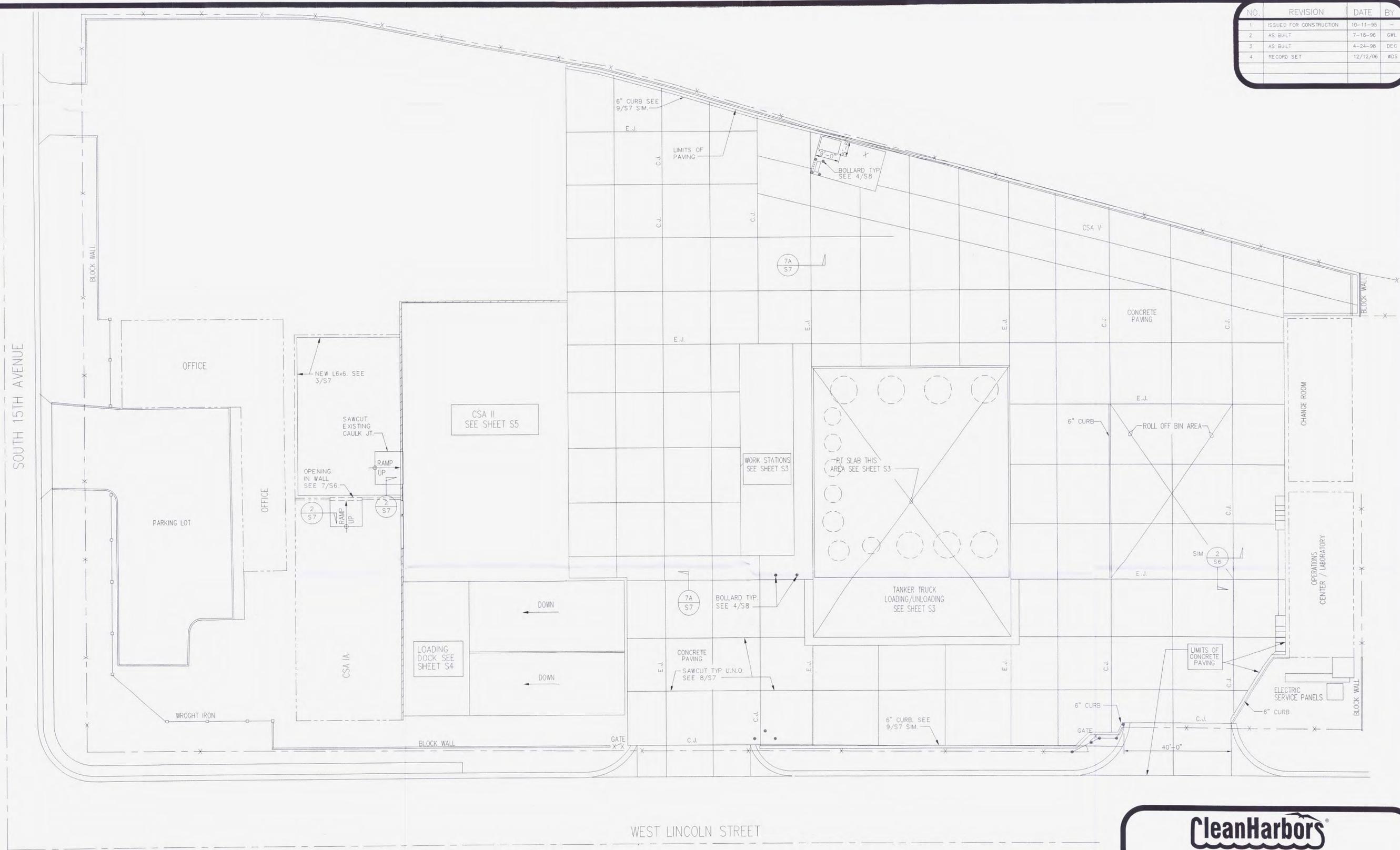


GENERAL STRUCTURAL NOTES

CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
TELEPHONE (602) 258-6155

DRW. BY: RJG	DATE: 6-15-95	PROJECT NO.: 3821
DSG. BY: EAP	DATE: 6-15-95	SHEET NO.: 51
APP. BY: AVS	DATE: 6-15-95	DWG. NO.:
SCALE: -		581-CDA-101

NO.	REVISION	DATE	BY
1	ISSUED FOR CONSTRUCTION	10-11-95	-
2	AS BUILT	7-18-96	GWL
3	AS BUILT	4-24-98	DEC
4	RECORD SET	12/12/06	WDS



- NOTES:
- SEE SITE GRADING PLAN FOR PAVEMENT ELEVATIONS
 - SEE SHEET S7 FOR CONTROL JOINT, CONSTRUCTION JOINT AND EXPANSION JOINT DETAILS

SITE PLAN

1/16"=1'-0"



RECORD SET

A.V.SCHWAN & ASSOC., Inc.
 CONSULTING
 STRUCTURAL ENGINEERS
 SCOTTSDALE, ARIZONA
 (602) 265-4331

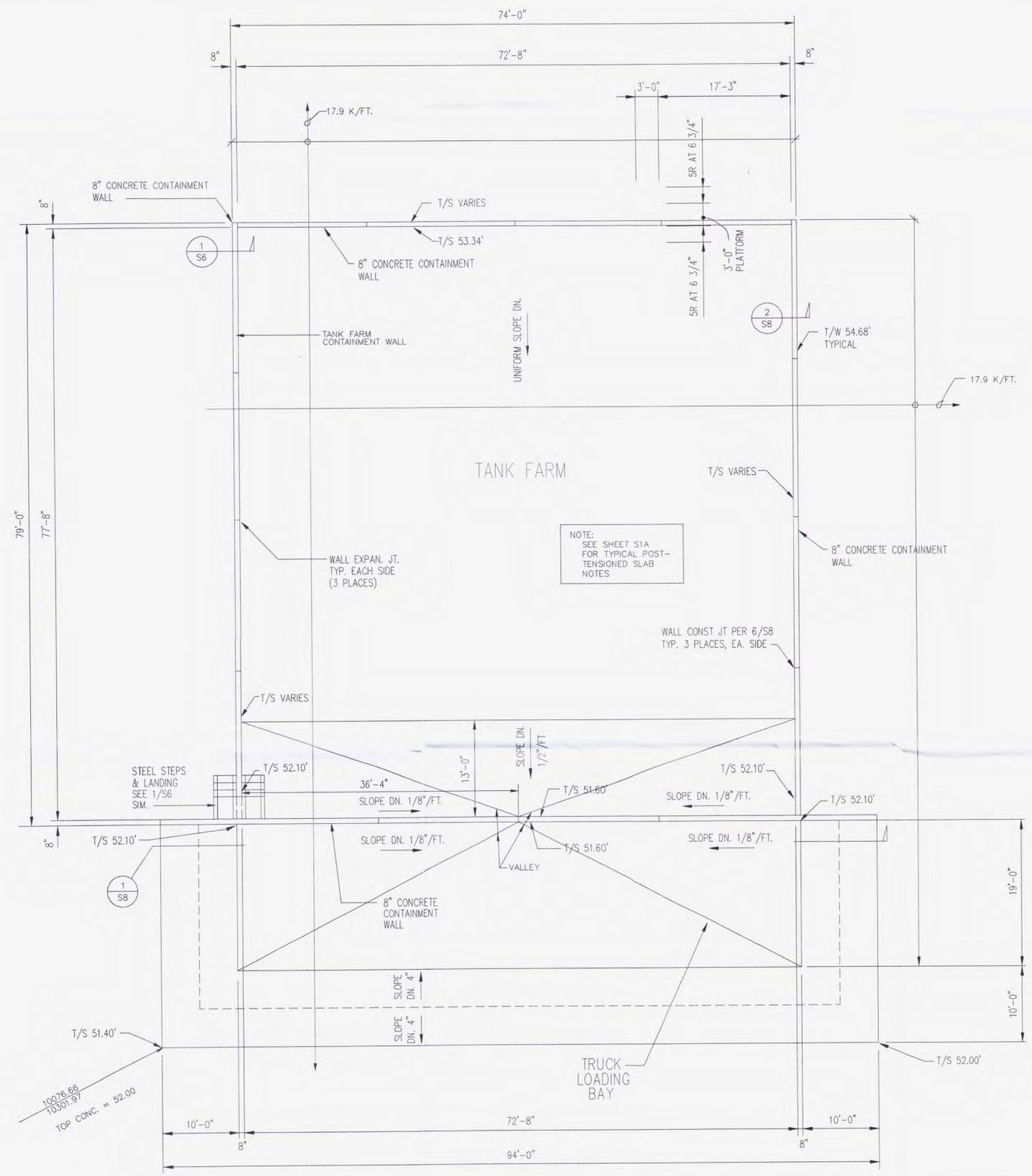


SITE PLAN

CLEAN HARBORS ENVIRONMENTAL SERVICES
 1340 WEST LINCOLN STREET
 PHOENIX, ARIZONA, 80057
 TELEPHONE: (602)258-6155

DRW. BY: RJC	DATE: 6-15-95	PROJECT NO.: 3821
DSG. BY: EAP	DATE: 6-15-95	SHEET NO.: S2
APP. BY: AVS	DATE: 6-15-95	DWG. NO.:
SCALE: AS NOTED		581-CDA-103

NO.	REVISION	DATE	BY
1	ISSUED FOR CONSTRUCTION	10-11-95	-
2	AS-BUILT	7-18-96	GWL
3	AS-BUILT	4-24-98	DEC
4	RECORD SET	12/28/06	WDS



NOTE:
SEE SHEET S1A
FOR TYPICAL POST-
TENSIONED SLAB
NOTES

FOUNDATION PLAN NOTES:
NOTES SHEET S4 APPLY

FOUNDATION PLAN

1/8"=1'-0"

RECORD SET



A.V.SCHWAN & ASSOC., Inc.
CONSULTING
STRUCTURAL ENGINEERS
SCOTTSDALE, ARIZONA
(602) 265-4331

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FOUNDATION PLAN AT PT SLAB

CLEAN HARBORS ENVIRONMENTAL SERVICES
1340 WEST LINCOLN STREET
PHOENIX, ARIZONA, 80057
TELEPHONE (602)258-6155

DRW. BY: RJG	DATE: 6-15-95	PROJECT NO: 3821
DSG. BY: EAP	DATE: 6-15-95	SHEET NO. 53
APP. BY: AVS	DATE: 6-15-95	DWG. NO.
SCALE: AS NOTED		581-CDA-104