

BENCHMARK: L5402
 DESCRIPTION: RND HD SPK IN LOWER CONC. HDWL
 LOCATION: NORTH END 24 FT. W/O C.L. THE OLD ROAD (W. RDWY)
 & 0.6 MI S/O HENRY MAYO DR. @ MI MKR #8.25
 RECORDED FROM: NEWHALL QUAD.
 ELEVATION: 1031.881 ADJ: 2003

STORMWATER POLLUTION PLAN NOTES

- ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEETFLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES OR WIND.
- STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
- FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
- SEDIMENTS AND OTHER MATERIALS MAY NOT TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEEP UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
- ANY SLOPES WITH DISTURBED SOILS DENIVED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
- THE FOLLOWING BMPs AS OUTLINED IN, BUT NOT LIMITED TO, THE "BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 2003," OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY COUNTY INSPECTORS):

- EROSION CONTROL**
- EC1 - SCHEDULING
 - EC2 - PRESERVATION OF EXISTING VEGETATION
 - EC3 - HYDRAULIC MULCH
 - EC4 - HYDROSEEDING
 - EC5 - SOIL BINDERS
 - EC6 - STRAW MULCH
 - EC7 - GEOTEXTILES, PLASTIC COVERS, & EROSION CONTROL BLANKETS/MATS
 - EC8 - WOOD MULCHING
 - EC9 - EARTH DIKES/DRAINAGE SWALES & LINED DITCHES
 - EC10 - OUTLET PROTECTION/VELOCITY DISSIPATION DEVICES
 - EC11 - SLOPE DRAINS
 - EC12 - STREAMBANK STABILIZATION
 - EC13 - POLYACRYLAMIDE
- TEMPORARY SEDIMENT CONTROL**
- SE1 - SILT FENCE
 - SE2 - SEDIMENT/DESILTING BASIN
 - SE3 - SEDIMENT TRAP
 - SE4 - CHECK DAM
 - SE5 - FIBER ROLLS
 - SE6 - GRAVEL BAG BERM
 - SE7 - STREET SWEEPING AND VACUUMING
 - SE8 - SANDBAG BARRIER
 - SE9 - STRAW BALE BARRIER
 - SE10 - STORM DRAIN INLET PROTECTION
 - SE11 - CHEMICAL TREATMENT
- WIND EROSION CONTROL**
- WE1 - WIND EROSION CONTROL EQUIPMENT TRACKING CONTROL
 - WE2 - STABILIZED CONSTRUCTION ENTRANCE EXIST
 - WE3 - STABILIZED CONSTRUCTION ROADWAY
 - WE4 - ENTRANCE/OUTLET TIRE WASH
- WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL**
- WM1 - MATERIAL DELIVERY AND STORAGE
 - WM2 - MATERIAL USE
 - WM3 - STOCKPILE MANAGEMENT
 - WM4 - SPILL PREVENTION AND CONTROL
 - WM5 - SOLID WASTE MANAGEMENT
 - WM6 - HAZARDOUS WASTE MANAGEMENT
 - WM7 - CONTAMINATED SOIL MANAGEMENT
 - WM8 - CONCRETE WASTE MANAGEMENT
 - WM9 - SANITARY/SEPTIC WASTE MANAGEMENT
 - WM10 - LIQUID WASTE MANAGEMENT
- NON-STORMWATER MANAGEMENT PRACTICES**
- NS1 - WATER CONSERVATION
 - NS2 - DEWATERING OPERATIONS
 - NS3 - PAVING AND GRINDING
 - NS4 - TEMPORARY STREAM CROSSING
 - NS5 - CLEAR WATER DIVERSION
 - NS6 - ILLEGAL CONNECTION/ILLEGAL DISCHARGE DETECTION AND REPORTING
 - NS7 - POTABLE WATER/IRRIGATION
 - NS8 - VEHICLE AND EQUIPMENT CLEANING
 - NS9 - VEHICLE AND EQUIPMENT FUELING
 - NS10 - VEHICLE AND EQUIPMENT MAINTENANCE
 - NS11 - PILE DRIVING OPERATIONS
 - NS12 - CONCRETE CURING
 - NS13 - MATERIAL AND EQUIPMENT USE OVER WATER
 - NS14 - CONCRETE FINISHING
 - NS15 - STRUCTURE DEMOLITION/REMOVAL OVER OR ADJACENT TO WATER
 - NS16 - TEMPORARY BATCH PLANTS

PRIVATE CONTRACT SEWER GENERAL NOTES

- A SEWER CONSTRUCTION PERMIT SHALL BE OBTAINED AND A FEE PAID FOR PRIVATE CONSTRUCTION INSPECTION AND RECORD PLANS TO THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS, CITY ENGINEER FOR THE CITY OF SANTA CLARITA, AT THE PERMIT COUNTER, 900 SOUTH FREMONT AVENUE, 8TH FLOOR, ALHAMBRA, CA 91803. COPIES OF ALL REQUIRED PERMITS, SUCH AS ROAD EXCAVATION, CALTRANS, ETC., MUST BE FILED WITH THE PERMIT APPLICATION.
 - PRIOR TO ISSUANCE OF ANY PERMIT, THE CONTRACTOR SHALL FILE A PERMIT FOR EXCAVATIONS AND TRENCHES FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND A CERTIFICATE OF WORKER'S COMPENSATION INSURANCE WITH THE DEPARTMENT OF PUBLIC WORKS NAMED AS THE CERTIFICATE HOLDER. THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS, CITY ENGINEER FOR THE CITY OF SANTA CLARITA, SHALL BE NOTIFIED 30 DAYS PRIOR TO CANCELLATION OF THE INSURANCE POLICY.
 - IF WORK IS DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.
 - WHEN WORK IS WITHIN A CONTRACT CITY, THE CONTRACTOR MUST CONTACT THE DIRECTOR OF PUBLIC WORKS OF THAT CITY, TO DETERMINE THE LOCATION TO PAY THE INSPECTION FEE.
 - THE CONTRACTOR SHALL CONTACT THE DISTRICT OFFICE LISTED ON THE "APPLICATION FOR CONSTRUCTION PERMIT" TO ARRANGE FOR AN ACCEPTABLE CONSTRUCTION START DATE.
 - APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES, CITY ENGINEER FOR THE CITY OF SANTA CLARITA, DOES NOT CONSTITUTE A REPRESENTATION AS TO ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE COMPLETES TO ALL PAGES.
 - ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", INCLUDING SUPPLEMENTS (IF THERE IS ANY), THE LATEST "ADDITIONS AND AMENDMENTS TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AND THE "SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWER" AND SHALL BE PROCEEDED ONLY IN THE PRESENCE OF THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS.
 - THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10.4.1 OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" IN REGARD TO SAFETY ORDERS AND SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENT" AS SHOWN ON LOS ANGELES DEPARTMENT OF PUBLIC WORKS STANDARD PLAN 6008-1.
 - ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1988.
 - NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS, CITY ENGINEER FOR THE CITY OF SANTA CLARITA.
 - NO REPRESENTATIVE OF THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS, CITY ENGINEER FOR THE CITY OF SANTA CLARITA WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
 - GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTERLINE OF STREETS, OR CENTERLINE OF ALLEYS, ARE SHOWN BY CIRCLES ON PROFILES AT ALL POINTS BETWEEN SAID DESIGNED POINTS, THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAIN BETWEEN SAID DESIGN POINTS.
 - THE PRIVATE ENGINEER SHALL FURNISH THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS, CITY ENGINEER FOR THE CITY OF SANTA CLARITA WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND "Y" OR "T" BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHIMNEYS SHALL NOT HAVE AN ANGLE OF LESS THAN 45 DEGREES WITH THE M.L. SEWER.
 - ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
 - THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
 - AN APPROVED BACKWATER VALVE IS REQUIRED WHEN THE PAD IS LOWER IN ELEVATION THAN THE TOP OF THE NEXT UPSTREAM MANHOLE.
- CONSTRUCTION NOTES**
- PROVIDE SURVEY STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTERLINE OF EACH MANHOLE.
 - VITRIFIED CLAY PIPE JOINTS SHALL BE TYPE "D" OR "G" PER "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTION 208-2.
 - IF A POWERPOLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED PER LACDPW STANDARD PLAN 2023-2, CASE II, TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
 - ALL JOINTS BETWEEN CAST IRON PIPE AND VITRIFIED CLAY SHALL BE MADE WITH A RUBBER SLEEVE JOINT, TYPE "D" (WITH BUSHING IF NECESSARY) PER "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTION 208-2.
 - HOUSE LATERALS TO BE CONSTRUCTED WITH INVERTS AT THE PROPERTY LINE 6 FEET BELOW CURB GRADE EXCEPT AS NOTED.
 - WYE OR TEE BRANCHES MAY BE USED FOR CONNECTIONS TO THE MAINLINE SEWERS EXCEPT AS NOTED.
 - IF DURING THE COURSE OF CONSTRUCTION, IT IS DETERMINED THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAINLINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS NOT INDICATED ON THE PLANS, THE PIPES SHALL BE ENCASED PER LACDPW STANDARD PLAN 2023-2, CASE II, UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
 - ALL STRUCTURES SHALL BE EITHER BRICK SEWER MANHOLES PER LACDPW STANDARD PLAN 5-3 (APWA 203-0), OR PRECAST CONCRETE SEWER MANHOLES PER LACDPW STANDARD PLAN 5-36 (APWA 200-2), OR REINFORCED PRECAST CONCRETE MANHOLE PER LACDPW STANDARD PLAN 2003-2, EXCEPT AS NOTED.
 - RESURFACE ALL TRENCHES WITHIN PAVED AREAS TO MEET DEPARTMENT OF PUBLIC WORKS OR CALTRANS REQUIREMENTS IN ACCORDANCE WITH THE PERMITS.
 - FULL COMPLIANCE WITH SECTION 308-1.3.4 OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" WILL BE REQUIRED FOR BACKFILL IN STREET. CERTIFICATION OF BACKFILL COMPACTION, AND SAND EQUIVALENTS BY A QUALIFIED CIVIL ENGINEER SHALL BE PROVIDED BY THE PERMITTEE PRIOR TO THE ISSUANCE OF A CERTIFICATE OF PARTIAL ACCEPTANCE.
 - ALL BACKFILL AND FILLS OUTSIDE OF THE STREET RIGHT OF WAY SHALL BE COMPACTED TO 90% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM SOIL COMPACTION TEST D 1557-78 METHOD "D" UNLESS OTHERWISE SPECIFIED. THIS SHALL BE CERTIFIED BY A QUALIFIED CIVIL ENGINEER. THIS CERTIFICATION SHALL BE SUBMITTED TO THE CONSTRUCTION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE ACCEPTANCE OF THE WORK BY THE COUNTY.
 - MANHOLE TOPS IN UNIMPROVED RIGHTS OF WAY TO BE SIX INCHES ABOVE FINISHED GRADE.
 - SEWERS TO BE TESTED FOR LEAKAGE PER SECTION 306-1.4 OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AND "SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWER".
 - MANHOLE TOPS IN UNIMPROVED RIGHTS OF WAY TO BE LEVEL WITH FINISHED GRADE.
 - ALL WYES AND/OR HOUSE LATERALS ARE TO BE LOCATED AT LEAST 5' APART AND WHEN POSSIBLE NOT CLOSER THAN 5' TO ANY MANHOLE.

PROFILE, ALIGNMENT, AND GRADE OF
SANITARY SEWERS
 TO BE CONSTRUCTED IN
 PARCEL MAP 26363 PC NO. 11645
 13 SHEETS: 17 PAGES
 COUNTY OF LOS ANGELES CALIFORNIA
 INDEX 1217

DONALD L. WOLFE DIRECTOR OF PUBLIC WORKS
 APPROVED BY LAND DEVELOPMENT DIVISION
 BY: [Signature] 10/25/07
 ASSISTANT DIVISION ENGINEER DATE

SUBMITTED BY: [Signature] 10/26/07
 SEWER AND WATER/LANDSCAPE SECTION DATE

SANTA CLARITA VALLEY SANITATION DISTRICT
 OF LOS ANGELES COUNTY, CALIFORNIA
 STEPHEN R. MACKLIN CHIEF ENGINEER AND GENERAL MANAGER
 APPROVED BY: [Signature] DATE: 10/25/07
 OFFICE ENGINEER

PRIVATE ENGINEERS NOTICE TO CONTRACTORS:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS IS REQUIRED BY A SEARCH OF AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE. THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS MAP. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING. PRIOR TO EXCAVATION THE CONTRACTOR SHALL CALL TOLL FREE 1-800-422-4133 TO VERIFY THE UNDERGROUND LOCATION OF GAS AND TELEPHONE LINES. THE CONTRACTOR SHALL ALSO CALL MR. RAY CUMMINGS OF GENERAL TELEPHONE COMPANY AT 1-805-948 4871 SO THAT THEY CAN MARK THE LOCATION OF UNDERGROUND TELEPHONE LINES.

[Signature] PROJECT ENGINEER RCE NO 51929 DATE: 10-21-07

INDEX MAP

SCALE: 1" = 600' INDEX 1217
 P.C. 11645 P.M. NO. 26363
 THOMAS GUIDE PAGE: 4549 / G-1

NO.	REVISION	REVISED BY	APPROVED BY	DATE
1	REVISED SANITATION DISTRICT INSPECTOR PHONE #, REVISED APWA TO SPPWC AND ADDED GENERAL NOTE 16.	J.F.V.	[Signature]	10/19/11

STANDARD PLANS FOR PUBLIC WORKS

2000-0 LEGEND FOR SANITARY SEWER PLANS AND PROFILES AND DISTRICT MAPS.

2002-1 PRECAST CONCRETE SHALLOW MANHOLE

2003-2 REINFORCED PRECAST CONCRETE MANHOLE

2014-1 RECTANGULAR MANHOLE FRAME AND COVER

2015-1 STANDARD MANHOLE STEP

2021-1 BEDDING FOR SEWER PIPE

2023-2 CRADLING AND ENCASEMENT

2024-1 WYE OR TEE SUPPORT

2028-1 EROSION PROTECTION IN STEEP SLOPES

2027-1 ALLOWABLE TRENCH WIDTHS

6008-1 MINIMUM PUBLIC SAFETY REQUIREMENTS

207-1 PRECAST REINFORCED CONCRETE MANHOLE BASE

208-1 BREAKING INTO EXISTING MANHOLES

210-2 MANHOLE FRAME AND COVER LOOKING TYPE

220-2 CHIMNEYS

221-1 PIPE ANCHORS AND BACKFILL STABILIZERS

222-1 HOUSE CONNECTION SEWER

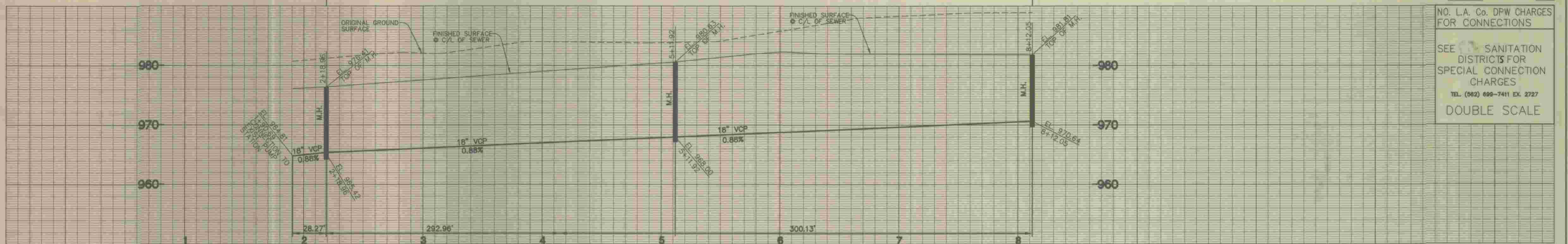
223-1 HOUSE CONNECTION REMODELING

NOTE:

FOR 18" DUCTILE IRON GRAVITY SEWER PIPING 18" DIAMETER GRAVITY SEWER SHALL BE DUCTILE IRON PIPE AND FITTINGS, MINIMUM CLASS 350. JOINTS SHALL BE TR FLEX RESTRAINED JOINTS FOR ALL BURIED PIPE AND FITTINGS, OR EQUIVALENT, FOR ABOVE GROUND PIPING SUCH AS WHEN CROSSING THE COMMERCE CENTER BRIDGE, JOINTS SHALL BE BOLTED RESTRAINED JOINTS SUCH AS THE TR FLEX JOINT SYSTEM, OR EQUIVALENT.

INTERNAL LINING OF PIPE AND FITTINGS SHALL BE PROTECTED TO 40 MILS. OR APPROVED US PIPE FACTORY APPLIED TO A NOMINAL THICKNESS OF 40 MILS. OR APPROVED EQUIVALENT. EACH PIECE OF PIPE AND EVERY FITTING SHALL BE HOLIDAY TESTED AND THICKNESS TESTED AT THE FACTORY AND CERTIFIED IN WRITING TO THE OWNER BY THE FACTORY TO BE HOLIDAY-FREE AND IN COMPLIANCE WITH THE NOMINAL THICKNESS REQUIREMENT.

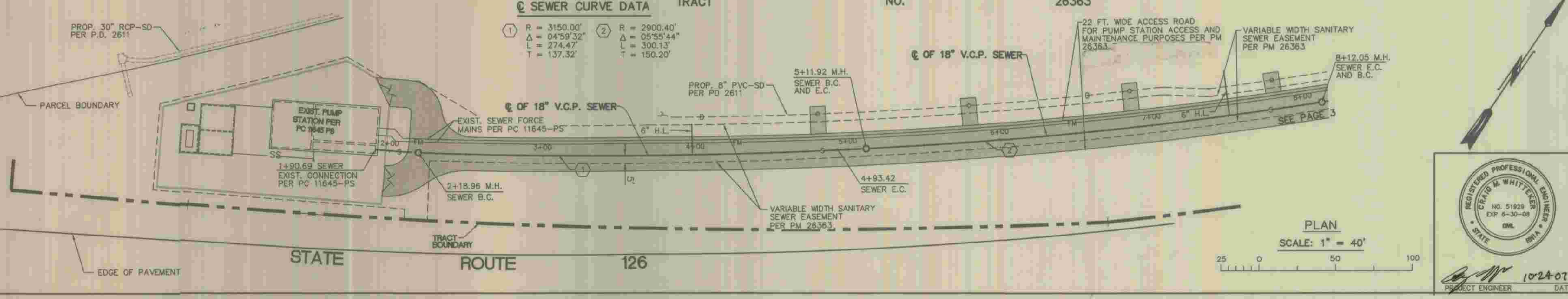
EXTERNAL COATING SHALL BE STANDARD FACTORY BITUMINOUS COATING OF 2 MILS THICKNESS. ALL BURIED PIPE AND FITTING SHALL BE POLYETHYLENE WRAPPED IN ACCORDANCE WITH AWWA C105.



SEWER CURVE DATA TRACT NO. 26363

① R = 3150.00' Δ = 04°59'32" L = 274.47' T = 137.32'

② R = 2900.40' Δ = 05°55'44" L = 300.13' T = 150.20'



P.C. 11645 PAGE 2

NO. L.A. Co. DPW CHARGES FOR CONNECTIONS

SEE SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 698-7411 EX. 2727

DOUBLE SCALE

SANITARY SEWER PLANS IN
 PARCEL NO. 26363 PC NO. 11645

REVIEWED BY LAND DEVELOPMENT DIVISION
 BY: [Signature] DATE: 10/25/07
 SEWER AND WATER/LANDSCAPE SECTION

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

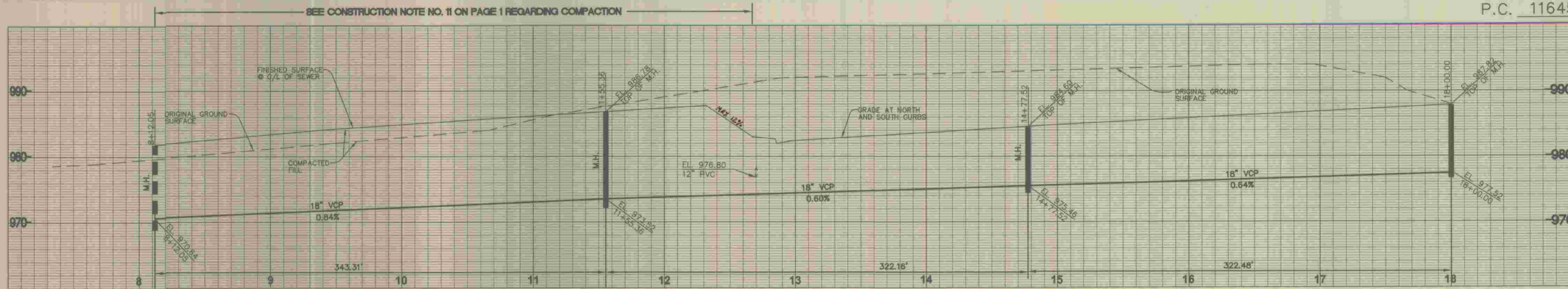
ALLIANCE
 LAND PLANNING & ENGINEERING INC.

2248 FARADAY AVE.
 CARLSBAD, CA 92008
 TEL: (760) 431-9896
 FAX: (760) 431-8802

REGISTERED PROFESSIONAL ENGINEER
 CAPRIS M. WHITFIELD
 NO. 51929 EXP. 8-30-08
 STATE OF CALIFORNIA

PROJECT ENGINEER DATE: 10/24/07

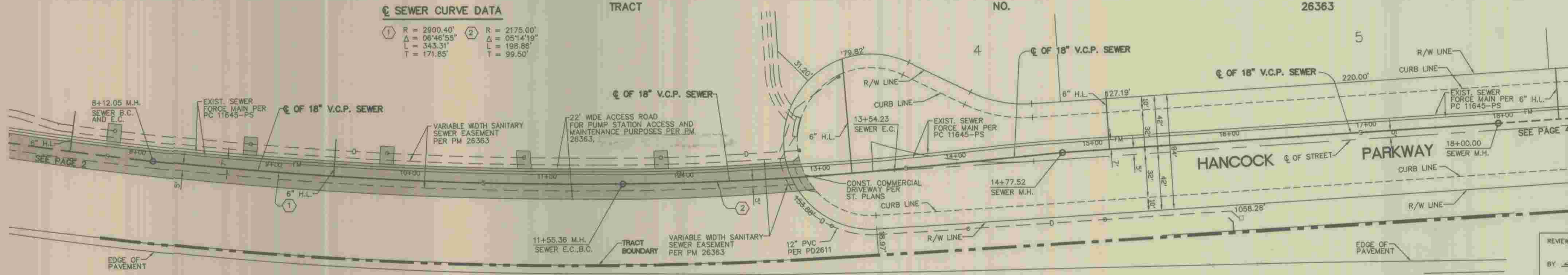
L:\CAD\0610\SEWER\SHEET-01.DWG JUN 0610



NO. L.A. CO. DPW CHARGES FOR CONNECTION
 SEE SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
 TEL. (562) 699-7411 EX. 2727
 DOUBLE SCALE

SEWER CURVE DATA

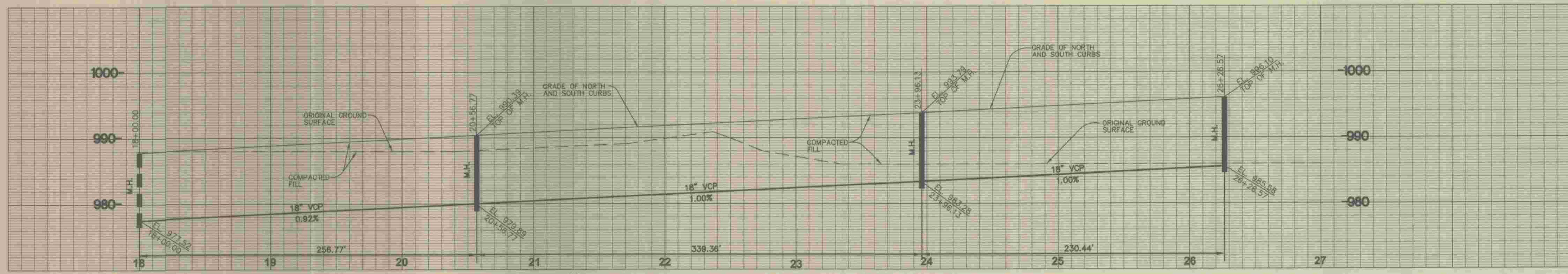
① R = 2800.40'	② R = 2175.00'
Δ = 08°40'55"	Δ = 05°14'19"
L = 343.31'	L = 198.86'
T = 171.85'	T = 99.50'



REGISTERED PROFESSIONAL ENGINEER
 CHARLES M. WHITEHEAD
 NO. 51929
 EXP. 6-30-06
 C.S.E.
 STATE OF CALIFORNIA

PLAN
 SCALE: 1" = 40'

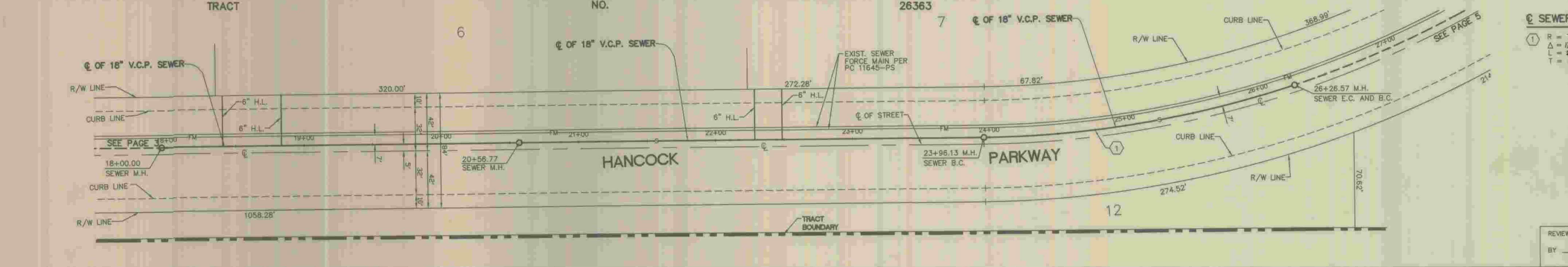
REVIEWED BY LAND DEVELOPMENT DIVISION
 BY: *John Davis*
 SEWER AND WATER/LANDSCAPE SECTION
 DATE: 10-25-07



NO. L.A. CO. DPW CHARGES FOR CONNECTION
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 DOUBLE SCALE

SEWER CURVE DATA

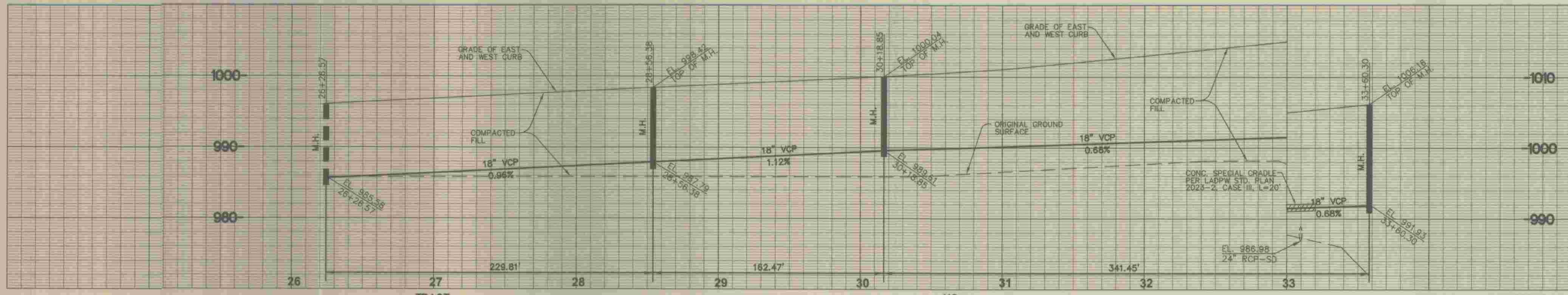
① R = 747.00'
Δ = 17°40'30"
L = 230.44'
T = 116.14'



REGISTERED PROFESSIONAL ENGINEER
 CHARLES M. WHITEHEAD
 NO. 51929
 EXP. 6-30-06
 C.S.E.
 STATE OF CALIFORNIA

PLAN
 SCALE: 1" = 40'

REVIEWED BY LAND DEVELOPMENT DIVISION
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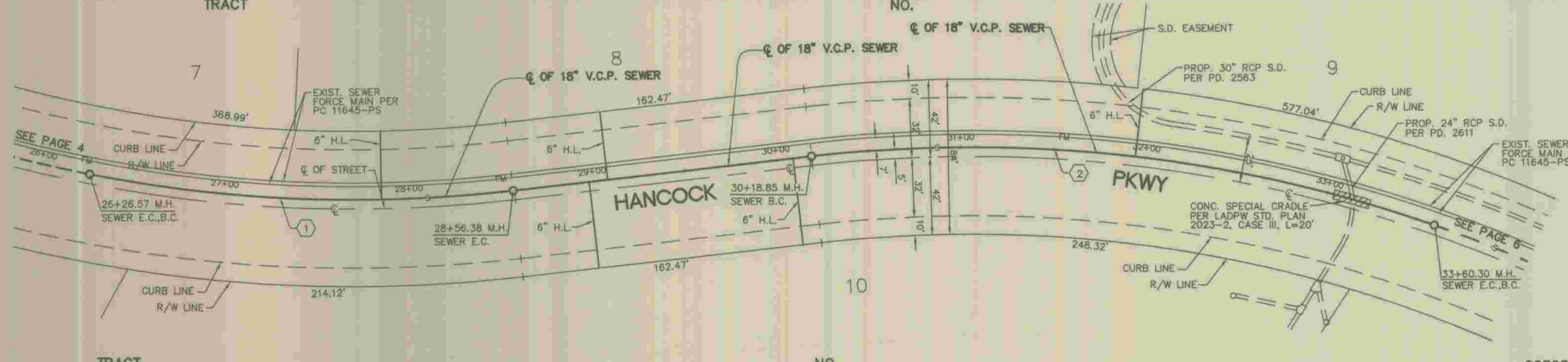
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DOUBLE SCALE

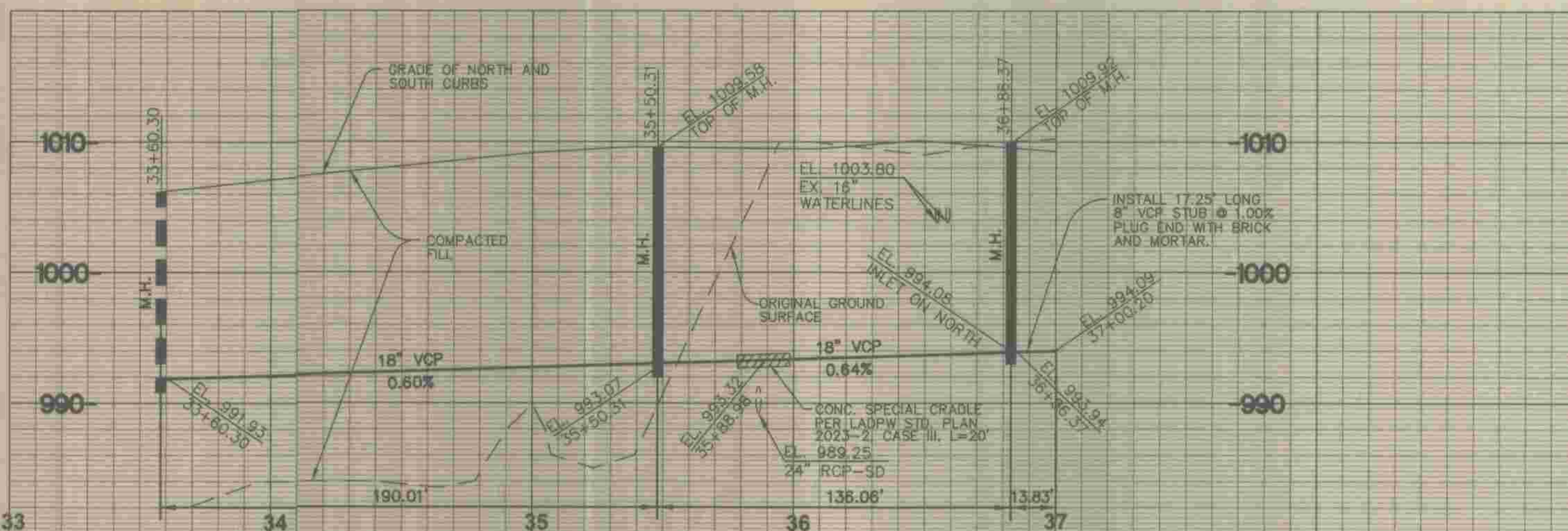
SEWER CURVE DATA

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Δ = 17°37'34"
L = 229.80'
T = 115.82'
- ② R = 755.00'
Δ = 25°54'44"
L = 341.45'
T = 173.70'



PLAN SCALE: 1" = 40'

REVIEWED BY LAND DEVELOPMENT DIVISION
BY: [Signature] DATE: 10-25-07
SEWER AND WATER/LANDSCAPE SECTION



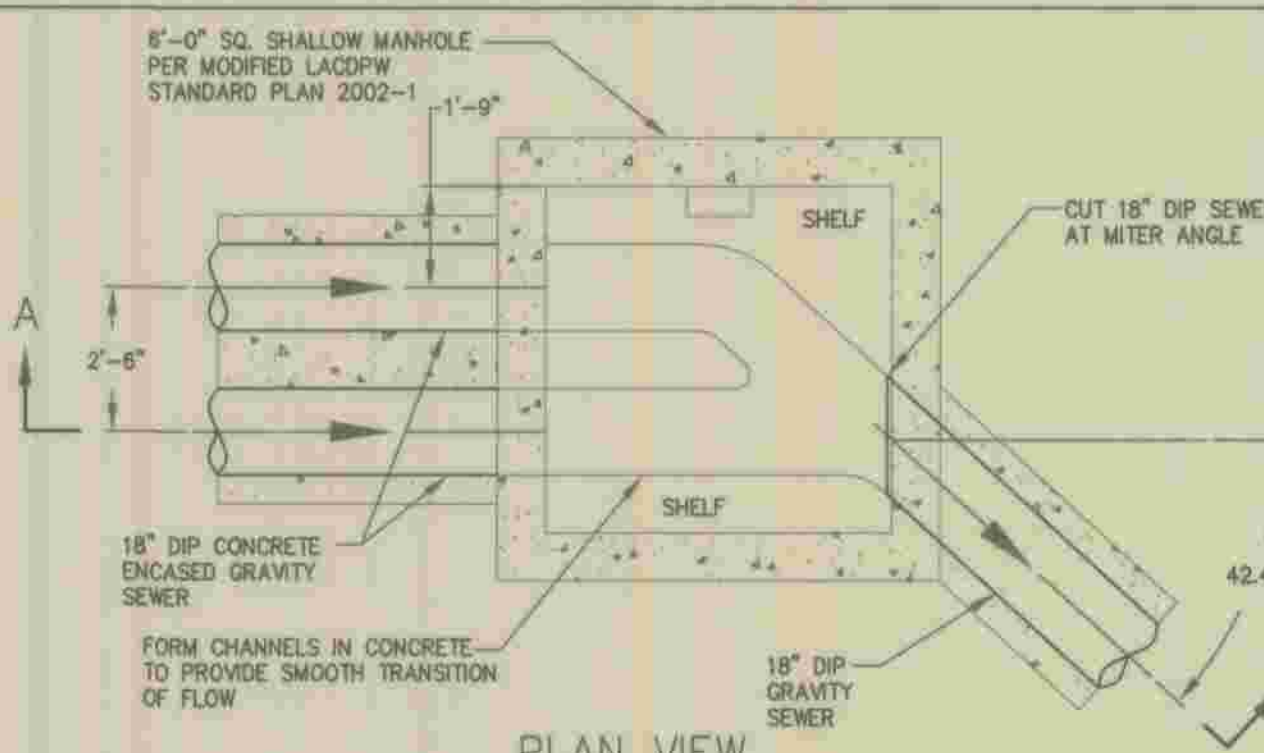
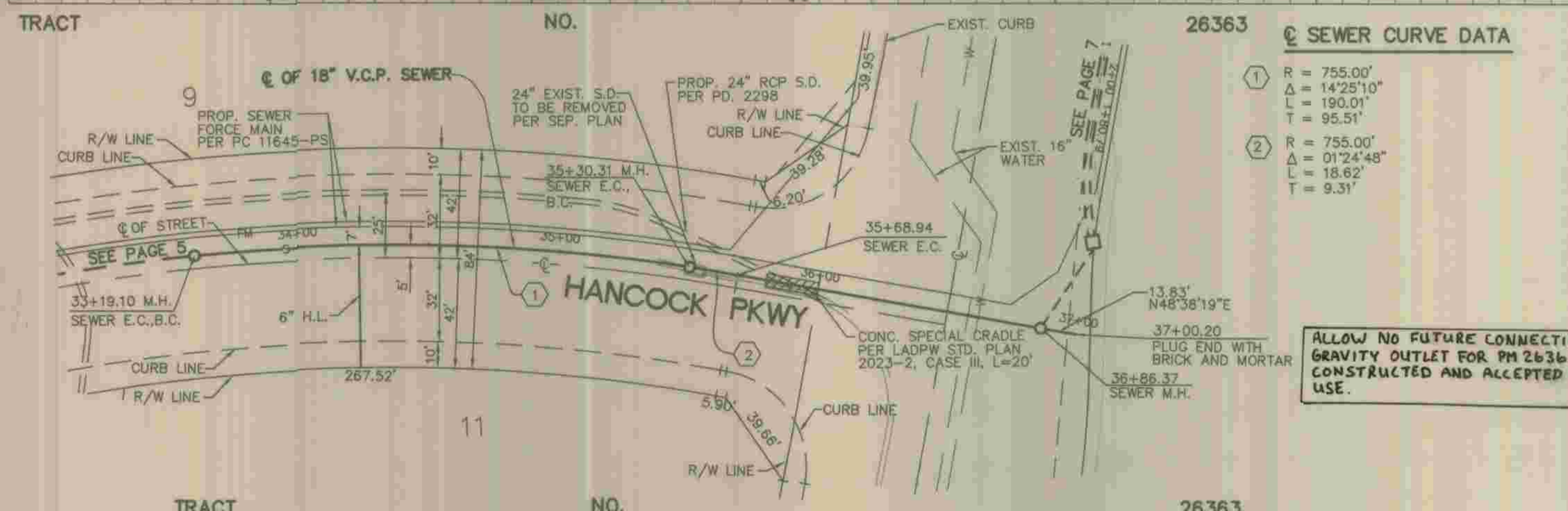
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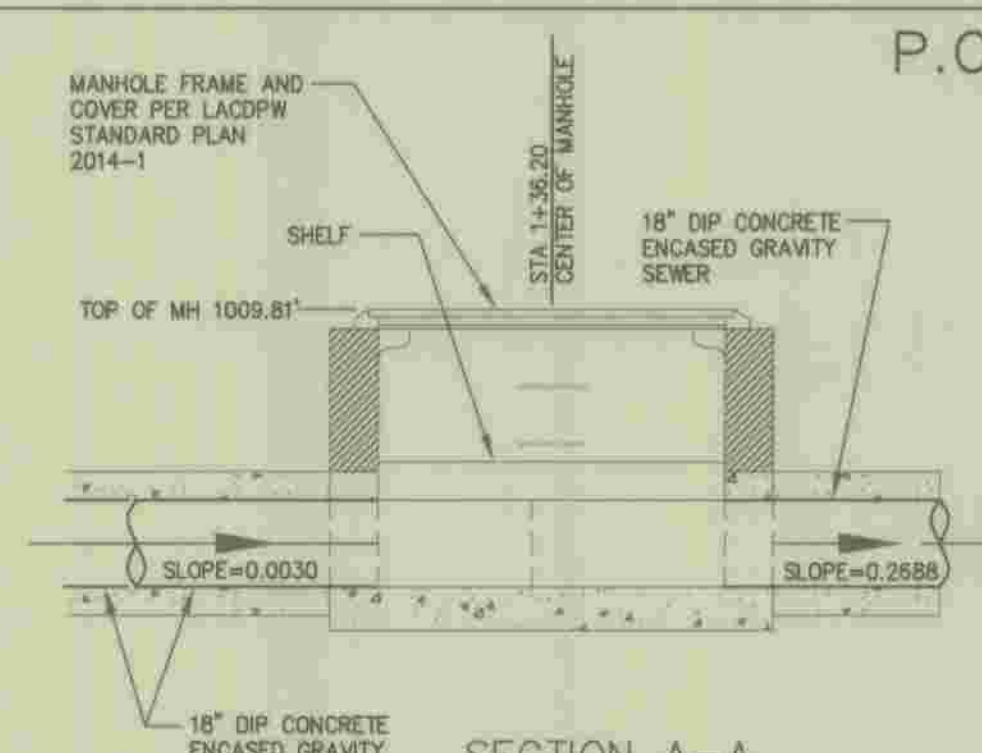
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T = 95.51'
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Δ = 01°24'48"
L = 18.62'
T = 9.31'

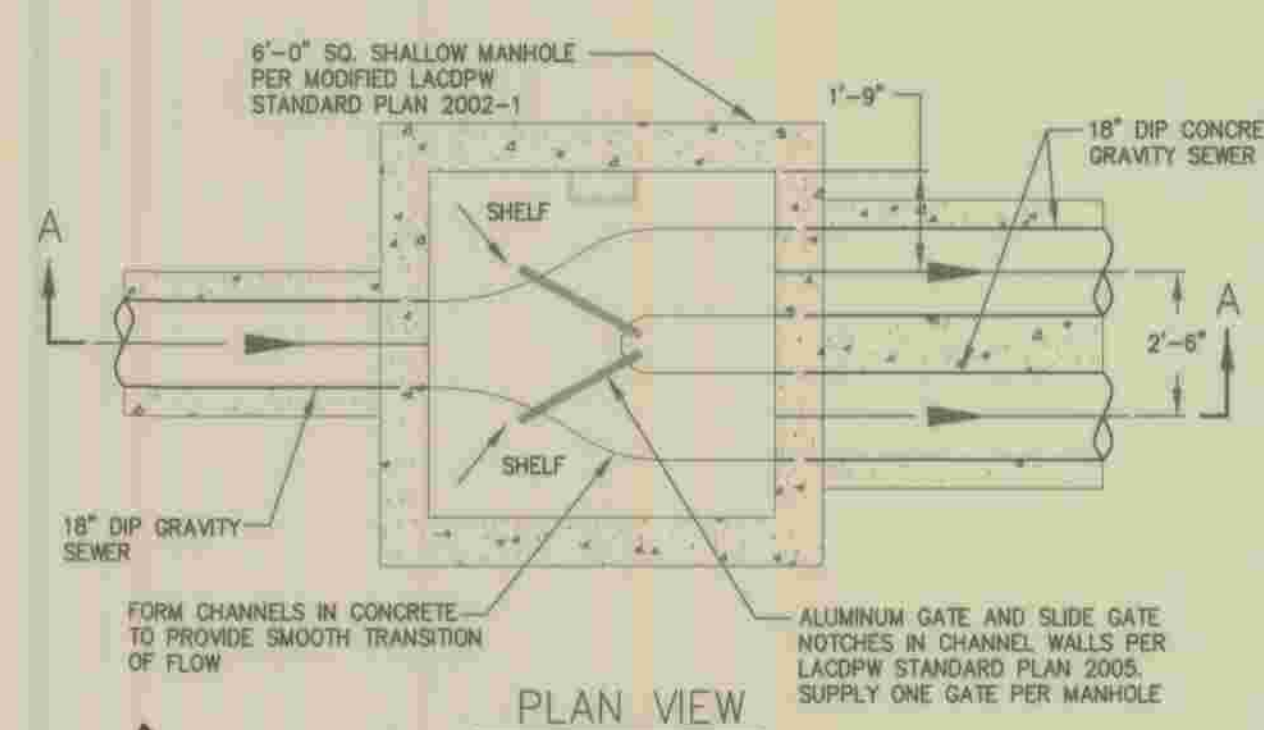


GRAVITY SEWER CONVERGENT MANHOLE AT STA 1+36.20

NOT TO SCALE

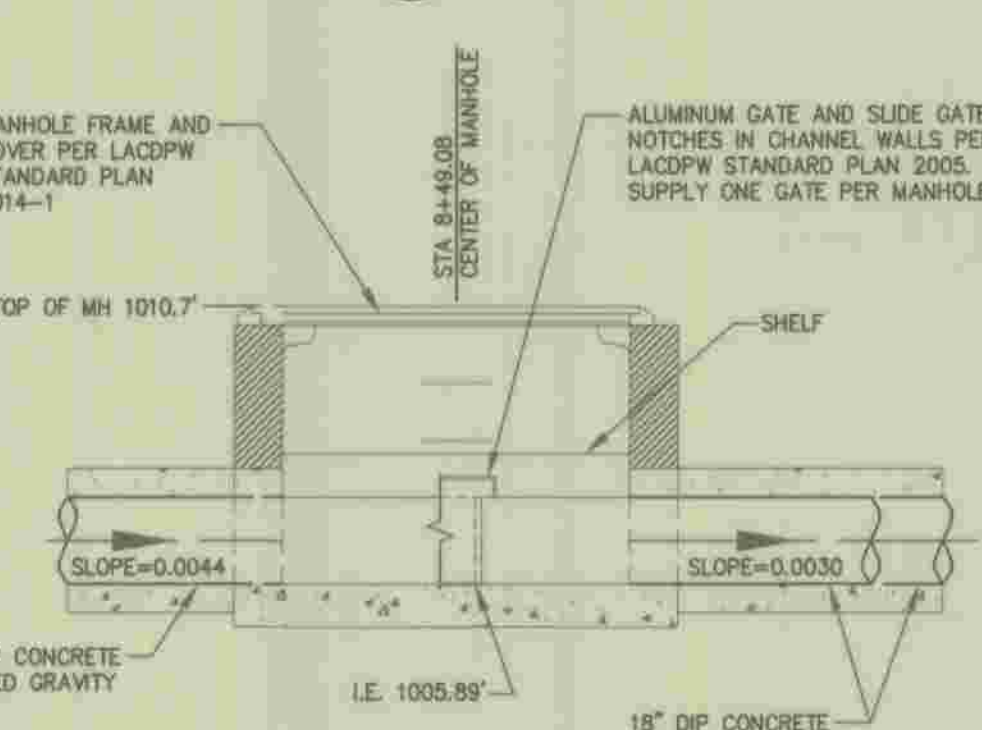


SECTION A-A



GRAVITY SEWER DIVERGENT MANHOLE AT STA 8+49.08

NOT TO SCALE



SECTION A-A

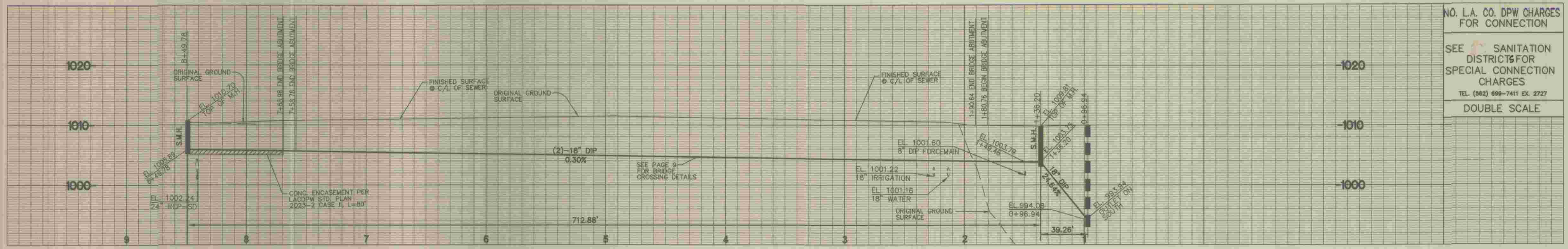
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BY: [Signature] DATE: 10-25-07
SEWER AND WATER/LANDSCAPE SECTION



PLAN SCALE: 1" = 40'

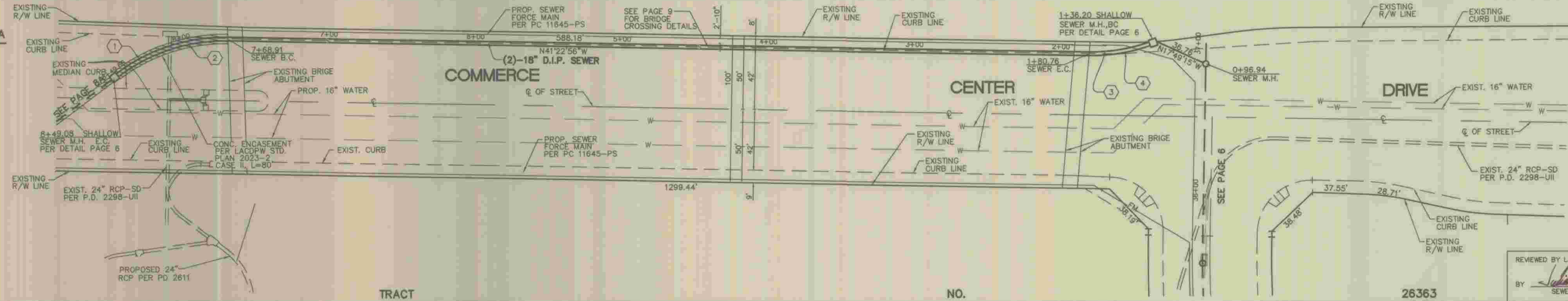
NO. L.A. CO. DPW CHARGES FOR CONNECTION

SEE SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
 TEL. (862) 699-7411 EX. 2727
 DOUBLE SCALE



SEWER CURVE DATA

- ① R = 122.50'
 Δ = 38°07'57"
 L = 81.53'
 T = 42.34'
- ② R = 120.00'
 Δ = 38°07'57"
 L = 79.86'
 T = 41.47'
- ③ R = 120.00'
 Δ = 20°17'44"
 L = 42.51'
 T = 21.48'
- ④ R = 117.51'
 Δ = 20°17'44"
 L = 41.62'
 T = 21.03'

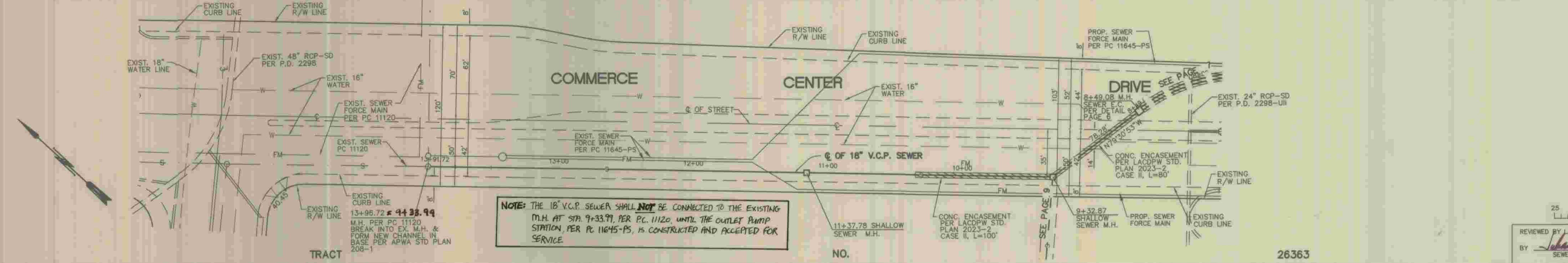
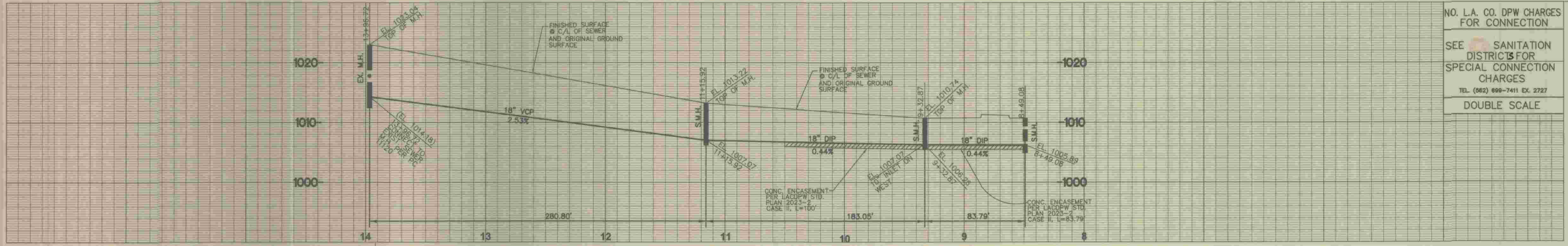


PLAN
 SCALE: 1" = 40'

REVIEWED BY LAND DEVELOPMENT DIVISION
 BY *Julian P. [Signature]* DATE 10-25-07
 SEWER AND WATER/LANDSCAPE SECTION

NO. L.A. CO. DPW CHARGES FOR CONNECTION

SEE SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
 TEL. (862) 699-7411 EX. 2727
 DOUBLE SCALE



NOTE: THE 18" V.C.P. SEWER SHALL NOT BE CONNECTED TO THE EXISTING M.H. AT STA. 9+33.71, PER P.C. 11120, UNTIL THE OUTLET PUMP STATION, PER P.C. 11645-PS, IS CONSTRUCTED AND ACCEPTED FOR SERVICE.



PLAN
 SCALE: 1" = 40'

REVIEWED BY LAND DEVELOPMENT DIVISION
 BY *Julian P. [Signature]* DATE 10-25-07
 SEWER AND WATER/LANDSCAPE SECTION

BC 1021 WAB 24111 03

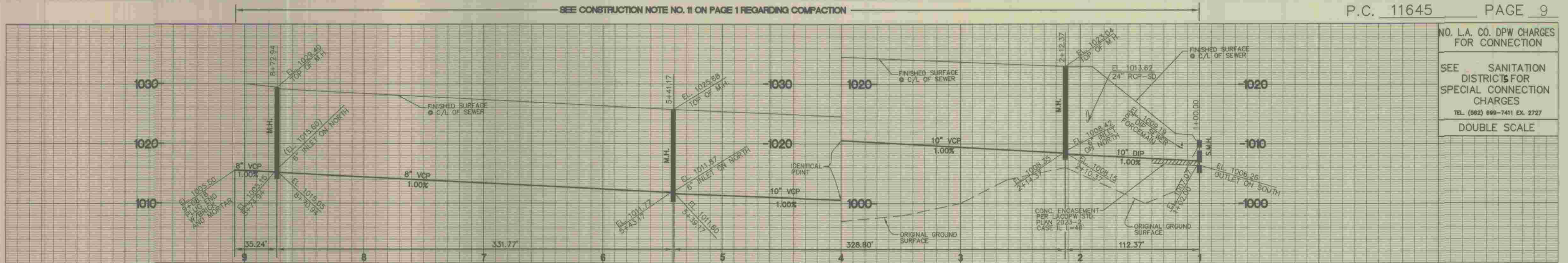
SEE CONSTRUCTION NOTE NO. 11 ON PAGE 1 REGARDING COMPACTION

NO. L.A. CO. DPW CHARGES FOR CONNECTION

SEE SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 699-7411 EX. 2727

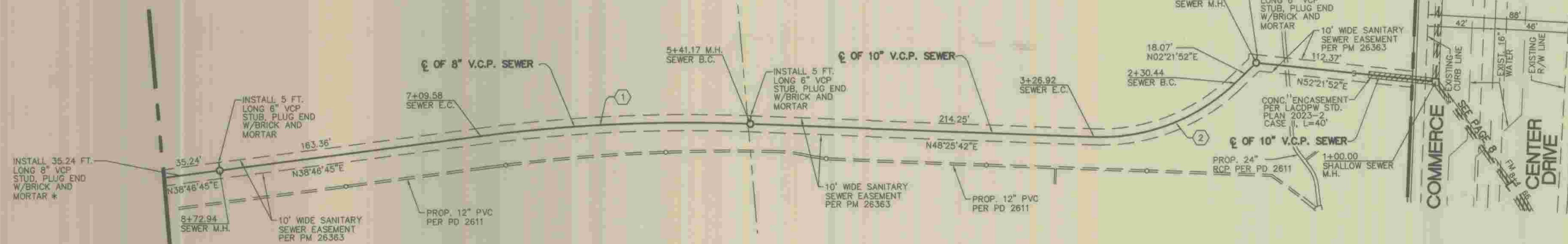
DOUBLE SCALE



SEWER CURVE DATA

- ① R = 1000.00'
Δ = 09°38'57"
L = 168.41'
T = 84.40'
- ② R = 120.00'
Δ = 48°03'50"
L = 95.48'
T = 51.02'

* ISSUE NO HOUSE LATERAL CONNECTION PERMITS. MAINLINE MUST BE EXTENDED AND MANHOLE CONSTRUCTED.



PLAN SCALE: 1" = 40'



REVIEWED BY LAND DEVELOPMENT DIVISION
 BY *Julian Boyd* DATE 10-25-07
 SEWER AND WATER/LANDSCAPE SECTION

NO. L.A. CO. DPW CHARGES FOR CONNECTION

SEE SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 699-7411 EX. 2727

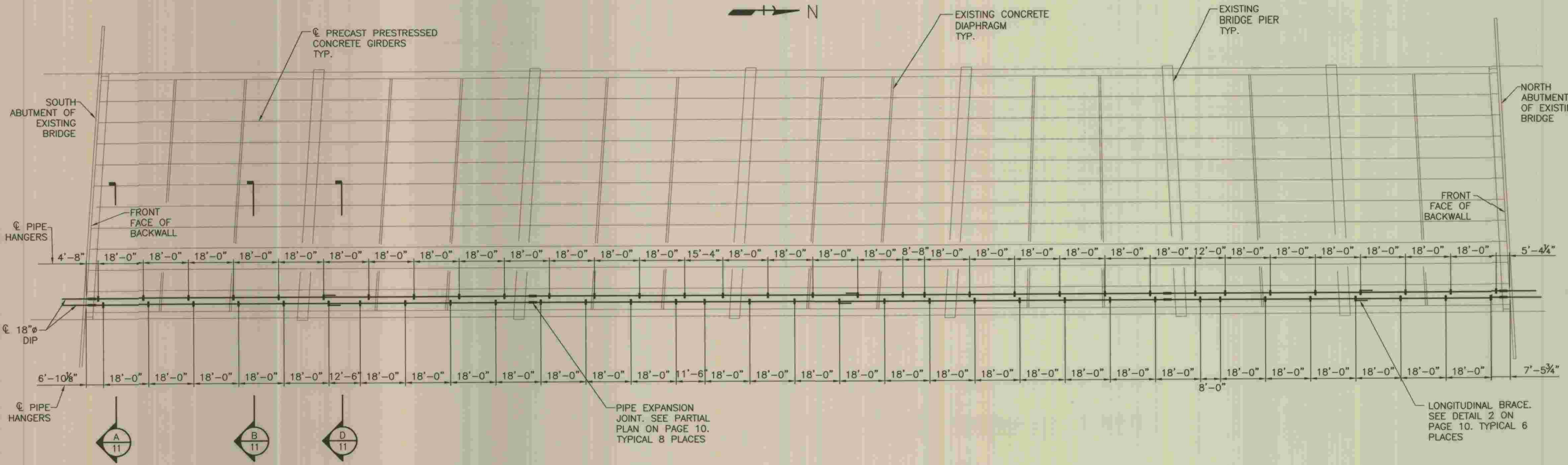
DOUBLE SCALE



PLAN SCALE: 1" = 40'

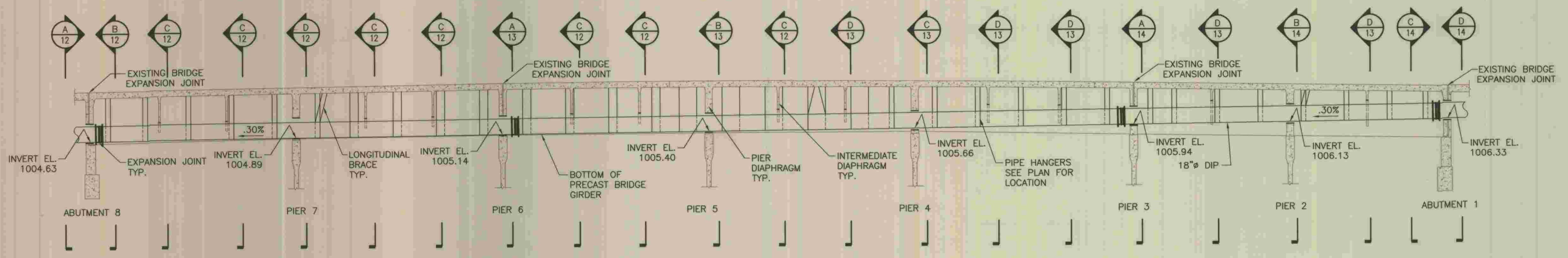


REVIEWED BY LAND DEVELOPMENT DIVISION
 BY *Julian Boyd* DATE 10-25-07
 SEWER AND WATER/LANDSCAPE SECTION



PLAN EXISTING BRIDGE - COMMERCE CENTER DR. OVER CASTAIC CREEK

SCALE: 1" = 20'



- CONSTRUCTION NOTES:**
- DO NOT DAMAGE EXISTING REINFORCEMENT BARS. EXISTING REINFORCEMENT BARS WITHIN NEW CONCRETE SHALL BE PROTECTED IN PLACE.
 - REINFORCEMENT BARS SHALL BE CUT FLUSH WITH THE SURFACE OF THE NEW OPENING AND THE EXPOSED END OF THE BARS SHALL BE BURNED OFF 1" BELOW THE SURFACE OF THE CONCRETE AND THE VOID SHALL BE FILLED WITH EPOXY.
 - IF REINFORCEMENT BARS ARE ENCOUNTERED DURING THE DRILLING FOR THE PIPE SUPPORT, THE SUPPORT BRACKET SHALL BE SHIFTED TO AVOID REINFORCEMENTS, AND THE PRIOR HOLE DRILLED SHALL BE FILLED WITH EPOXY.

- GENERAL NOTES:**
- CONCRETE FOR EDGE BEAMS SHALL BE A 4000 PSI MIX WITH 3/8" MAXIMUM AGGREGATE SIZE. THE CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 2". A SUPERPLASTICIZER SHALL BE ADDED BEFORE PLACING THE CONCRETE TO INCREASE THE SLUMP TO 8".
 - ALL REINFORCEMENT STEEL SHALL BE ASTM DESIGNATION A615 GRADE 60.

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 SAN DIEGO, CA 92127
 PHONE (858) 673-8416
 FAX (858) 673-8418

REVIEWED DESIGN DIVISION
 BY *[Signature]* DATE 10-25-07
 STRUCTURES SECTION

REVIEWED LAND DEVELOPMENT DIVISION
 BY *[Signature]* DATE 10-25-07
 SEWER AND WATER/LANDSCAPING SECTION

NO.	REVISIONS	REVISED BY	APPROVED BY	DATE

REGISTERED PROFESSIONAL ENGINEER
 DANIEL WEINGART
 No. 53616
 Exp. 6/30/09
 STRUCTURAL
 STATE OF CALIFORNIA
[Signature]
 PROJECT ENGINEER

18" DIP BRIDGE CROSSING
 SANITARY SEWER PLANS

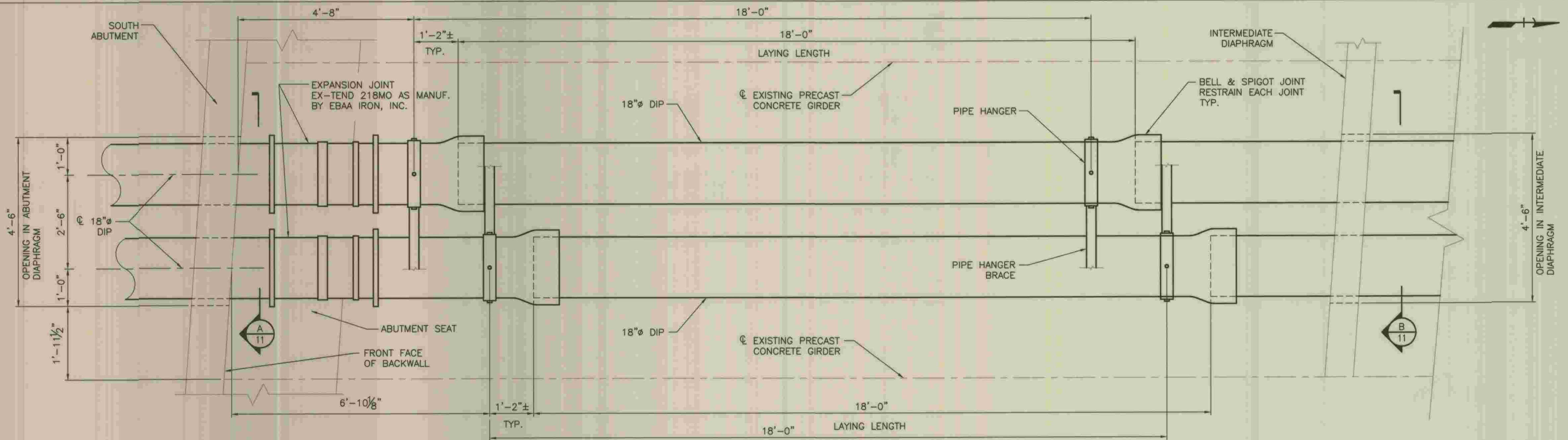
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

PLANS PREPARED BY:

ALLIANCE
 LAND PLANNING & ENGINEERING INC.
 5962 LAPLACE CT.
 SUITE 130
 CARLSBAD, CA 92008
 TEL: (760) 431-9896
 E-MAIL: cwhittaker@allianceeng.com

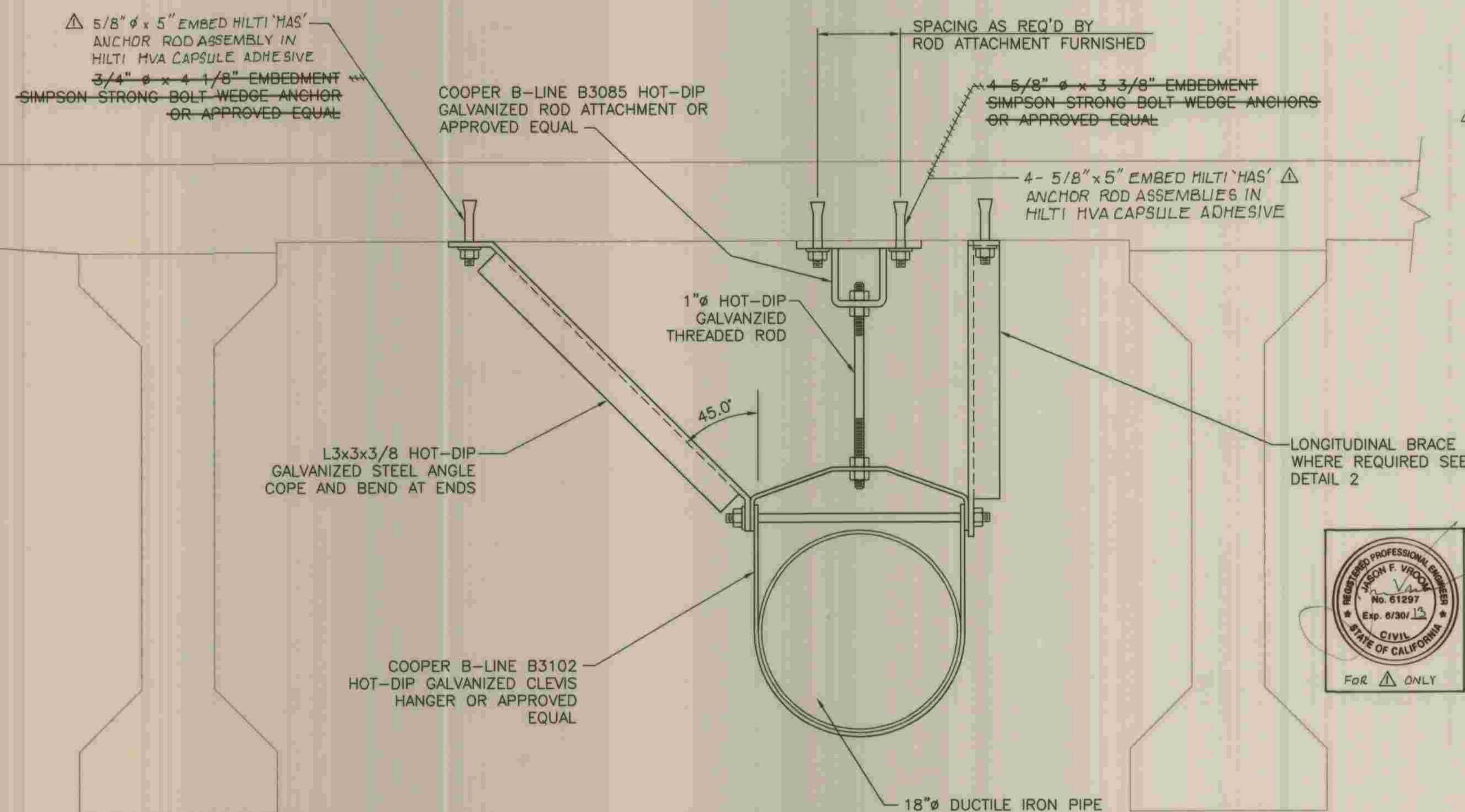
TRACT NO. 26363 PAGE 10

T.G.P.4549 GRID H1



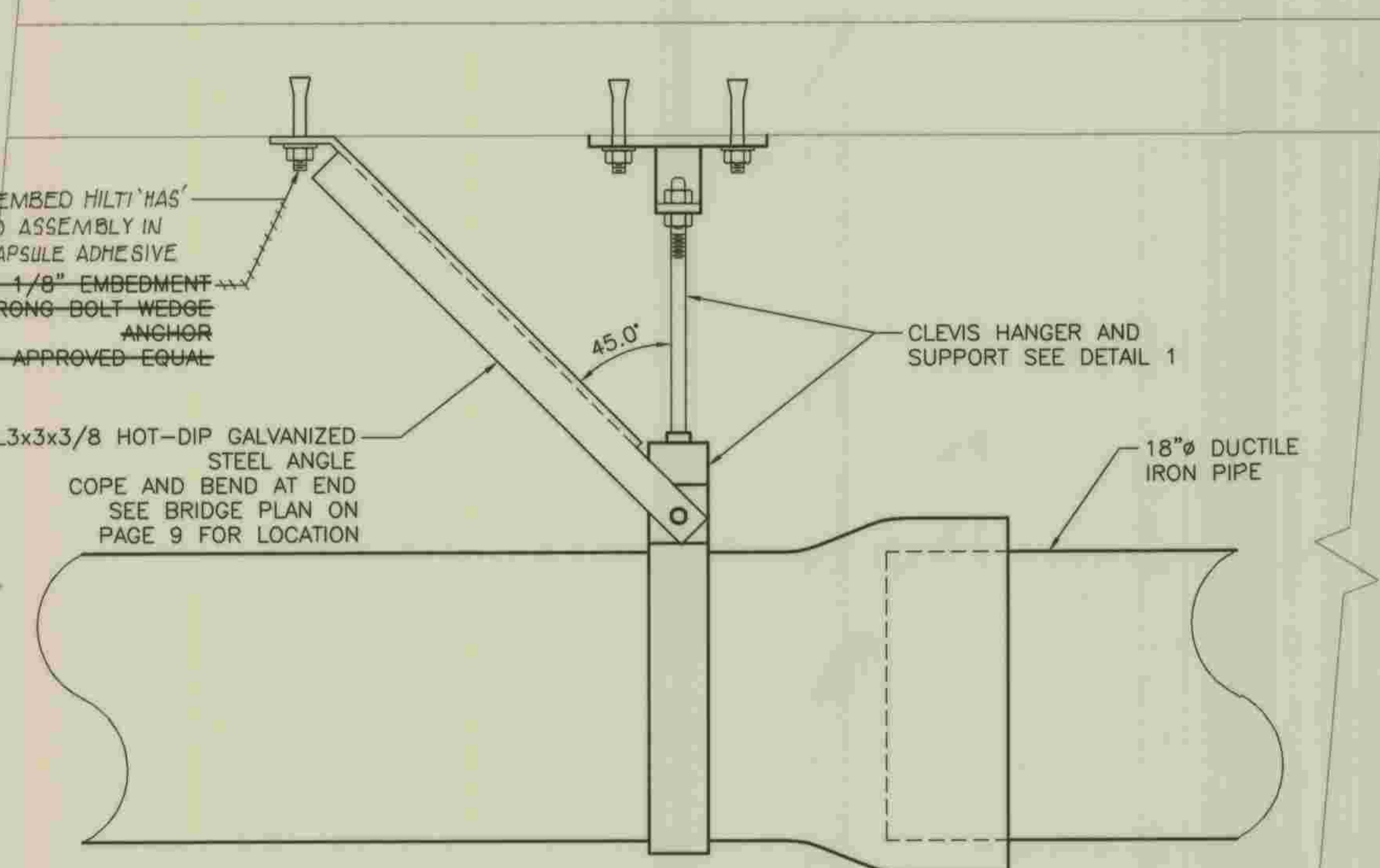
PARTIAL PLAN AT SOUTHEAST CORNER OF BRIDGE

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



TYPICAL PIPE SUPPORT AND HORIZONTAL BRACE DETAIL

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



TYPICAL LONGITUDINAL BRACE DETAIL

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



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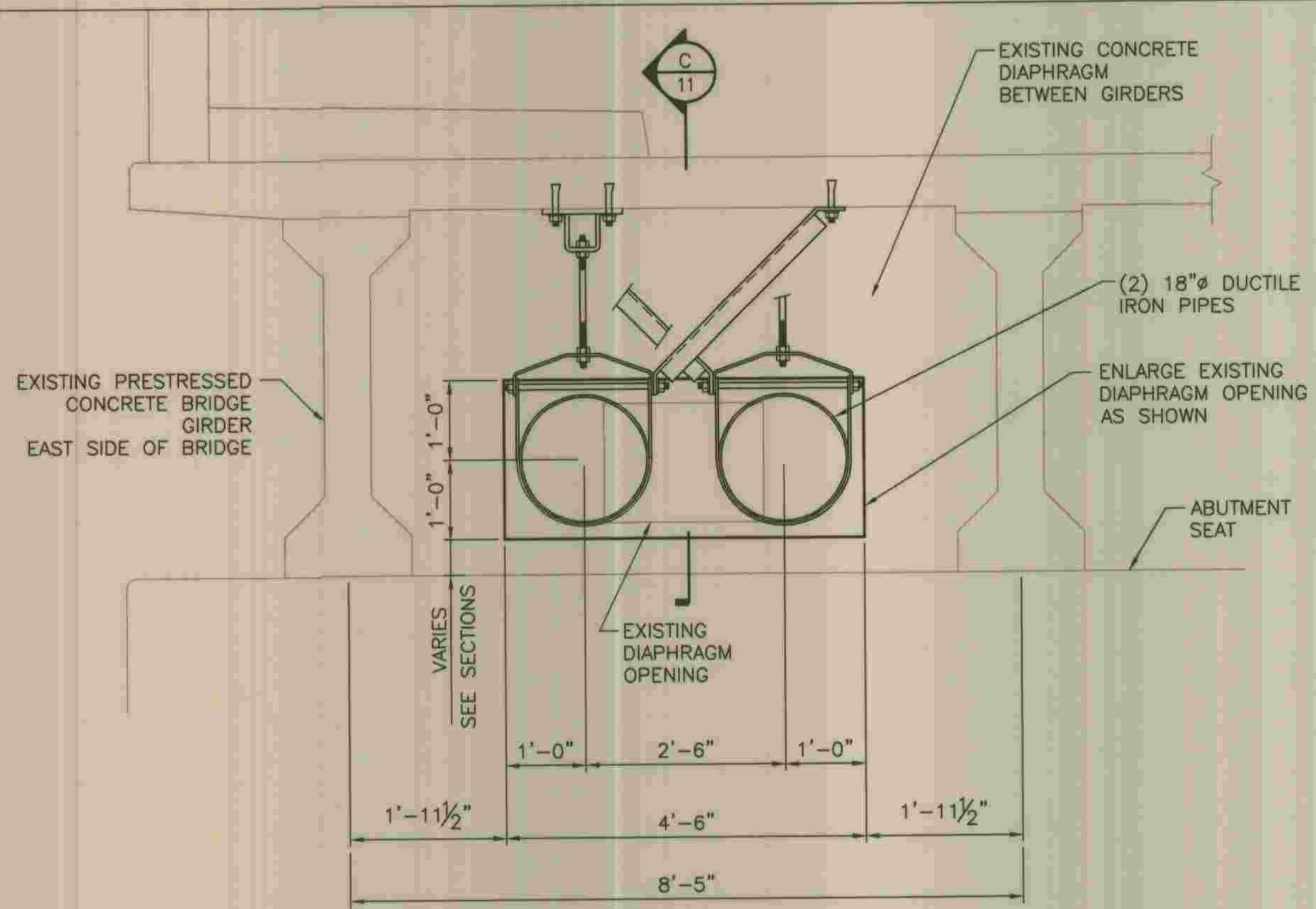
REVIEWED DESIGN DIVISION	BY <i>[Signature]</i>	DATE
REVIEWED LAND DEVELOPMENT DIVISION	BY <i>[Signature]</i>	DATE

NO.	REVISIONS	REVISED BY	APPROVED BY	DATE
Δ	REPLACED SIMPSON STRONG BOLT ANCHOR WITH HILTI ROD ASSEMBLY	J.F.V.	<i>[Signature]</i>	1/5/11

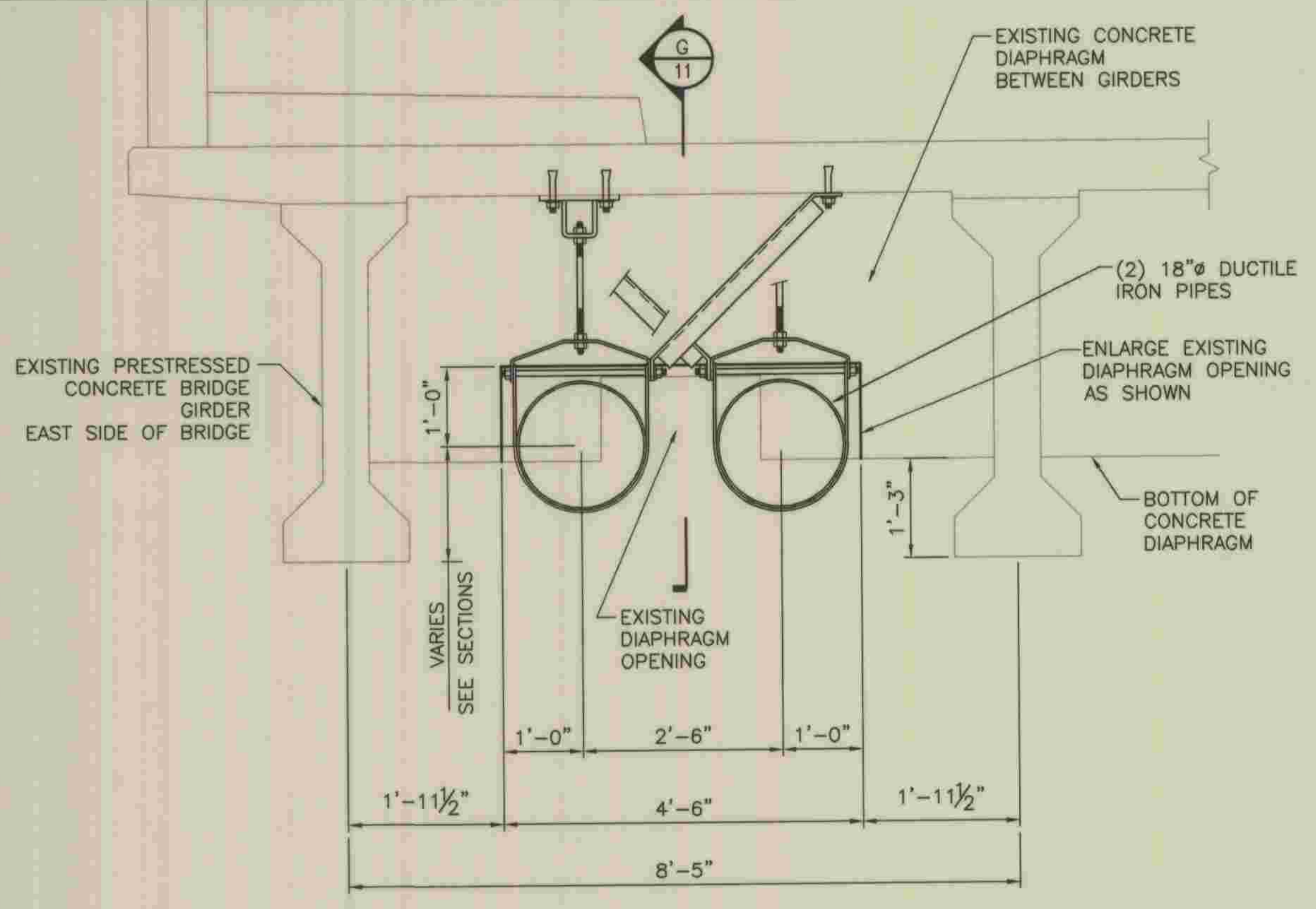
18" DIP BRIDGE CROSSING DETAILS
SANITARY SEWER PLANS
 COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
 PLANS PREPARED BY:
ALLIANCE
 LAND PLANNING & ENGINEERING INC.
 5962 LAPLACE CT.
 SUITE 130
 CARLSBAD, CA 92008
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TRACT NO. 26363 PAGE 11

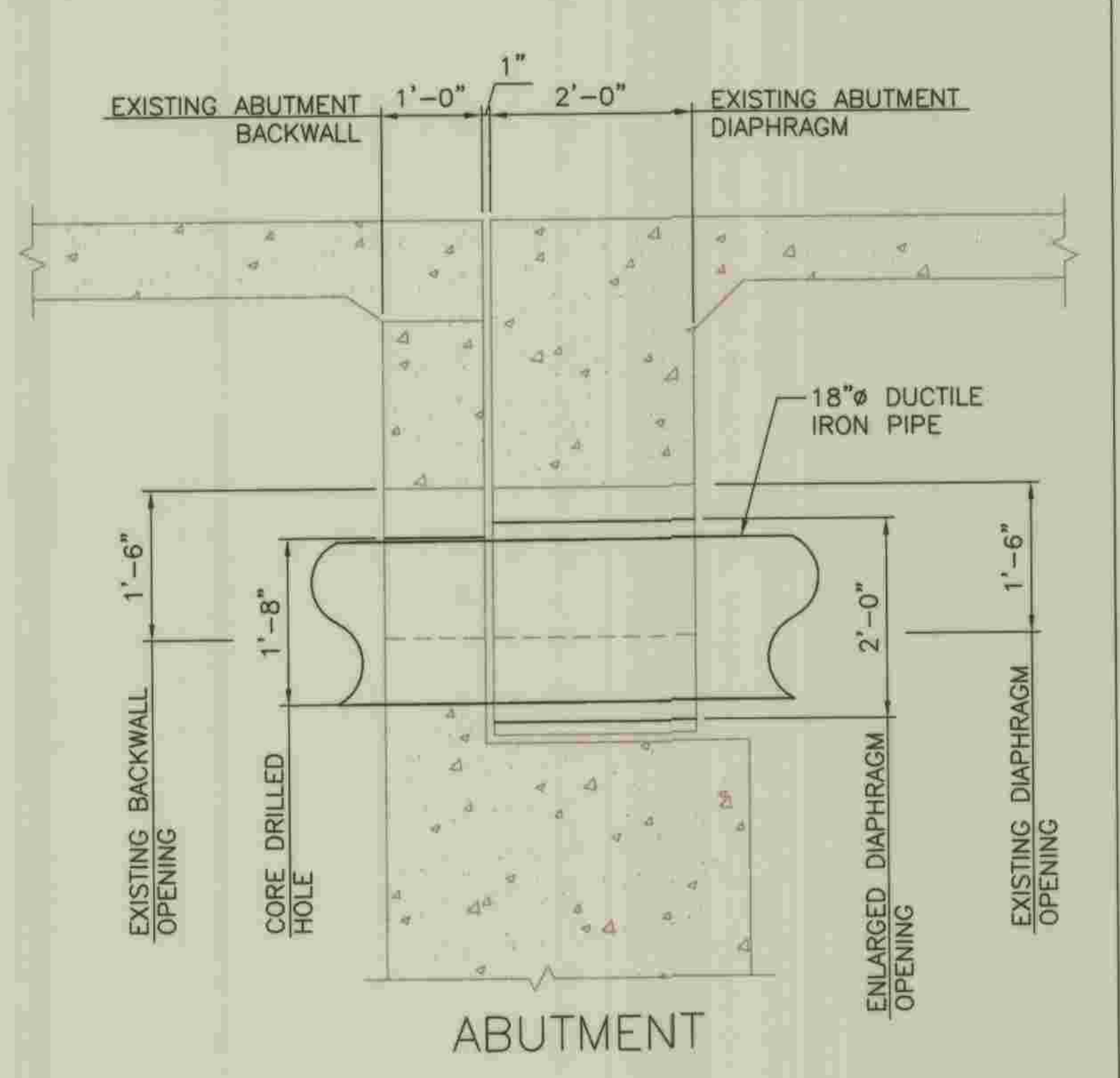
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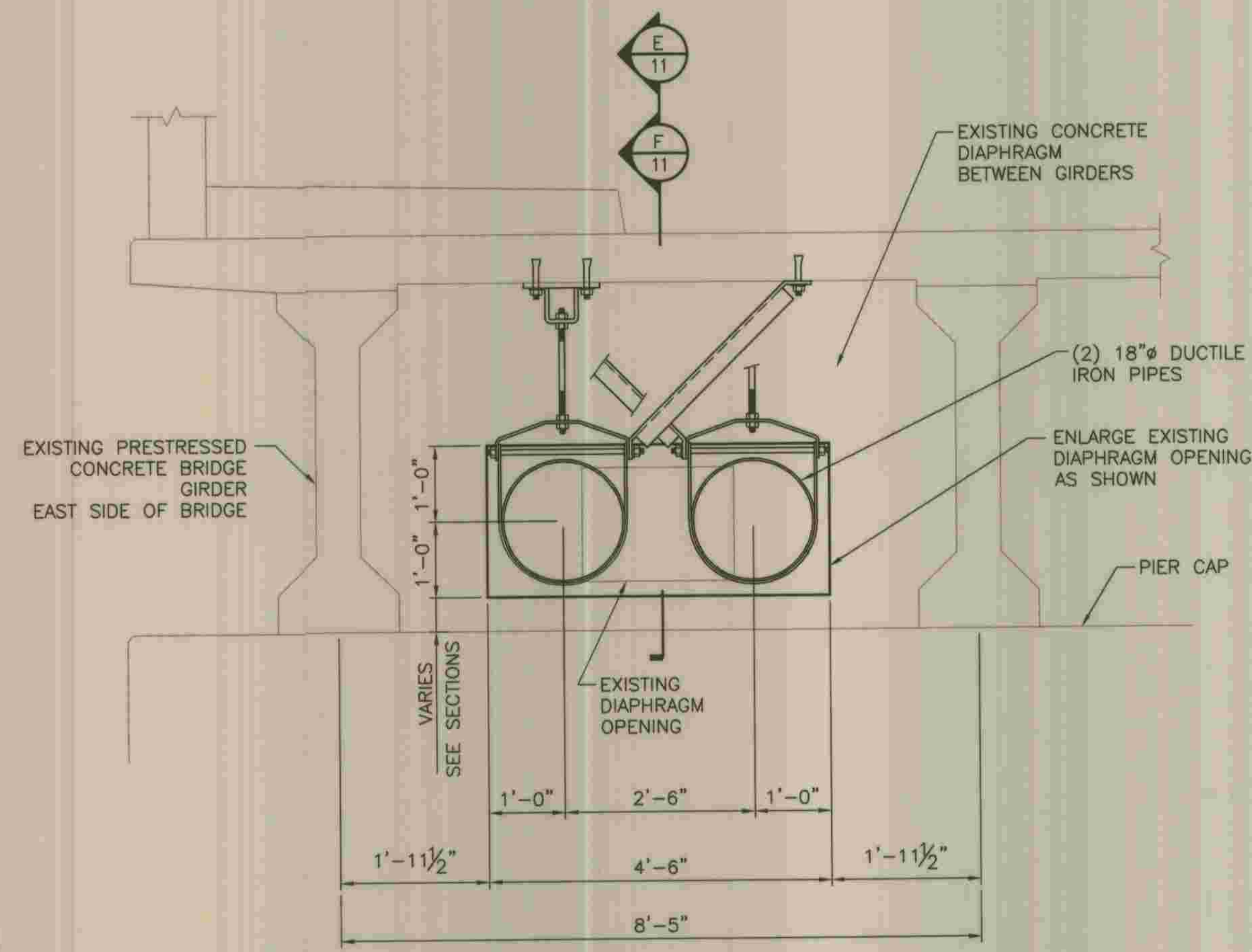
TYPICAL SECTION AT ABUTMENTS (A)
SCALE: 3/4" = 1'-0"



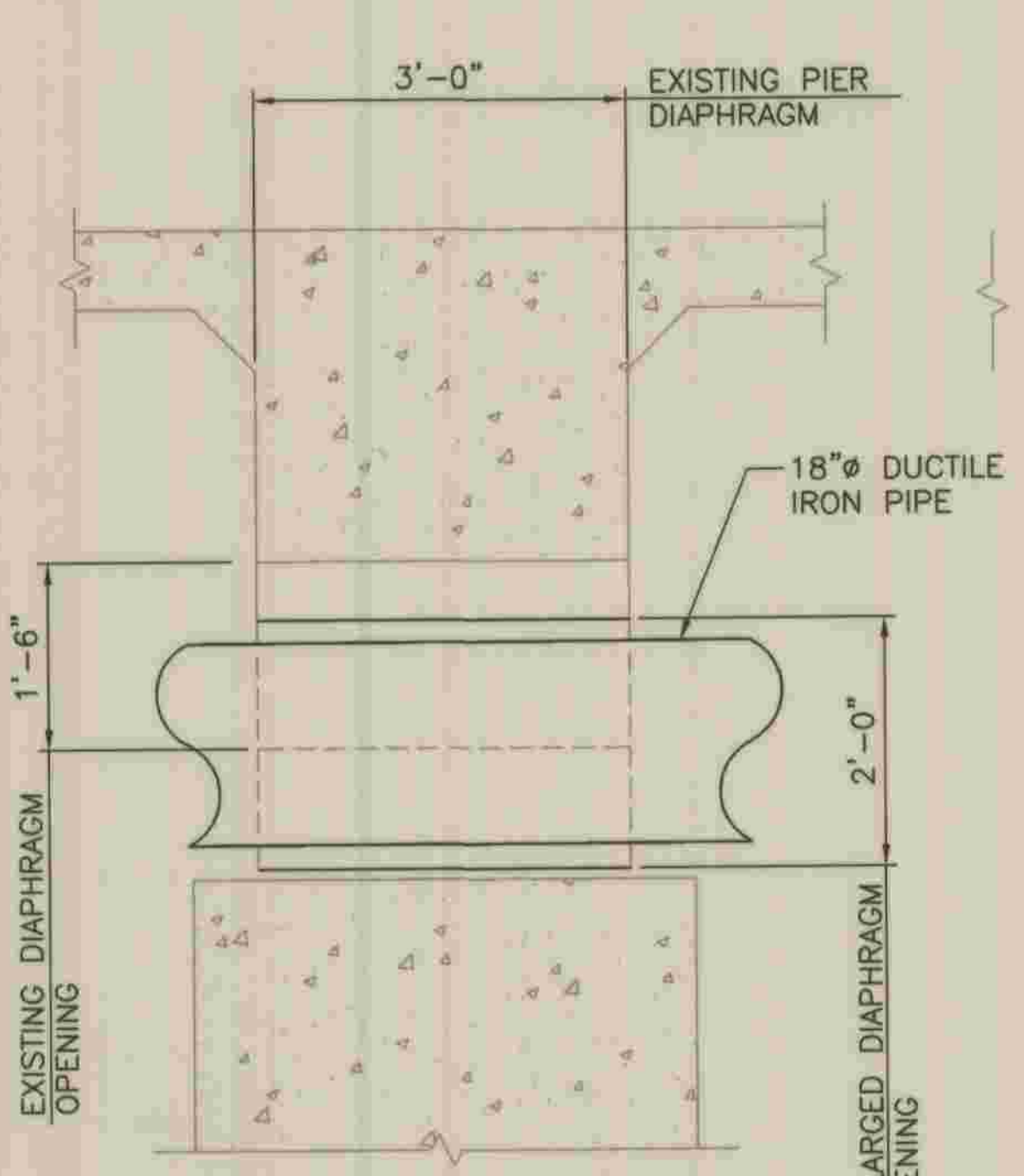
TYPICAL SECTION AT INTERMEDIATE DIAPHRAGMS (B)
SCALE: 3/4" = 1'-0"



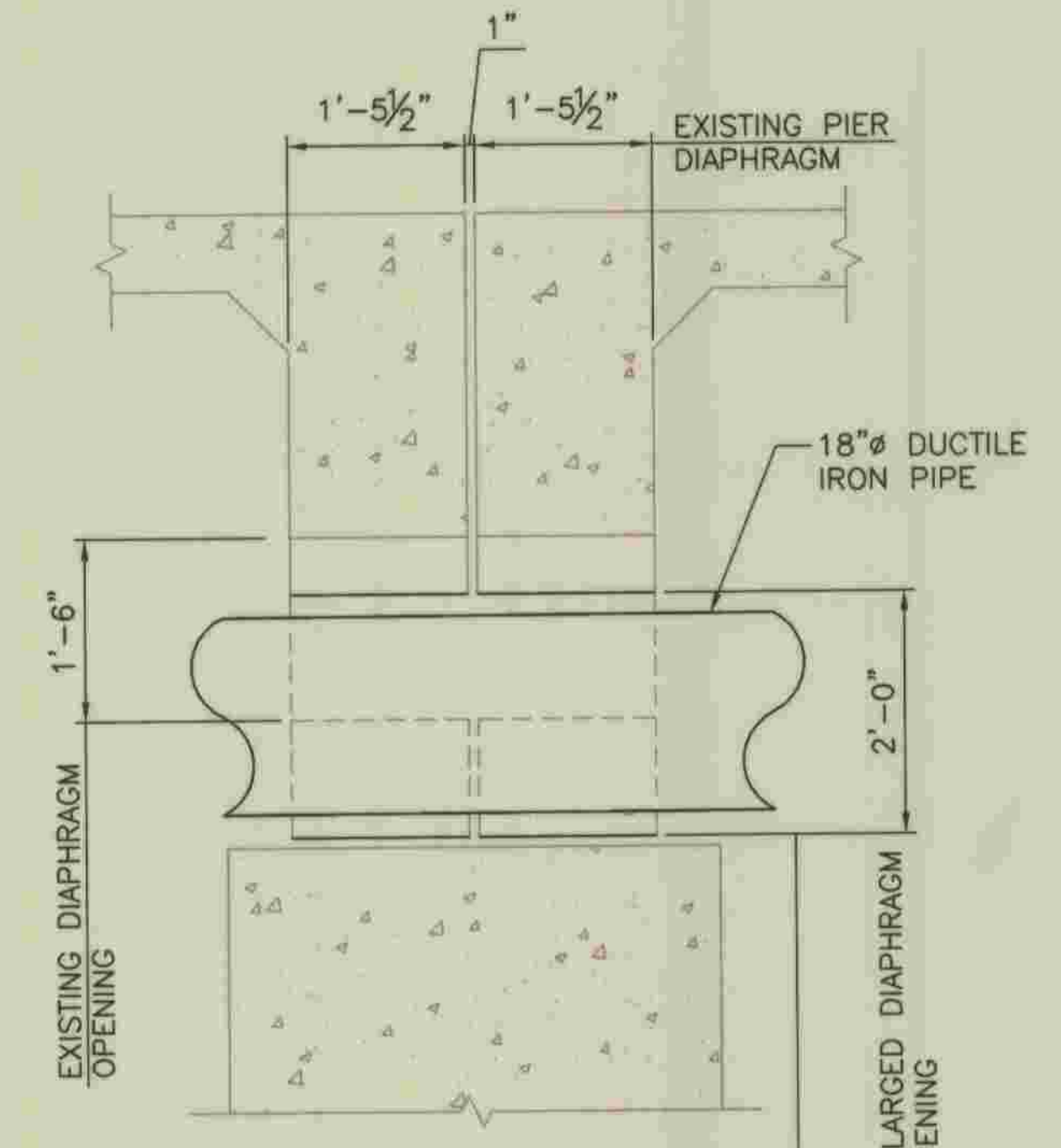
SECTION (C)
SCALE: 3/4" = 1'-0"



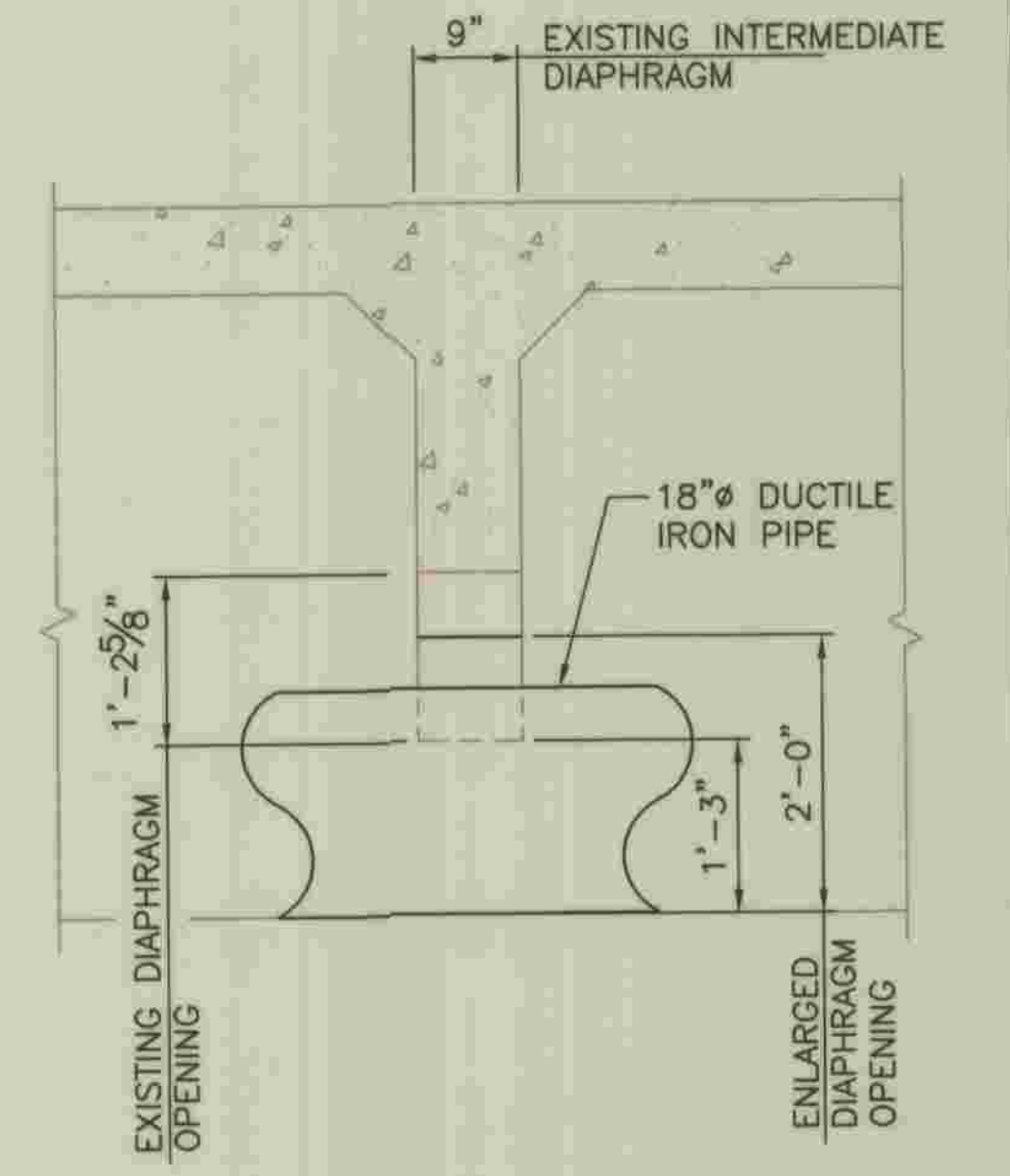
TYPICAL SECTION AT PIERS (D)
SCALE: 3/4" = 1'-0"



FIXED PIER (E)
SCALE: 3/4" = 1'-0"



EXPANSION PIER (F)
SCALE: 3/4" = 1'-0"



INTERMEDIATE DIAPHRAGM (G)
SCALE: 3/4" = 1'-0"

T.G.P.4549 GRID H1

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CONSULTING STRUCTURAL ENGINEERS
17150 VIA DEL CAMPO, SUITE 308
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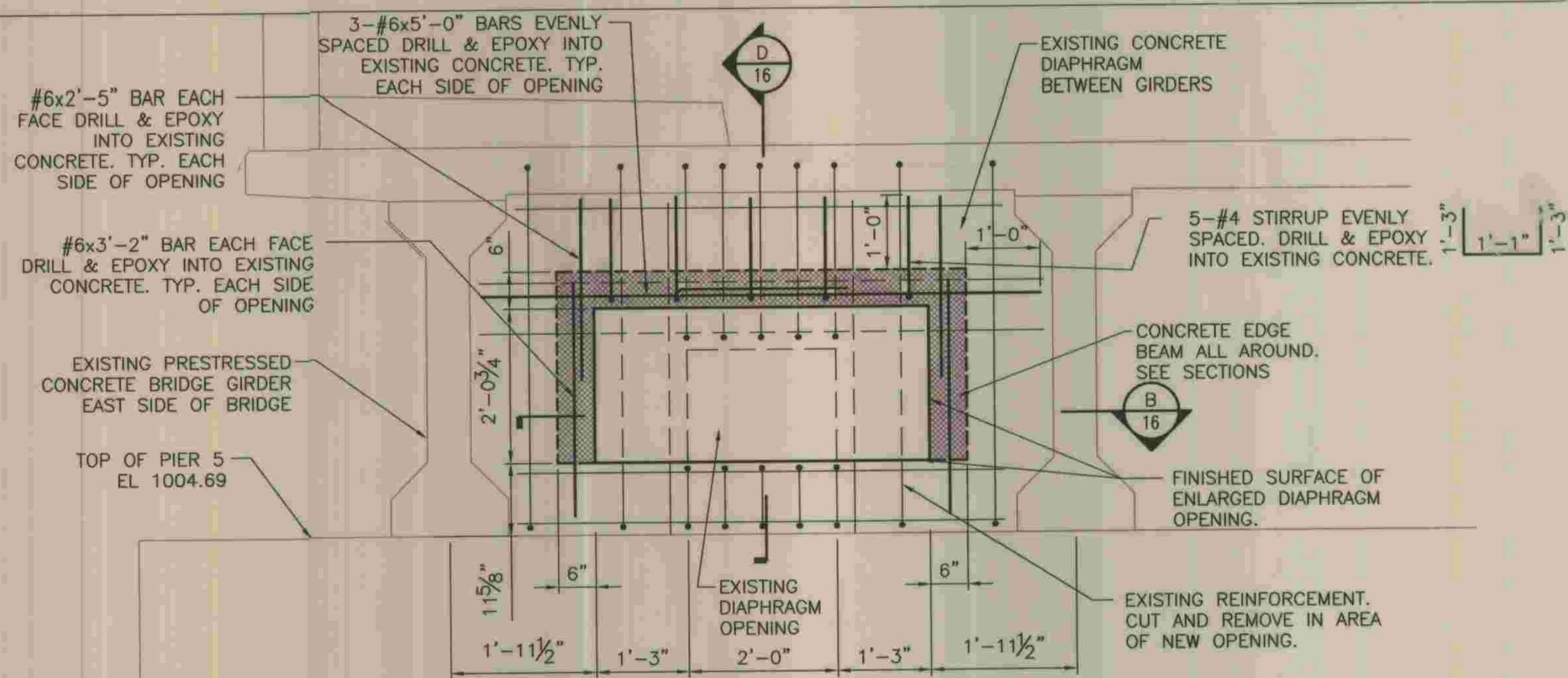
REVIEWED DESIGN DIVISION	BY: <i>[Signature]</i>	DATE: 10-25-07
REVIEWED LAND DEVELOPMENT DIVISION	BY: <i>[Signature]</i>	DATE: 10-25-07

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18" DIP BRIDGE CROSSING DETAILS
SANITARY SEWER PLANS
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
PLANS PREPARED BY:
ALLIANCE
LAND PLANNING & ENGINEERING, INC.
5962 LAPLACE CT.
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CARLSBAD, CA 92008
TEL: (760) 431-9896
E-MAIL: cwhittaker@allianceeng.com

TRACT NO. 26363 PAGE 12

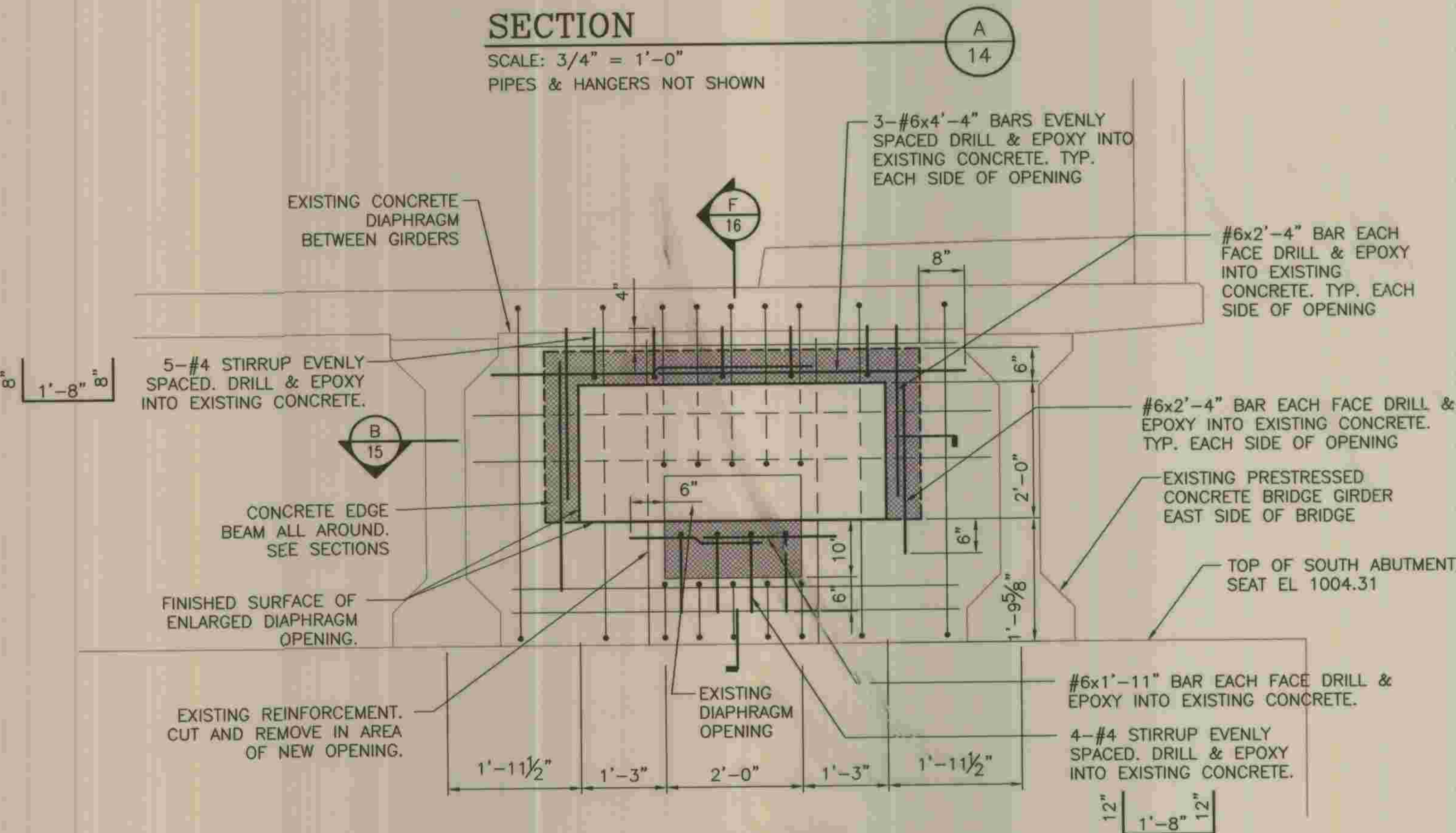


PIER 3 DIAPHRAGM AT EXPANSION JOINT

REINFORCEMENT SHOWN IS TYPICAL IN 2 DIAPHRAGMS. ONE ON EACH SIDE OF EXPANSION JOINT. SEE SECTIONS

SECTION

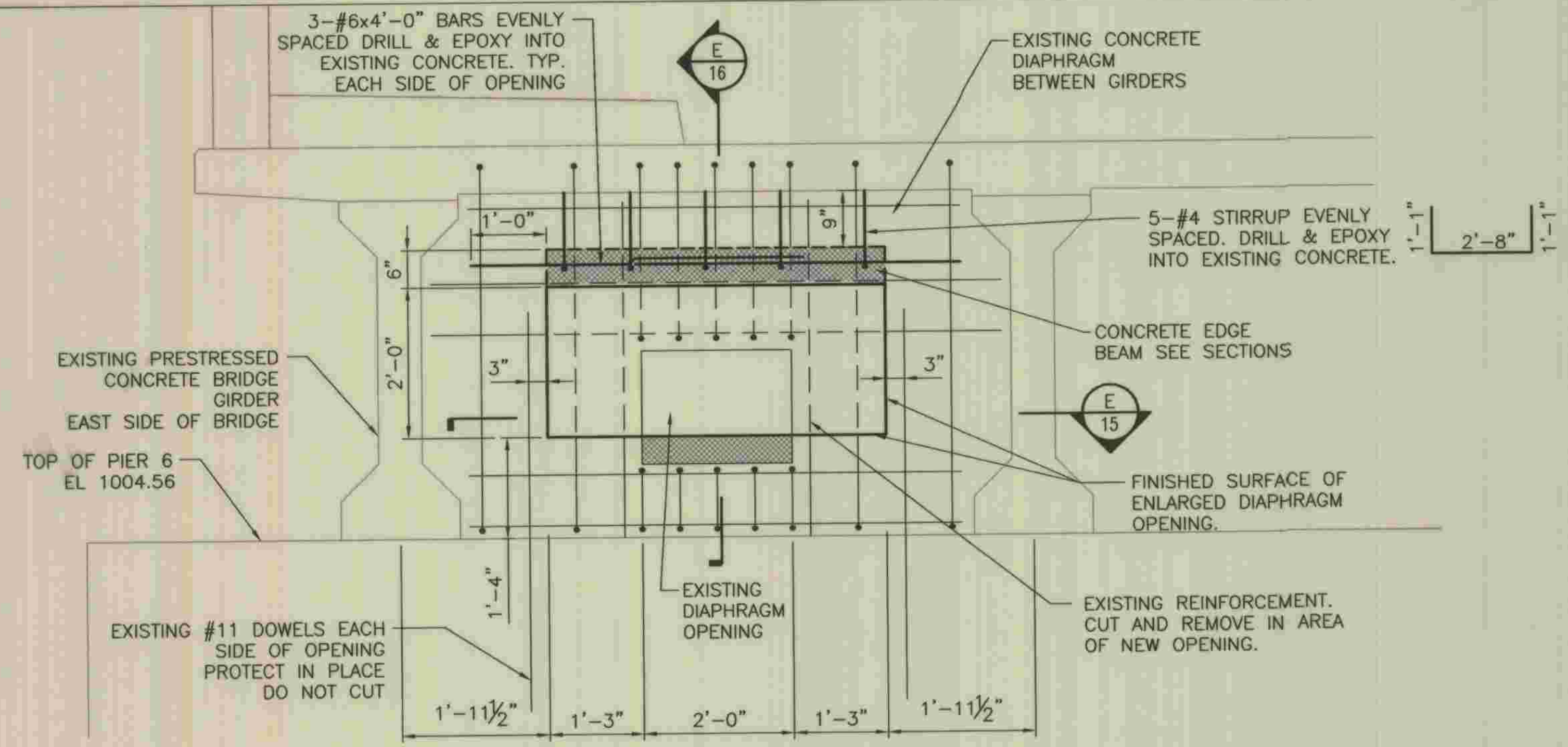
SCALE: 3/4" = 1'-0"
PIPES & HANGERS NOT SHOWN



NORTH ABUTMENT DIAPHRAGM ABUTMENT 1

SECTION

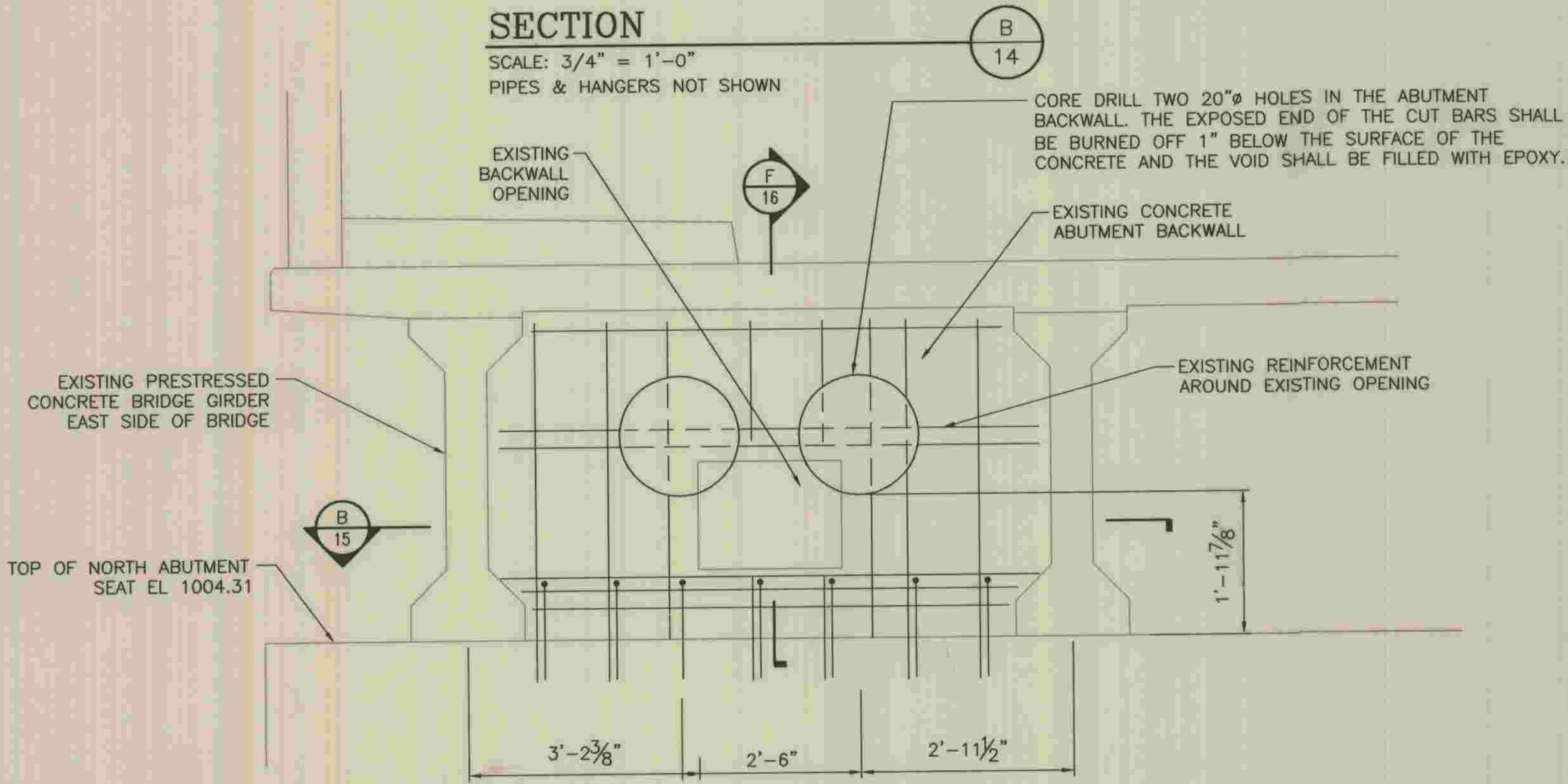
SCALE: 3/4" = 1'-0"
PIPES & HANGERS NOT SHOWN



PIER 2 DIAPHRAGM

SECTION

SCALE: 3/4" = 1'-0"
PIPES & HANGERS NOT SHOWN



NORTH ABUTMENT BACKWALL

SECTION

SCALE: 3/4" = 1'-0"
PIPES & HANGERS NOT SHOWN

18" DIP BRIDGE CROSSING SECTIONS

SANITARY SEWER PLANS

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

PLANS PREPARED BY:



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CARLSBAD, CA 92008
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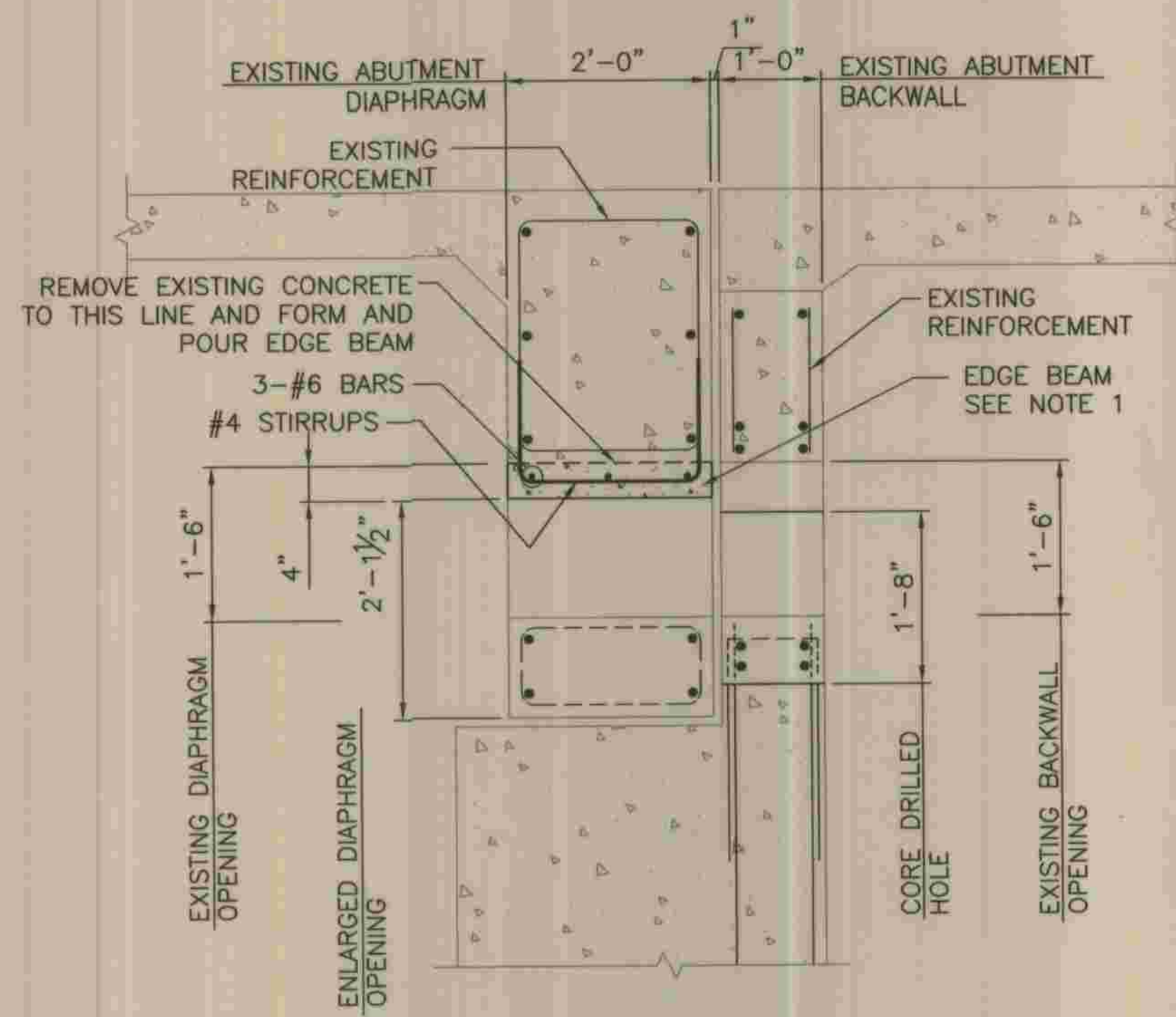
R₂H ENGINEERING, INC.
CONSULTING STRUCTURAL ENGINEERS
17150 VIA DEL CAMPO, SUITE 306
SAN DIEGO, CA 92127
PHONE (858) 673-8416
FAX (858) 673-8418

REVIEWED DESIGN DIVISION	BY: <i>[Signature]</i>	DATE: 10-25-07
REVIEWED LAND DEVELOPMENT DIVISION	BY: <i>[Signature]</i>	DATE: 10-25-07

NO.	REVISIONS	REVISED BY	APPROVED BY	DATE

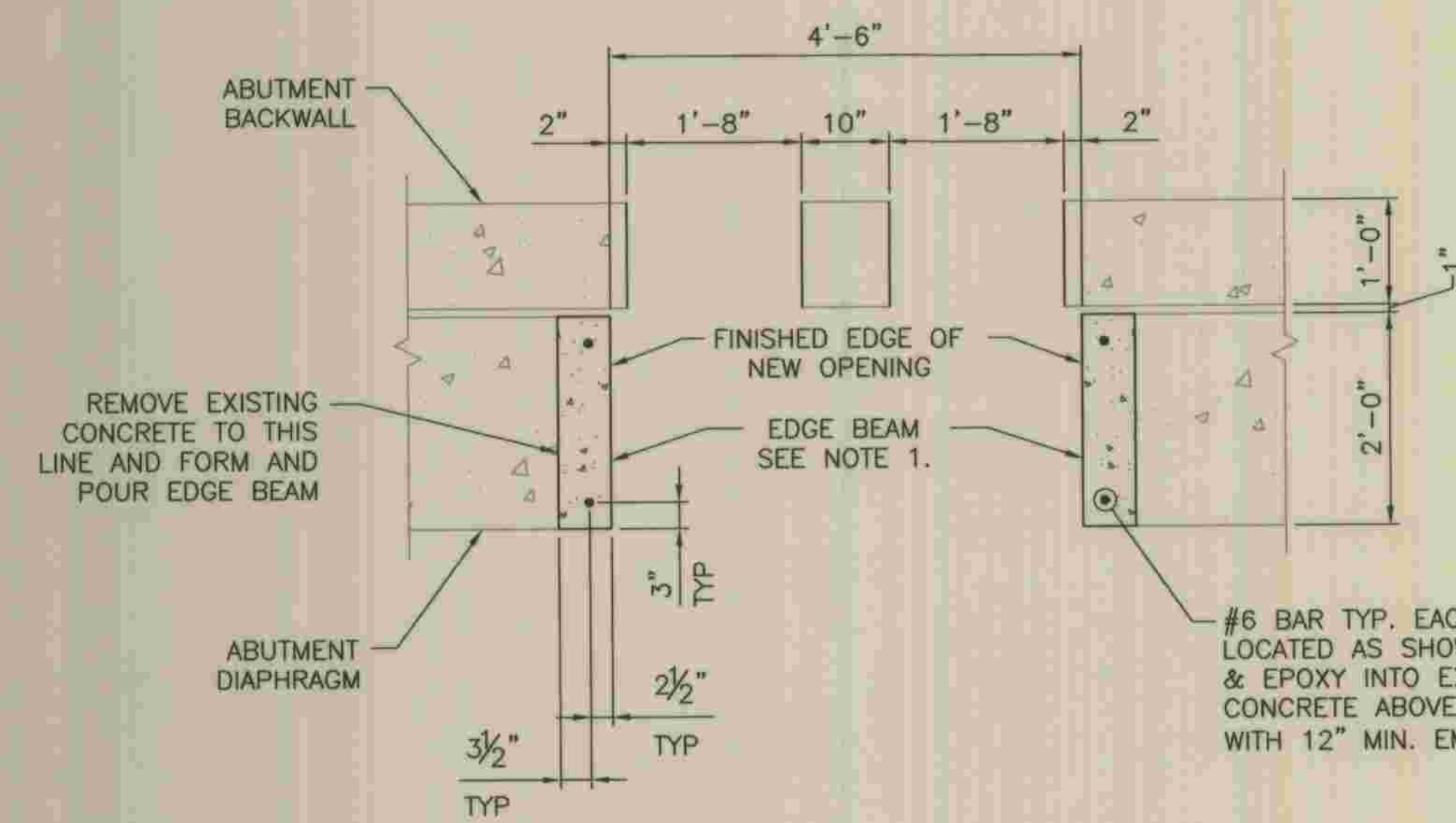
REGISTERED PROFESSIONAL ENGINEER
DONALD WEINGART
No. 53616
Exp. 6/30/09
STRUCTURAL
STATE OF CALIFORNIA
[Signature]
PROJECT ENGINEER DATE

11 58285 00 90M 24811 30 11842 BYBCEC MAY 10 58282 11



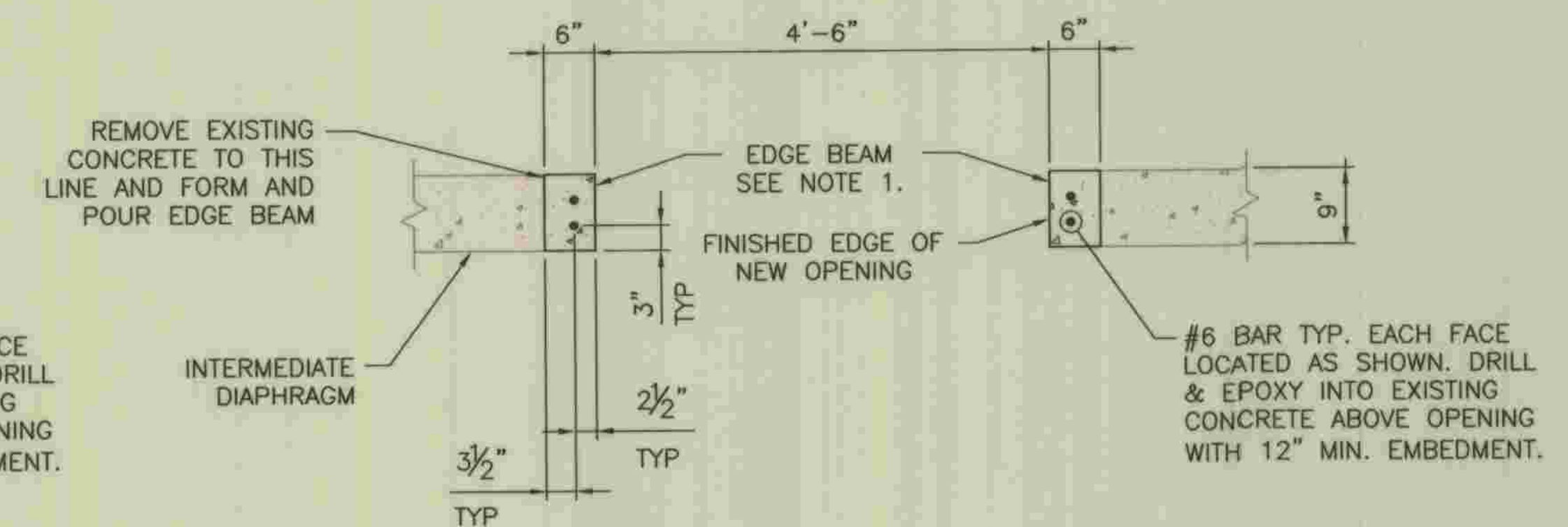
SOUTH ABUTMENT

SECTION A
SCALE: 3/4" = 1'-0" 15



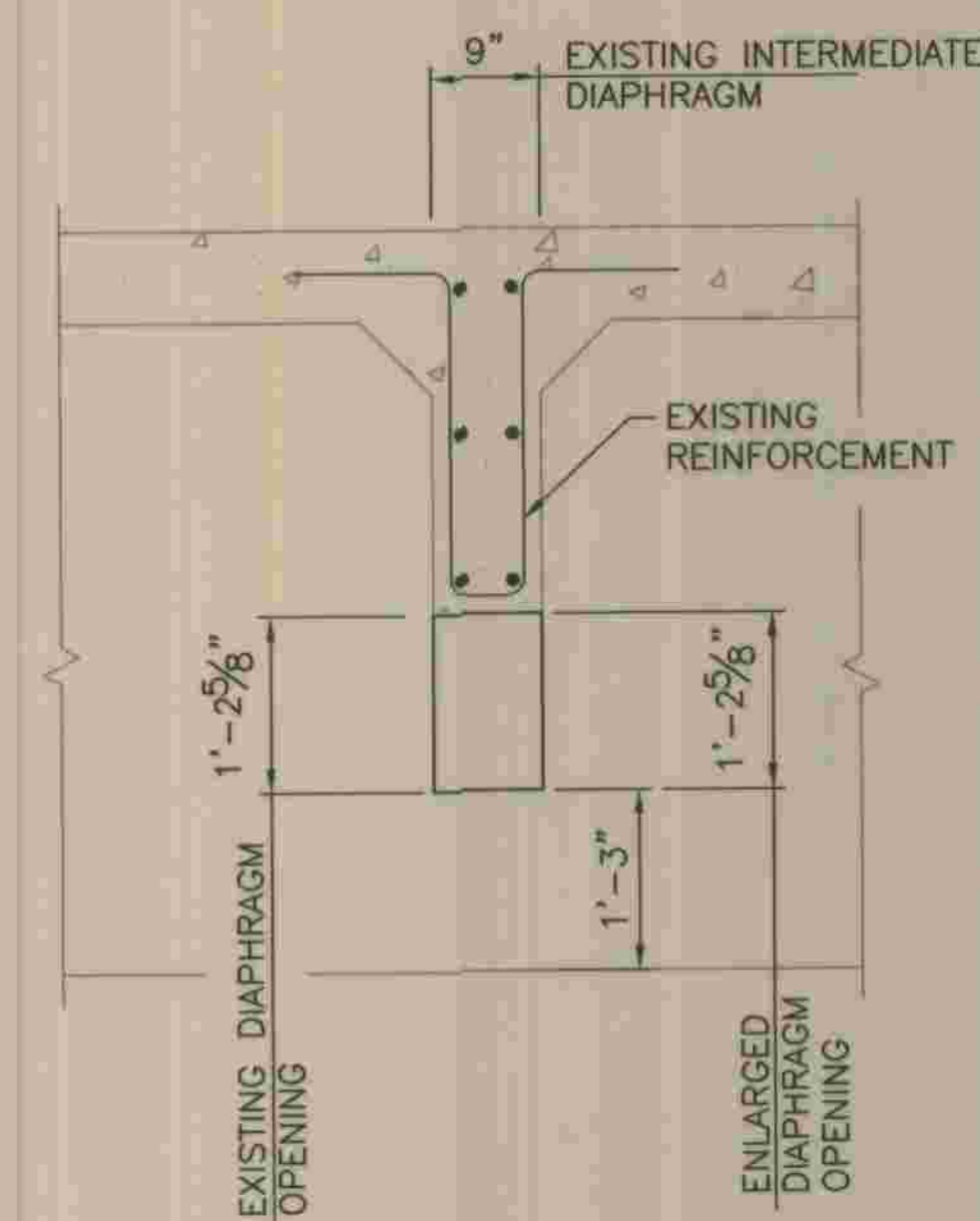
ABUTMENTS

SECTION B
SCALE: 3/4" = 1'-0" 15



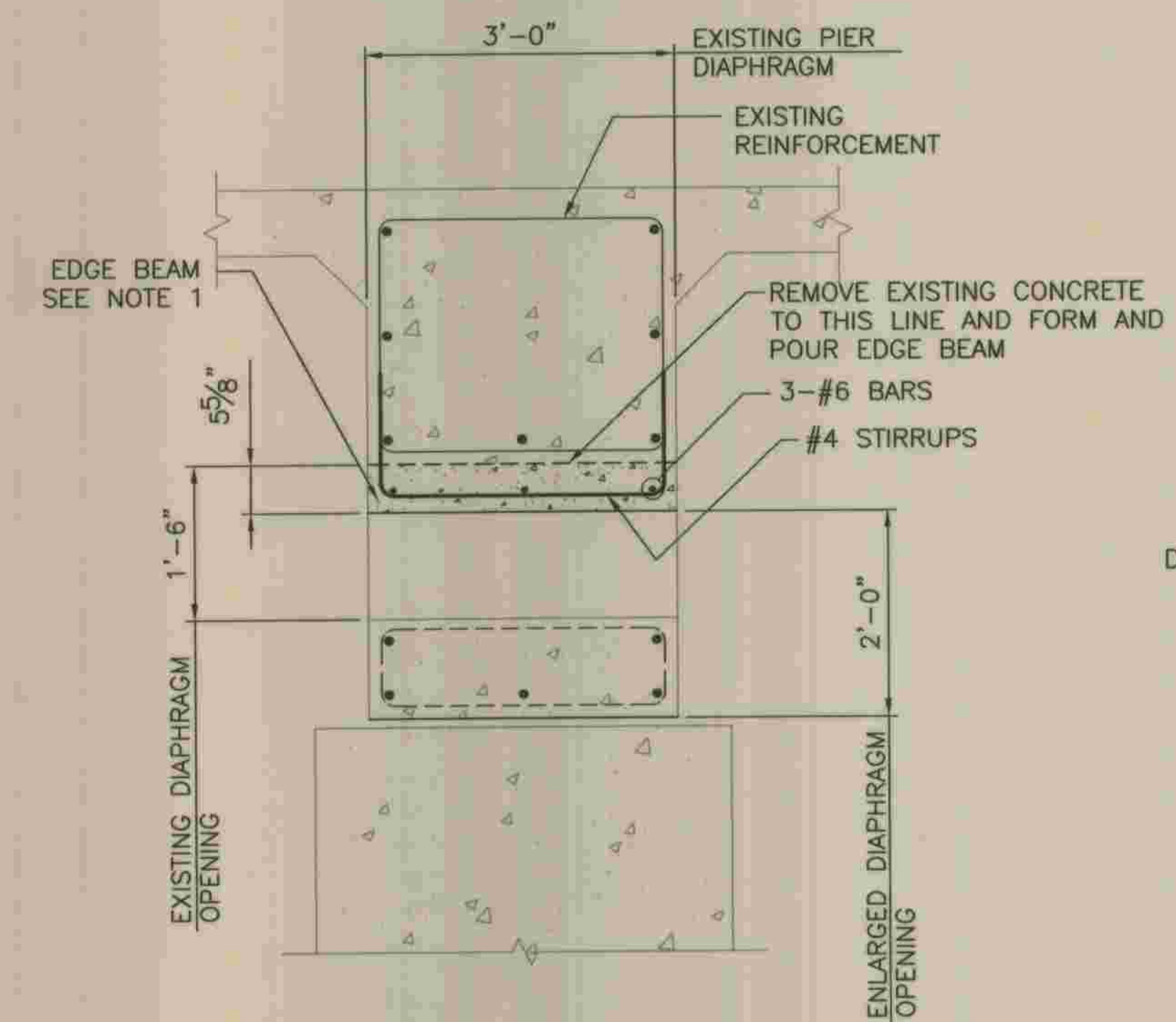
INTERMEDIATE DIAPHRAGM

SECTION G
SCALE: 3/4" = 1'-0" 15



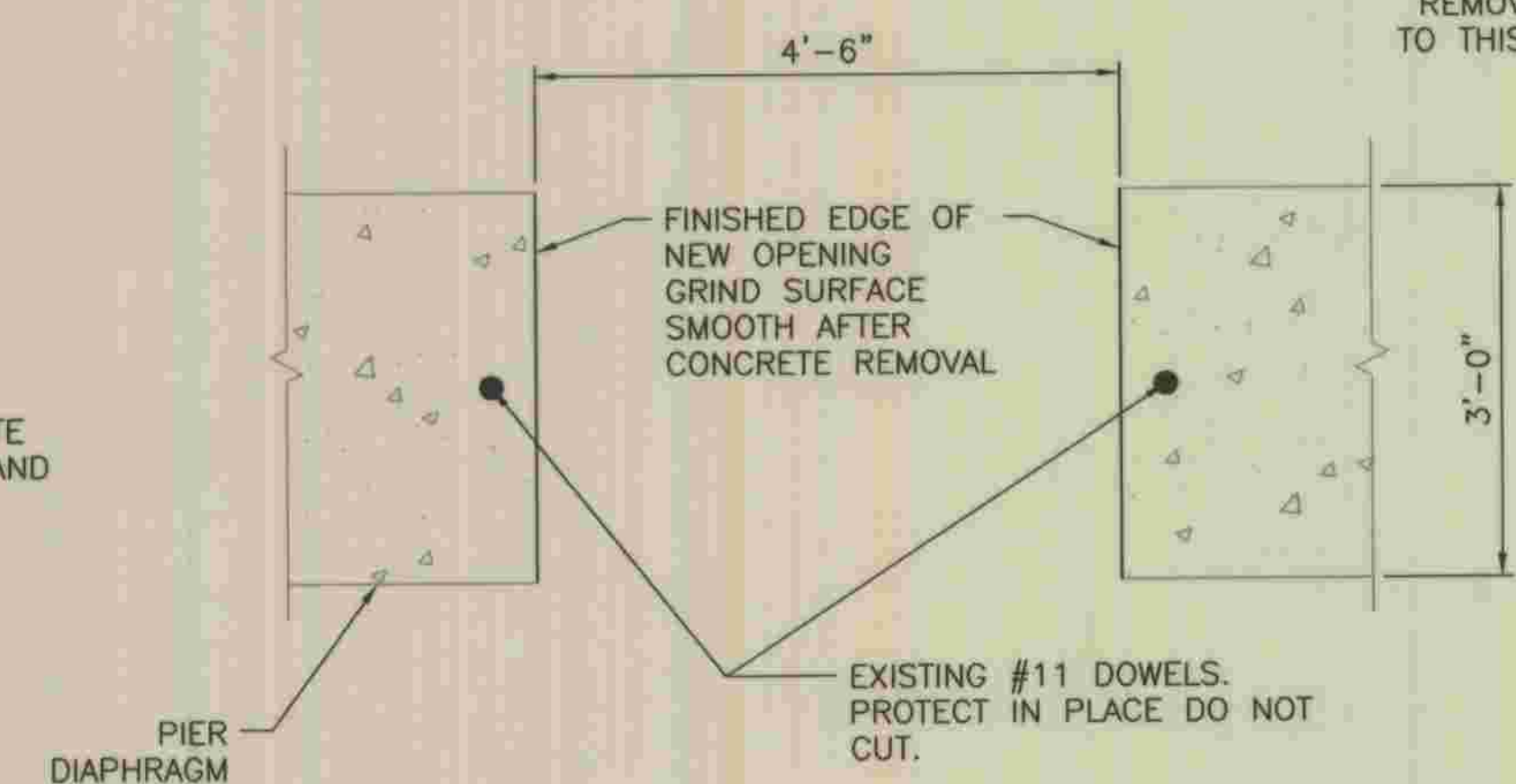
INTERMEDIATE DIAPHRAGM

SECTION C
SCALE: 3/4" = 1'-0" 15



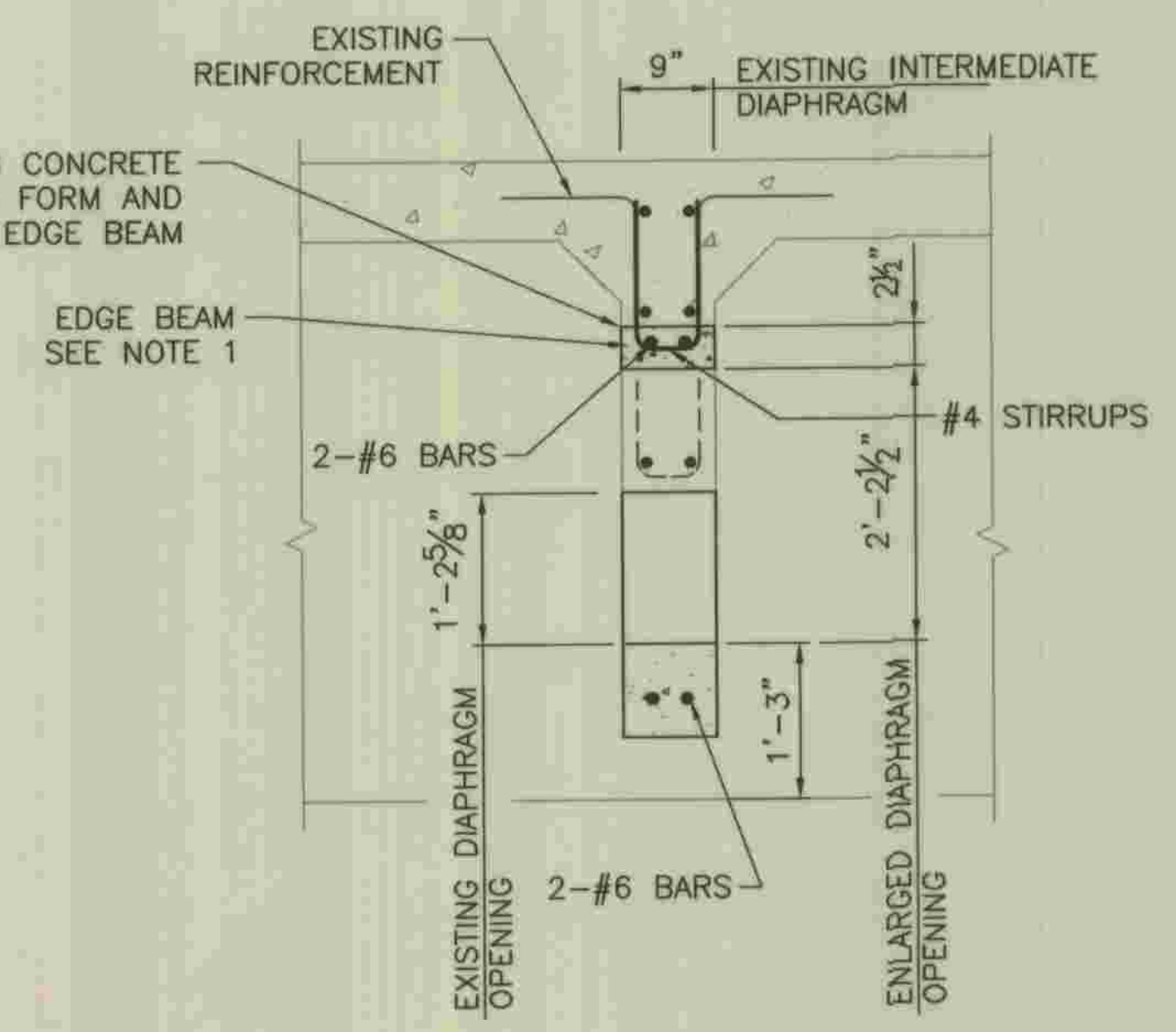
FIXED PIER

SECTION D
SCALE: 3/4" = 1'-0" 15



FIXED PIER

SECTION E
SCALE: 3/4" = 1'-0" 15



INTERMEDIATE DIAPHRAGM

SECTION F
SCALE: 3/4" = 1'-0" 15

- NOTES**
1. CONCRETE FOR EDGE BEAMS SHALL BE A 4000 PSI MIX WITH 3/8" MAXIMUM AGGREGATE SIZE. THE CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 2". A SUPERPLASTICIZER SHALL BE ADDED BEFORE PLACING THE CONCRETE TO INCREASE THE SLUMP TO 8".

T.G.P.4549 GRID H1

18" DIP BRIDGE CROSSING SECTIONS

SANITARY SEWER PLANS

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

PLANS PREPARED BY:



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PAGE 16

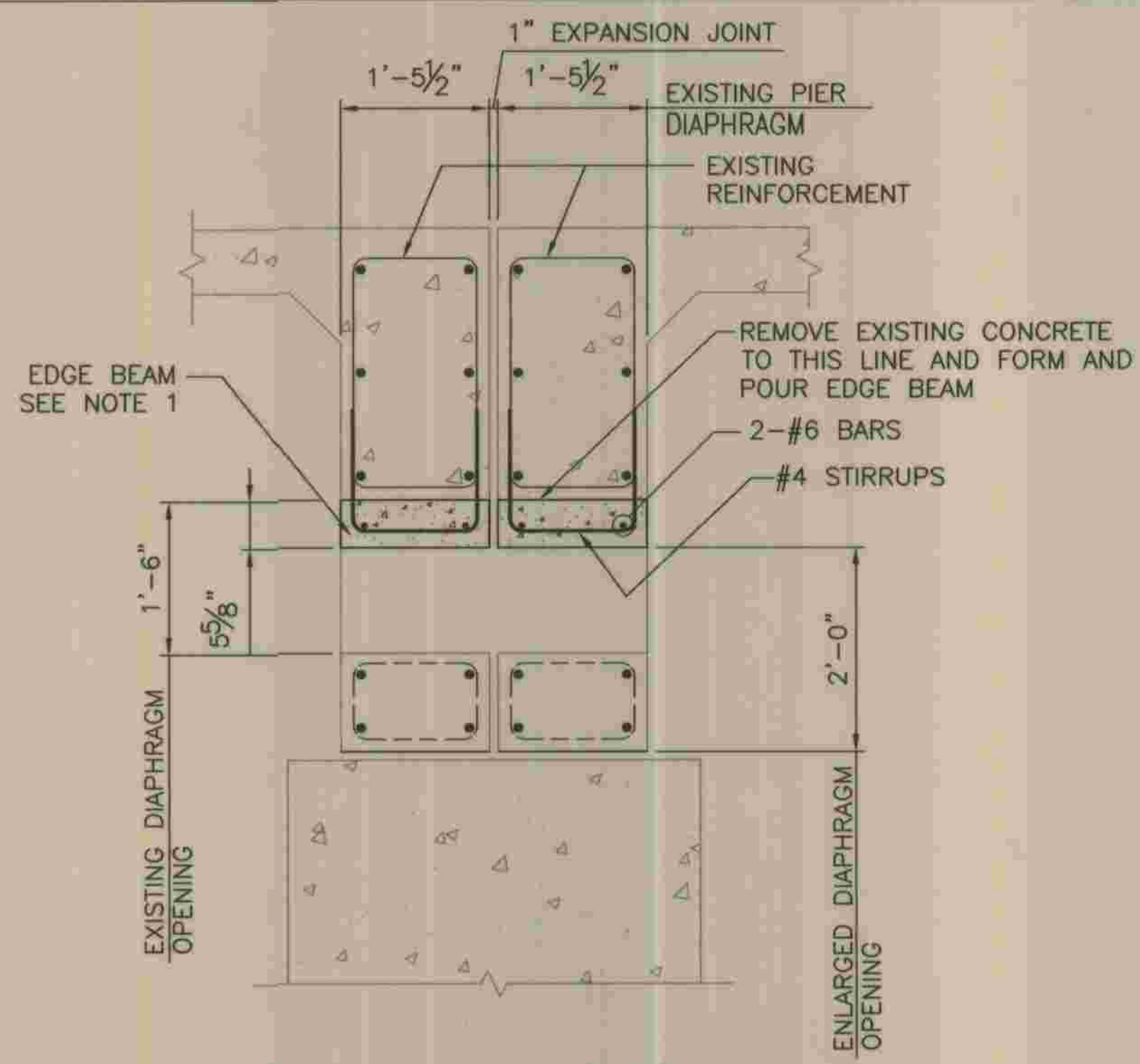
R₂H ENGINEERING, INC.
CONSULTING STRUCTURAL ENGINEERS
17150 VIA DEL CAMPO, SUITE 306
SAN DIEGO, CA 92127
PHONE (858) 673-8416
FAX (858) 673-8418

REVIEWED DESIGN DIVISION	BY: <i>[Signature]</i>	DATE: 10-25-07
REVIEWED LAND DEVELOPMENT DIVISION	BY: <i>[Signature]</i>	DATE: 10-25-07

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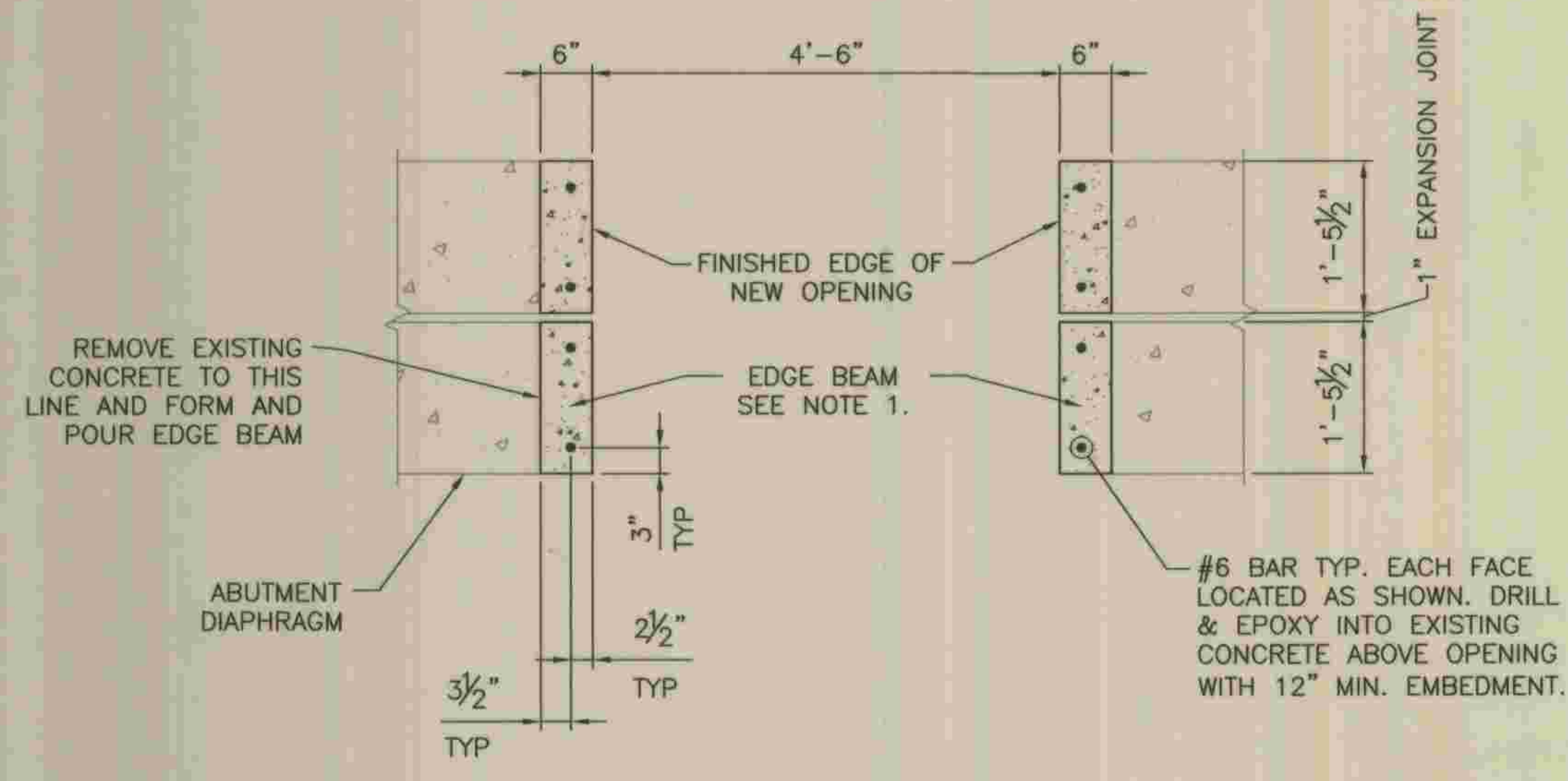
REGISTERED PROFESSIONAL ENGINEER
DANIEL WEINGART
No. S3616
Exp. 6/30/09
STRUCTURAL
STATE OF CALIFORNIA

[Signature]
PROJECT ENGINEER



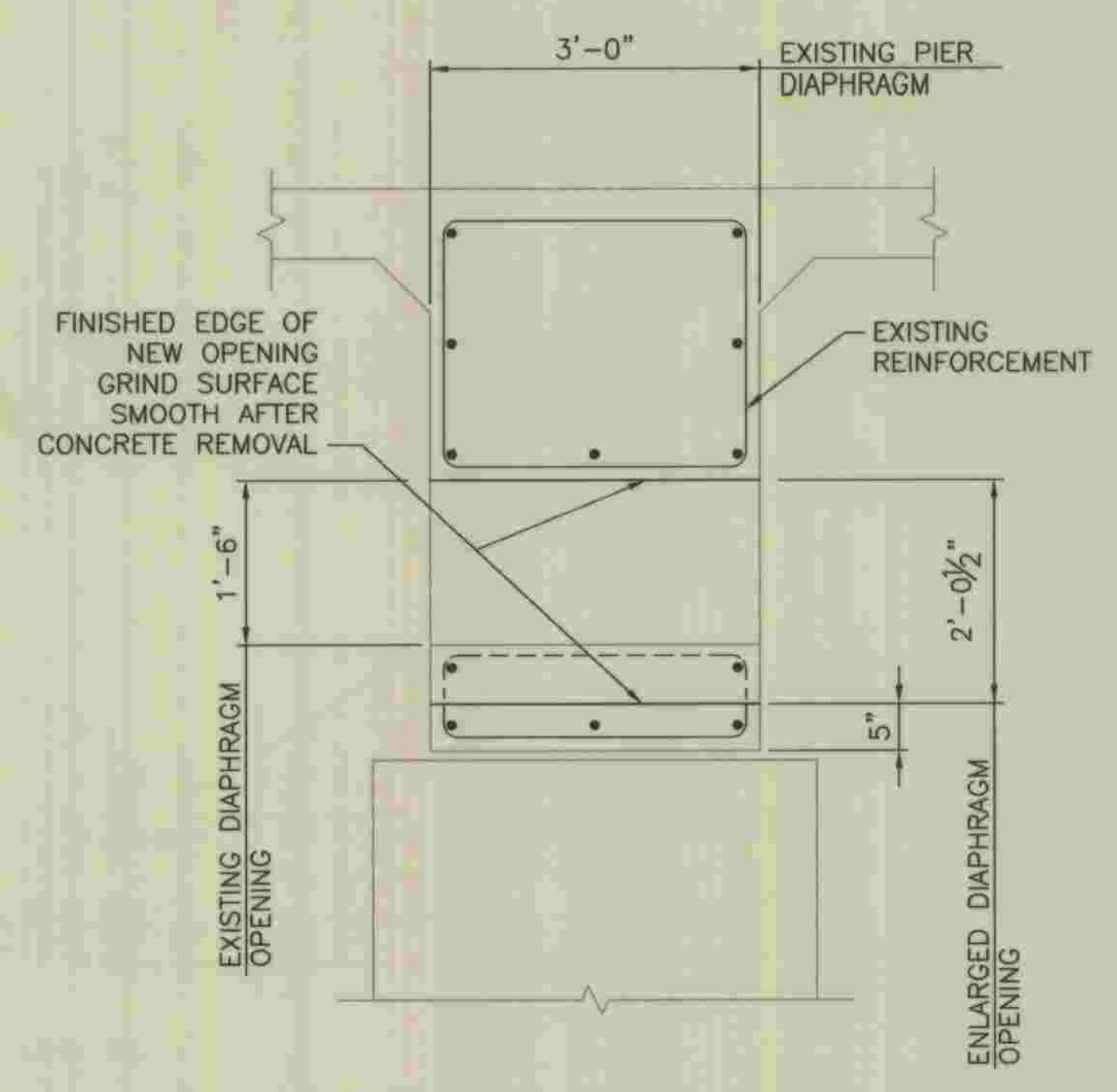
EXPANSION PIER

SECTION A
SCALE: 3/4" = 1'-0"
16



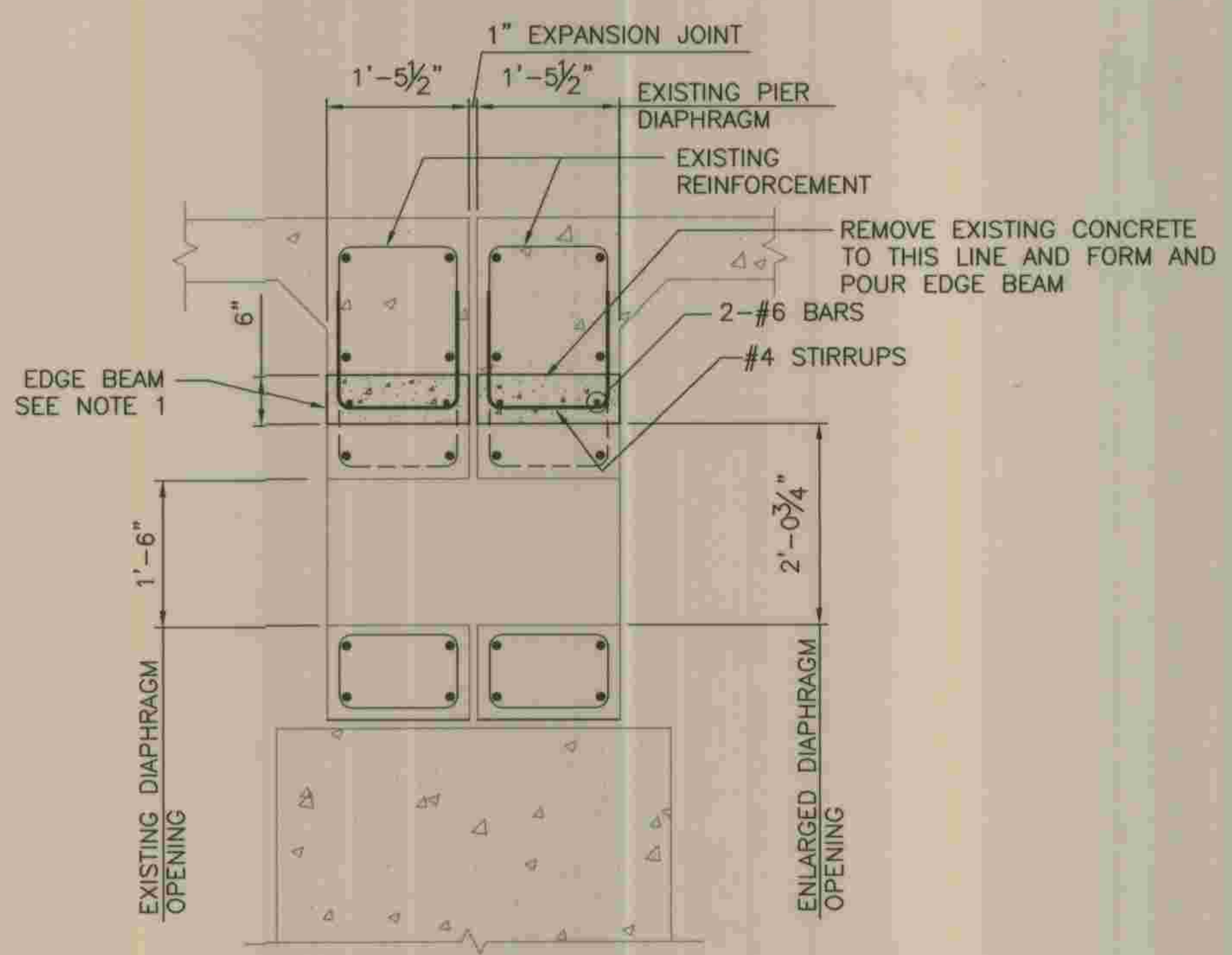
EXPANSION PIER

SECTION B
SCALE: 3/4" = 1'-0"
16



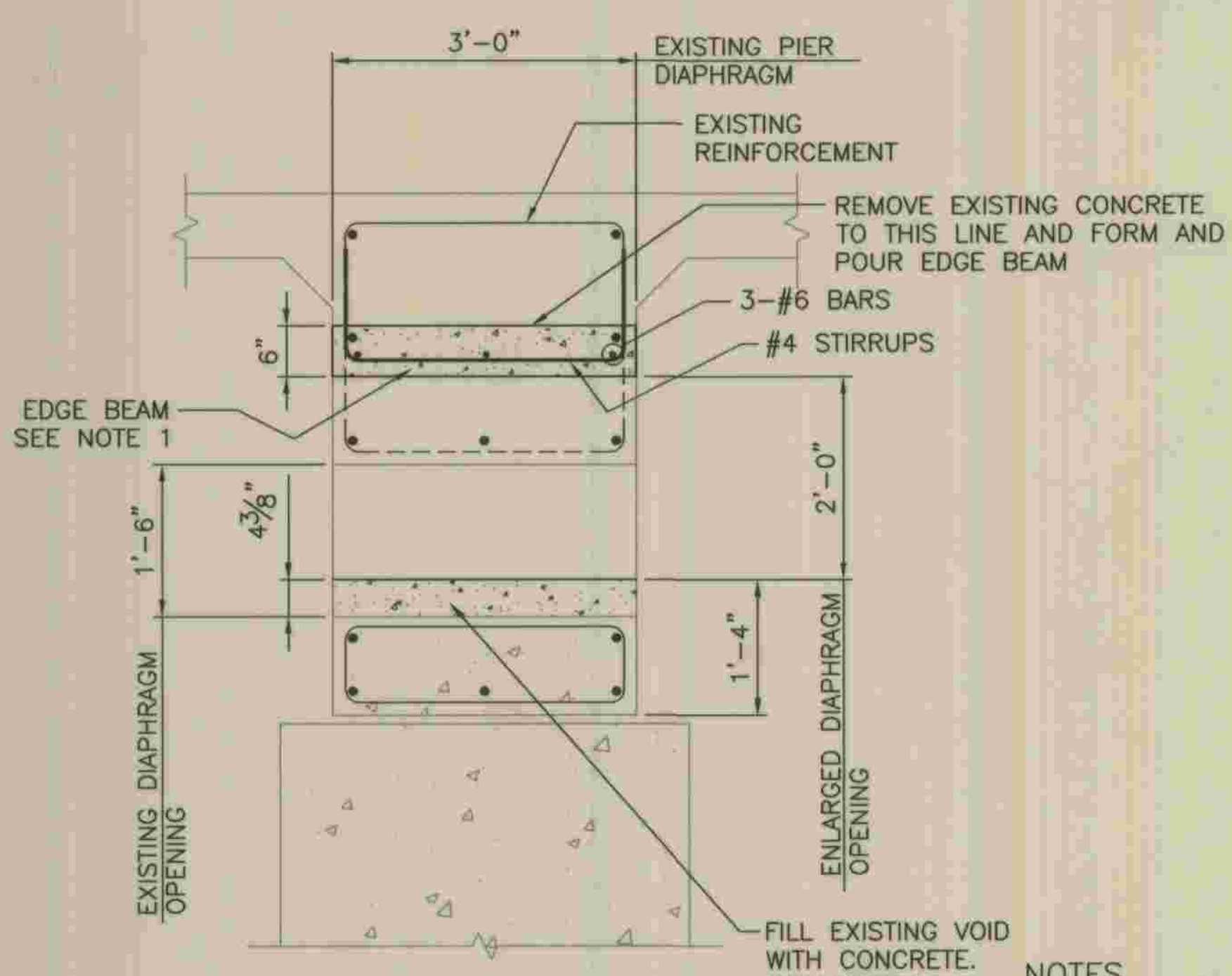
FIXED PIER

SECTION C
SCALE: 3/4" = 1'-0"
16



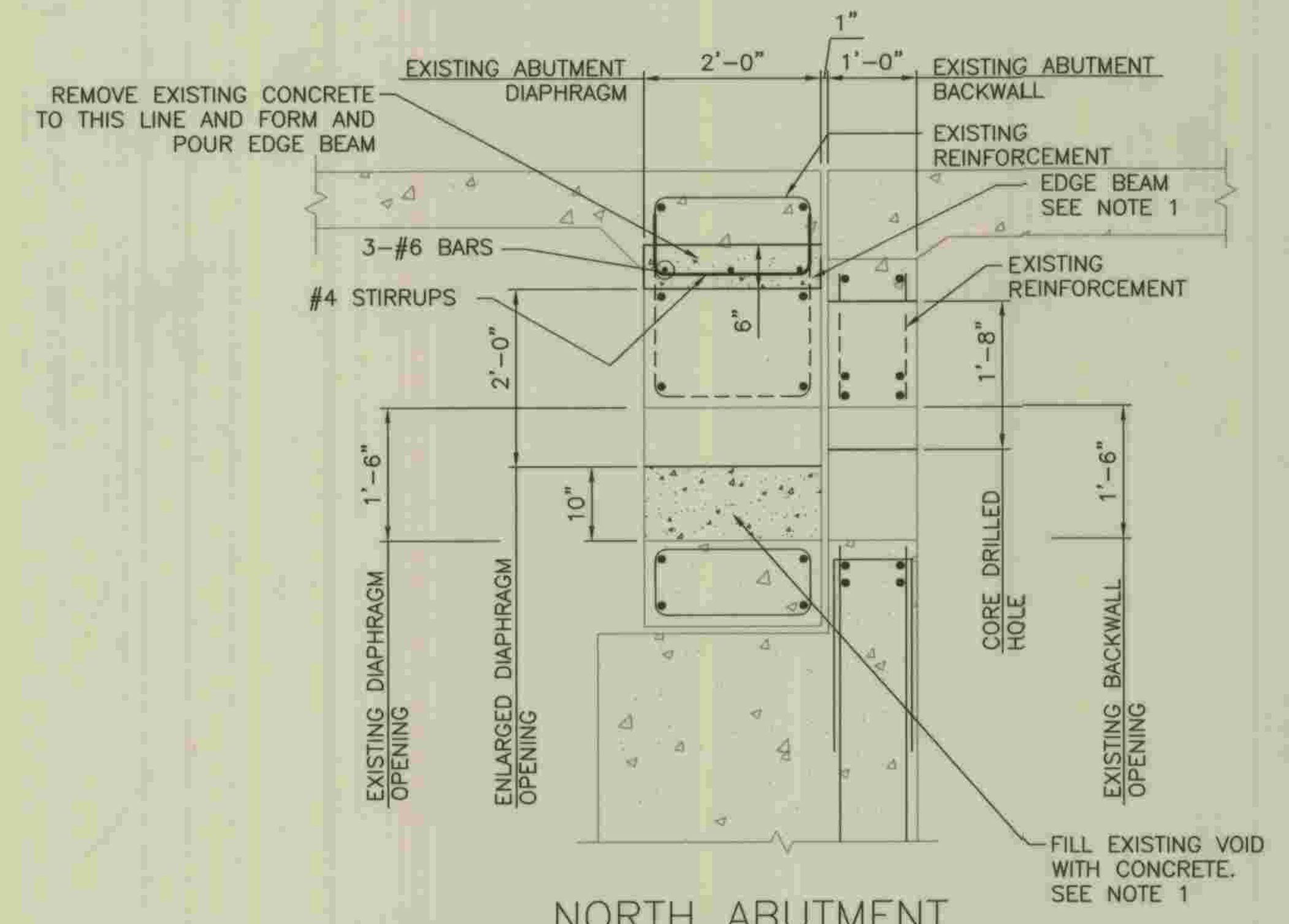
EXPANSION PIER

SECTION D
SCALE: 3/4" = 1'-0"
16



FIXED PIER

SECTION E
SCALE: 3/4" = 1'-0"
16



NORTH ABUTMENT
SECTION F

SCALE: 3/4" = 1'-0"
16

- NOTES**
1. CONCRETE FOR EDGE BEAMS SHALL BE A 4000 PSI MIX WITH 3/8" MAXIMUM AGGREGATE SIZE. THE CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 2". A SUPERPLASTICIZER SHALL BE ADDED BEFORE PLACING THE CONCRETE TO INCREASE THE SLUMP TO 8".

T.G.P. 4549 GRID H1

18" DIP BRIDGE CROSSING SECTIONS

SANITARY SEWER PLANS

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

PLANS PREPARED BY:

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TRACT NO. 26363 PAGE 17

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REVIEWED DESIGN DIVISION	BY: <i>[Signature]</i>	DATE: 10-25-07
REVIEWED LAND DEVELOPMENT DIVISION	BY: <i>[Signature]</i>	DATE: 10-25-07

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STATE OF CALIFORNIA

[Signature]
PROJECT ENGINEER