IMPROVEMENT PLANS FOR
FIRE ROCK NAVAJO CASINO
EAST PARKING LOT

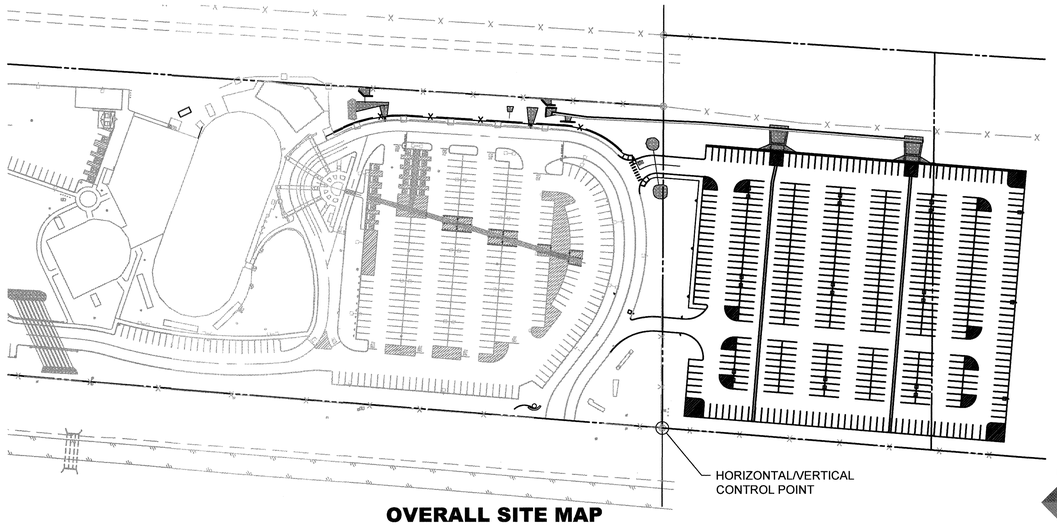
2249 E. HWY 66
CHURCH ROCK, NM 87311

ABBREVIATIONS

ABC	AGGREGATE BASE COURSE	N	NORTH
AC	ASPHALT CONCRETE	NE	NORTHEAST
ACSM	ALUMINUM CAP SURVEY MONUMENT	NMDOT	NEW MEXICO DEPARTMENT OF TRANSPORTATION
ADA	AMERICANS WITH DISABILITIES ACT		
ARCH	ARCHITECTURAL	NTS	NOT TO SCALE
AVE	AVENUE	NW	NORTHWEST
BLDG	BUILDING	OC	ON CENTER
BM	BENCHMARK	OFF	OFFSET
BW	BOTTOM OF WALL (ELEV AT FINISHED GRADE)	OH	OVERHEAD
		OHE	OVERHEAD ELECTRIC
C	COMPUTED, CALCULATED,CONCRETE	PCC	PORTLAND CEMENT CONCRETE
CB	CATCH BASIN	PL	PROPERTY LINE
CF	CUBIC FEET	PP	POWER POLE
CL	CENTER LINE	PSI	POUNDS PER SQUARE INCH
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYLCHLORIDE
CMU	CONCRETE MASONRY UNIT	R	RADIUS, RANGE, RECORD, ROUTE, RIGHT
CO	CLEAN OUT	R1	REFERENCES
COMM	COMMUNICATION	REQ	REQUIRED
CONST	CONSTRUCTION	ROW	RIGHT OF WAY
COR	CORNER	RT	RIGHT
CR	CROWN	RTE	ROUTE
DIA	DIAMETER	RW	RECLAIMED WATER
DIP	DUCTILE IRON PIPE	S	SOUTH, SECTION, SLOPE
DTL	DETAIL	SCHD	SCHEDULE
E	EAST	SD	STORM DRAIN
EL/ELV	ELEVATION	SDMH	STORM DRAIN MANHOLE
ELEV	ELEVATION	SE	SOUTHEAST
ESMT	EASEMENT	SEC	SECTION
EX/EXIST	EXISTING	SHT	SHEET
FF	FINISH FLOOR	SF	SQUARE FEET
FFE	FINISH FLOOR ELEVATION	SS	SANITARY SEWER
FG	FINISHED GRADE	SSMH	SANITARY SEWER MANHOLE
FL	FLOW LINE	STA	STATION
FO	FIBER OPTIC	STD	STANDARD
G	GUTTER, GAS	SW	SOUTHWEST, SIDEWALK
GV	GRAVEL, GATE VALVE	T	TOWNSHIP
GW	GUY WIRE	TYP	TYPICAL
HOR	HORIZONTAL	UE/UGE	UNDERGROUND ELECTRIC
HWY	HIGHWAY	UG	UNDERGROUND
INV	INVERT	UPRR	UNION PACIFIC RAILROAD
KV	KILO VOLTS	US	UNITED STATES
L	LENGTH, LEFT	VERT	VERTICAL
LF	LINEAL FOOT	W	WEST, WATER
LP	LIGHT POLE	WA	WATER
LS	LAND SURVEYOR	WM	WATER METER
LT	LEFT	WT	WATER
M	MEASURED	YR	YEAR
MAX	MAXIMUM		
ME	MATCH EXISTING		
MIN	MINIMUM		

LEGEND

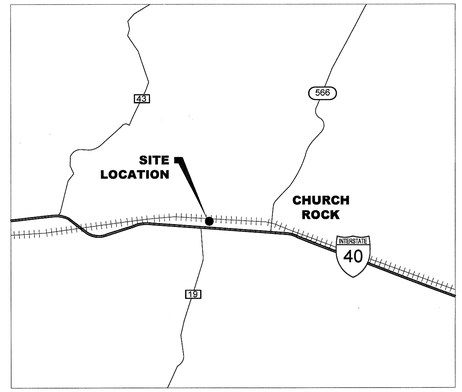
FEATURE	PROPOSED	EXISTING
SURVEY BENCH MARK	⊕	⊕
SET SURVEY REBAR WITH CAPP	◎	◎
FOUND SURVEY MONUMENT		●
FOUND SURVEY CONTROL MONUMENT		△
MINOR CONTOUR LINE	41	41
MAJOR CONTOUR LINE	40	40
PROPERTY LINE		
CURB STOP W/ FLUSHING PIPE		
AIR RELEASE VALVE		
CENTERLINE		
FIRE HYDRANT		
POWER POLE		
END CAP		
CONCRETE SIDEWALK OR PAD		
BUILDING EXTERIOR WALL		
BLOCK WALL/RETAINING WALL		
STORM DRAIN LINE		
SD CATCH BASIN		
MANHOLE, STORM DRAIN	SD	SD
GAS LINE	G	G
GAS METER	■ G	□ G
VALVE	⊗	
SANITARY SEWER MANHOLE	●	●
OVERHEAD ELECTRIC LINE	OE	OE
TRAFFIC SIGN, SINGLE POST		
SANITARY SEWER CLEAN OUT	○ C.O.	○ C.O.
VEGETATION		
WOOD FENCE		
BARBED WIRE FENCE		x x
CHAINLINK FENCE		
SANITARY SEWER LINE (10" DIA)	10"SS	
WATER LINE (10" DIA)	10"W	
DRAINAGE SWALE		
FIBER OPTIC CABLE MARKER		F
UTILITY MARKER		U
LIGHT POLE		



OVERALL SITE MAP

1"=100'

N.T.S.



VICINITY MAP

PORTION OF SECTION 15, T15N, R17W, NMPM,
MCKINLEY COUNTY, NEW MEXICO

PROJECT CONTACTS

OWNER
NAVAJO NATION GAMING ENTERPRISE
PO BOX 1700
CHURCH ROCK, NEW MEXICO 87311
CONTACT: JAMES WANAMAKER

CIVIL ENGINEER
DOWL
430 W. WARNER ROAD
SUITE B101
TEMPE, ARIZONA 85284
(480) 753-0800
CONTACT: WILLIAM GASQUE, P.E.

SHEET INDEX

ESTIMATED EARTHWORK QUANITIES

THE ESTIMATED QUANTITIES SHOWN ARE FOR REFERENCE ONLY AND ONLY INCLUDE IMPROVEMENTS FOR THE EAST PARKING LOT. THE CONTRACTOR SHALL CALCULATE OWN QUANTITIES. CUT NUMBER INCLUDE VOLUMES OF PAVEMENT. NO ADJUSTMENTS FOR SHRINKAGE OR SWELL HAVE BEEN APPLIED TO THE QUANTITIES SHOWN.

TOTAL CUT: 6,336 CY
TOTAL FILL: 6,706 CY

NET: 370 CY FILL

SURVEY NOTE

A PORTION THE SITE WAS SURVEYED BY WH PACIFIC ON JULY 27, 2013. THE SURVEY WAS SUPPLEMENTED WITH ORIGINAL DESIGN CAD FILES OF THE FIRE ROCK CASINO, FIELD OBSERVATIONS, AS WELL AS AERIAL IMAGERY. THE CONTRACTOR SHALL VERIFY ALL ABOVEGROUND AND UNDERGROUND LOCATIONS OF IMPROVEMENTS THAT MAY OR MAY NOT BE SHOWN ON THESE PLANS.

HORIZONTAL AND VERTICAL CONTROL

HORIZONTAL AND VERTICAL CONTROL IS BASED ON THE BUREAU OF LAND MANAGEMENT BRASS CAP LOCATED AT THE INTERSECTION OF THE FENCES SOUTH AND EAST OF THE ENTRANCE TO THE CASINO.

N: 1650319.00
E: 2487942.20
Z: 6612.59

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "AS BUILT" MEASUREMENTS AS SHOWN OR NOTED HEREON AND THE AS-CONSTRUCTED VOLUME CALCULATIONS ON THIS SHEET WERE MADE BY ME OR UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR DATE

REGISTRATION NUMBER

DETENTION POND VOLUMES

BASIN IDENTIFICATION	STAGE	AS-DESIGNED VOLUME (CF) BELOW STAGE	AS-CONSTRUCTED VOLUME (CF) BELOW STAGE
WEST BASIN	6611.00	2,159	
EAST BASIN (NORTH)	6612.00	12,183	
EAST BASIN (SOUTH)	6612.00	4,722	
EAST BASIN TOTAL	6612.00	16,905	

REVISIONS

REV	DATE	DESCRIPTION	BY
1	6/30/15	ADDED ELECTRICAL SHEETS; EXIST LOT MODS	ERO

WILLIAM E. GASQUE
NEW MEXICO
18749
06/30/15
PROFESSIONAL ENGINEER

DOWL
WWW.DOWL.COM
430 W. Warner Road, #B101
Tempe, Arizona 85284
480-753-0800

Brown & Associates
Plan Review Submittal
Client Log No: U/A
Reviews: As Approved
Brown & Associates Log No: 9202-NNGE-1502
Name of Plans: Fire Rock Navajo Casino, East Parking Lot
Revisions, Add Site Electrical
Date: 7-1-15
A...S...P...M...E...D...

FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION
CONSTRUCTION DOCUMENTS
COVER SHEET
2249 E. HWY 66
CHURCH ROCK, NM 87311

PROJECT 3122.41172.01
DATE 06/2015

SHEET
C-100

Know what's below. Call before you dig.

Job Site and Above

ENGINEER'S GENERAL NOTES

1. THE USE OF THE TERM SPECIFICATIONS SHALL MEAN THE NMDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. ALL CONSTRUCTION SHALL CONFORM TO THE NAVAJO NATION CONSTRUCTION STANDARDS, MATERIAL SPECIFICATIONS, AND DETAIL DRAWINGS AND THE SPECIFICATIONS.
3. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, OR BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
4. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK. THIS SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY. THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD PRIOR TO ENTERING PUBLIC STREETS. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLAY DUST, AND TAKE WHATEVER MEASURES NECESSARY TO ENSURE THAT ALL ROADWAYS AND ON-SITE PARKING LOTS/FIRE LANES ARE MAINTAINED IN A CLEAN, MUD AND DUST-FREE CONDITION AT ALL TIMES.
6. IT SHALL BE THE RESPONSIBILITY OF ANY INDIVIDUAL, CONTRACTOR, UTILITY COMPANY OR CITY AGENCY TO CALL THE NEW MEXICO ONE-CALL AT 811 OR (800) 321-ALERT (2537) A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATION ACTIVITIES.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE UNDERGROUND UTILITY LOCATIONS AND/OR ELEVATIONS AS SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE FROM UTILITY RECORDS AND OTHER DATA AS SUPPLIED TO THE ENGINEER. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THERE MAY BE OTHER UNDERGROUND UTILITY LINES, SERVICE LINES, AND STRUCTURES PRESENT IN THE SUBJECT AREA. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST SEVENTY-TWO (72) HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IF EXISTING UTILITIES ARE FOUND TO CONFLICT WITH THE PROPOSED IMPROVEMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE, REGARDING THE EARTHWORK QUANTITIES, THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO THE VARYING FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES, AND CONSTRUCTION METHODS. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, EARTHWORK QUANTITIES, AND REQUIREMENTS OF THE WORK AND EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.
9. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIANCE FROM THESE PLANS. ANY PROPOSED VARIATIONS SHALL BE SHOWN ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER FOR REVIEW.
10. ANY INSPECTION BY THE NAVAJO NATION, CITY, COUNTY, STATE, OR ENGINEER SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS AND BONDS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A COPY OF ALL REQUIRED CONSTRUCTION PERMITS TO THE ENGINEER IF REQUESTED.
12. SHOULD THE CONTRACTOR ENCOUNTER AN EXISTING STRUCTURE (ABOVE OR BELOW GROUND) IN THE WORK FOR WHICH DISPOSITION IS NOT INDICATED ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO DISTURBING SUCH STRUCTURE. THE DISPOSITION OF EXISTING STRUCTURES SO ENCOUNTERED SHALL BE DETERMINED BY THE ENGINEER.
13. SALVAGE NOTE: MATERIAL SALVAGED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS.
14. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL CONSTRUCTION DEBRIS FROM THE SITE AND DISPOSING OF THE DEBRIS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL RULES, REGULATIONS, AND LAWS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND PROPER DISPOSAL.
15. THE CONTRACTOR SHALL NOT TAKE ADVANTAGE OF ANY APPARENT ERROR OR OMISSION ON THE PLANS OR SPECIFICATIONS. IN THE EVENT THE CONTRACTOR DISCOVERS ANY APPARENT ERROR OR DISCREPANCY, HE SHALL IMMEDIATELY CALL UPON THE ENGINEER FOR HIS INTERPRETATION AND DECISION, AND SUCH DECISION SHALL BE FINAL.
16. EXISTING SITE IMPROVEMENTS WHICH ARE DAMAGED OR DISPLACED BY THE CONTRACTOR'S OPERATIONS SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL NOTIFY THE OWNER, WHO SHALL APPROVE REPAIRS PRIOR TO CONSTRUCTION. THE OWNER MAY WITHHOLD FINAL PAYMENT UNTIL REPAIRS ARE INSPECTED AND APPROVED.
17. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS AND BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION, ELEVATION, AND/OR SIZE OF EXISTING PIPE INVERTS, FINISHED FLOOR ELEVATIONS, AND CURB OR PAVEMENT AT LOCATIONS WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL CONTROL BY REFERENCING SHOWN DIMENSIONS OR COORDINATES TO KNOWN PROPERTY LINES AND NOTIFY THE ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.
18. PROPERTY CORNERS AND BENCHMARKS SHALL BE CAREFULLY PROTECTED UNTIL THEY HAVE BEEN REFERENCED BY A REGISTERED LAND SURVEYOR. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.
19. ALL CONDUITS (BOX CULVERTS, REINFORCED CONCRETE PIPE, CORRUGATED METAL PIPE, AND/OR HDPE PIPE) SHOWN ON THESE PLANS ARE DESIGNED FOR STANDARD HIGHWAY LOADINGS. THE STANDARD SATISFACTORY MINIMUM COVER REQUIREMENTS AS ESTABLISHED BY THE CONDUIT MANUFACTURER MAY NOT ALWAYS BE ADEQUATE DURING CONSTRUCTION. WHEN CONSTRUCTION EQUIPMENT, FREQUENTLY HEAVIER THAN TRAFFIC LOADS FOR WHICH THE CONDUIT HAS BEEN DESIGNED, IS TO BE DRIVEN OVER OR CLOSE TO THE BURIED CONDUIT, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE CONDUIT. THE ADEQUACY OF THE COVER REQUIREMENTS FOR THE CONDUITS SHALL BE ANALYZED AND CHECKED BY THE CONTRACTOR TO ADDRESS LOADING CONDITIONS IMPOSED BY CONSTRUCTION ACTIVITY. ANY CONDUIT DAMAGED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
20. THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A LAND SURVEYOR TO CREATE AN AS-BUILT RECORD DRAWING AND CALCULATE THE AS-BUILT DETENTION STORAGE VOLUMES. THE SURVEYOR SHALL SIGN THE AS-BUILT CERTIFICATION ON THE COVER SHEET.

ENGINEER'S PAVING NOTES

1. DIMENSIONS THAT LOCATE THE BUILDING ARE MEASURED TO THE FACE OF BUILDING.
2. SIGN CONSTRUCTION AND PAVEMENT MARKING SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. ALL DIMENSIONS REFERENCE THE CENTERLINE, GRADE BREAK, OR FACE OF CURB, UNLESS OTHERWISE NOTED.
4. ALL STATIONING IS TO THE CENTERLINE OF ROADWAY, DRIVE AISLE, OR PIPE UNLESS OTHERWISE NOTED.
5. ALL PAVEMENTS ARE STANDARD DUTY ASPHALT PAVEMENT, UNLESS OTHERWISE NOTED.
6. WHEN ABUTTING NEW PAVEMENT TO EXISTING, SAW CUT THE EXISTING PAVEMENT TO A NEAT STRAIGHT LINE (TWO FEET MINIMUM) AS SHOWN ON THE PLANS. REMOVE ALL BROKEN AND CRACKED PAVEMENT AND MATCH NEW PAVEMENT TO EXISTING WITH A TACK COAT AT ALL JOINTS.
7. ALL UNDERGROUND UTILITY AND SERVICE LINES SHALL BE INSTALLED AND APPROVED PRIOR TO PAVING.
8. ALL AREAS CALLED OUT TO BE PAVED SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF PERMANENT PAVEMENT MARKINGS ON FINAL SURFACE COURSE USING A STRING LINE, FOLLOWING CONTROL POINTS THAT HAVE BEEN SET NO MORE THAN 10 FEET ALONG LINES TO BE STRIPED.
10. CROSSWALKS, STOP BARS, ARROWS, AND LEGENDS SHALL BE WHITE THERMOPLASTIC. ALL OTHER STRIPING SHALL BE PAINTED WHITE OR YELLOW, AS SPECIFIED ON THE PLANS. ALL PAINTED STRIPING SHALL BE GIVEN TWO COATS.
11. THE DIMENSIONS SHOWN TO PAVEMENT STRIPES SHALL BE TO THE CENTER OF STRIPE OR, IN THE CASE OF DOUBLE STRIPE, TO THE CENTER OF THE DOUBLE STRIPE.
12. CONCRETE CURB AND GUTTER MAY BE SUBSTITUTED FOR CONCRETE VERTICAL CURB ANYWHERE THAT CONCRETE VERTICAL CURB IS NOTED ON THE PLANS. IF THE CONTRACTOR ELECTS TO USE THIS SUBSTITUTION, THEN THE CONCRETE CURB AND GUTTER, IN THESE LOCATIONS, SHALL BE "SPILL-OUT" AND HAVE A GUTTER SLOPE THAT DRAINS TOWARDS THE PAVEMENT.

ENGINEER'S GRADING AND DRAINAGE NOTES

1. THE MAXIMUM SLOPE RATIO ON CUT/FILL SLOPES SHALL BE FOUR (4) HORIZONTAL TO ONE (1) VERTICAL UNLESS OTHERWISE SPECIFIED.
2. AT LOCATIONS CALLED OUT TO MATCH EXISTING, THE CONTRACTOR SHALL MATCH FINISHED GRADES OF PROPOSED PAVEMENT AND PROPOSED CURB AND GUTTER WITH THE EXISTING PAVEMENT AND EXISTING CURB AND GUTTER. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM ALL CURBING AND EXISTING PAVEMENT.
3. DISTURBED AREAS OUTSIDE OF THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS SHALL BE RESTORED TO THEIR ORIGINAL GRADE AND CONDITION AT THE CONTRACTOR'S EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.
4. ALL SURFACES ALONG ACCESSIBLE ROUTES AND ADA RAMPS SHALL BE STABLE, FIRM, SLIDE-RESISTANT, AND SHALL COMPLY WITH THE LATEST ADAAG REQUIREMENTS. ANY GRADE OR ELEVATION CHANGES TO THE ACCESSIBLE ROUTE MADE IN THE FIELD SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASH-OUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A STAND OF GRASS OR OTHER FINAL LANDSCAPE PLANTING IS WELL ESTABLISHED.
6. ALL ON-SITE STORM DRAINS ARE PRIVATE UNLESS LOCATED IN EASEMENTS OR OTHERWISE NOTED.
7. THE CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS. IN AREAS WHERE SIDEWALKS OR PAVING DO NOT IMMEDIATELY ADJOIN THE STRUCTURE, PROTECTIVE SLOPES MUST BE PROVIDED WITH A MINIMUM GRADE OF APPROXIMATELY FIVE PERCENT (5%) FOR AT LEAST 10 FEET FROM PERIMETER WALLS. BACKFILL AGAINST FOOTINGS, EXTERIOR WALLS, AND IN UTILITY TRENCHES SHOULD BE WELL COMPACTED AND FREE OF ALL CONSTRUCTION DEBRIS TO REDUCE THE POSSIBILITY OF MOISTURE INFILTRATION.
8. INFILTRATION OF WATER INTO UTILITY OR FOUNDATION EXCAVATIONS MUST BE PREVENTED DURING CONSTRUCTION. PLANTERS AND OTHER SURFACE FEATURES THAT COULD RETAIN WATER IN AREAS ADJACENT TO THE BUILDING OR PAVEMENTS SHOULD BE SEALED OR ELIMINATED.
9. THE CONTRACTOR SHALL CLEAN ALL DRAINAGE STRUCTURES AND PIPES AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
10. ALL GRADING SHALL COMPLY WITH THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT FOR THIS PROJECT IN ADDITION TO THE REFERENCED REQUIRED SPECIFICATIONS AND DETAILS. THE GEOTECHNICAL REPORT WAS PREPARED BY AMEC ENVIRONMENT & INFRASTRUCTURE, INC. DATED JULY 19, 2013 WITH AMEC PROJECT #13-517-00040.
11. ALL STORM DRAIN PIPE SHALL HAVE A SMOOTH INTERIOR REGARDLESS OF THE PIPE MATERIAL. STORM DRAIN CONNECTIONS MAY REQUIRE REDUCERS AS NECESSARY. SWEEPING ELBOWS SHALL BE USED AT ALL BENDS.
12. SPOT ELEVATIONS SHOWN ON THE GRADING PLANS HAVE BEEN TRUNCATED TO ENHANCE THE LEGIBILITY OF THE PLANS. ADD 6,600 TO ALL SPOT ELEVATIONS BETWEEN 0.00 AND 25.00.

ENGINEER'S DEMOLITION NOTES

1. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL ITEMS INCLUDING, BUT NOT LIMITED TO, EXISTING UTILITIES, PAVEMENTS, SHRUBS/TREES, WALKS, SIGNS OR ANY OTHER ITEMS WHICH MAY INTERFERE WITH THE PLACEMENT OF THE PROPOSED IMPROVEMENTS.
3. EXISTING ITEMS BEYOND THE CONSTRUCTION LIMITS AND/OR THOSE ITEMS SPECIFICALLY INDICATED ON THE PLANS TO BE PROTECTED IN PLACE, INCLUDING, BUT NOT LIMITED TO, SIGNS, UTILITIES, BUILDINGS, TREES AND LIGHT POLES, SHALL BE PROTECTED FROM DAMAGE DURING THE DEMOLITION PROCESS. ANY DAMAGE SUSTAINED TO THESE ITEMS PLACE SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE, AT NO ADDITIONAL COST TO OWNER.
4. ALL PAVEMENTS, STRUCTURES, UTILITIES, VEGETATION, AND DELETERIOUS MATERIALS SCHEDULED FOR REMOVAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LEGALLY DISPOSED OF AT NO ADDITIONAL COST TO THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS REQUIRED TO HAUL AND/OR DISPOSE OF WASTE PRODUCTS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH DOCUMENTATION REGARDING THE PROPER DISPOSAL OF ALL DEMOLITION ITEMS.
5. PRIOR TO COMMENCING DEMOLITION ACTIVITIES, ALL EROSION CONTROL DEVICES MUST BE INSTALLED IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN.
6. THE CONTRACTOR SHALL LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE NECESSARY AND AS SHOWN ON THE CONSTRUCTION PLANS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT AND/OR OTHER ITEMS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPAIR OF THE DAMAGED ITEMS AT NO ADDITIONAL COST TO THE OWNER.
7. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. TO BE CLEAR AND FREE OF ANY CONSTRUCTION ACTIVITY AND/OR EXCAVATED AND HAULED MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO, FROM, AND AROUND THE SITE.
8. ALL AREAS TO BE PAVED, WHICH CURRENTLY CONTAIN VEGETATION, SHALL BE CLEARED AND GRUBBED. CLEARING AND GRUBBING SHALL INCLUDE, BUT NOT BE LIMITED TO THE REMOVAL OF ALL BRUSH, NON-GRASSY VEGETATION, THE GRUBBING OUT OF ALL ROOT SYSTEMS TO A DEPTH OF SIX INCHES AND REPLACING WITH SELECT COMPACTED FILL MATERIAL. REFER TO SITE PLAN FOR PAVING LIMITS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CAREFULLY REMOVING, STORING AND SAFEGUARDING ALL ITEMS WHICH ARE INTENDED TO BE SALVAGED AND REUSED. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED OR REPLACED AS NECESSARY BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.

REVISIONS

REV	DATE	DESCRIPTION	BY

WILLIAM E. GASQUE
NEW MEXICO
18749
4/20/15
PROFESSIONAL ENGINEER

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430 W. Warner Road, #B101
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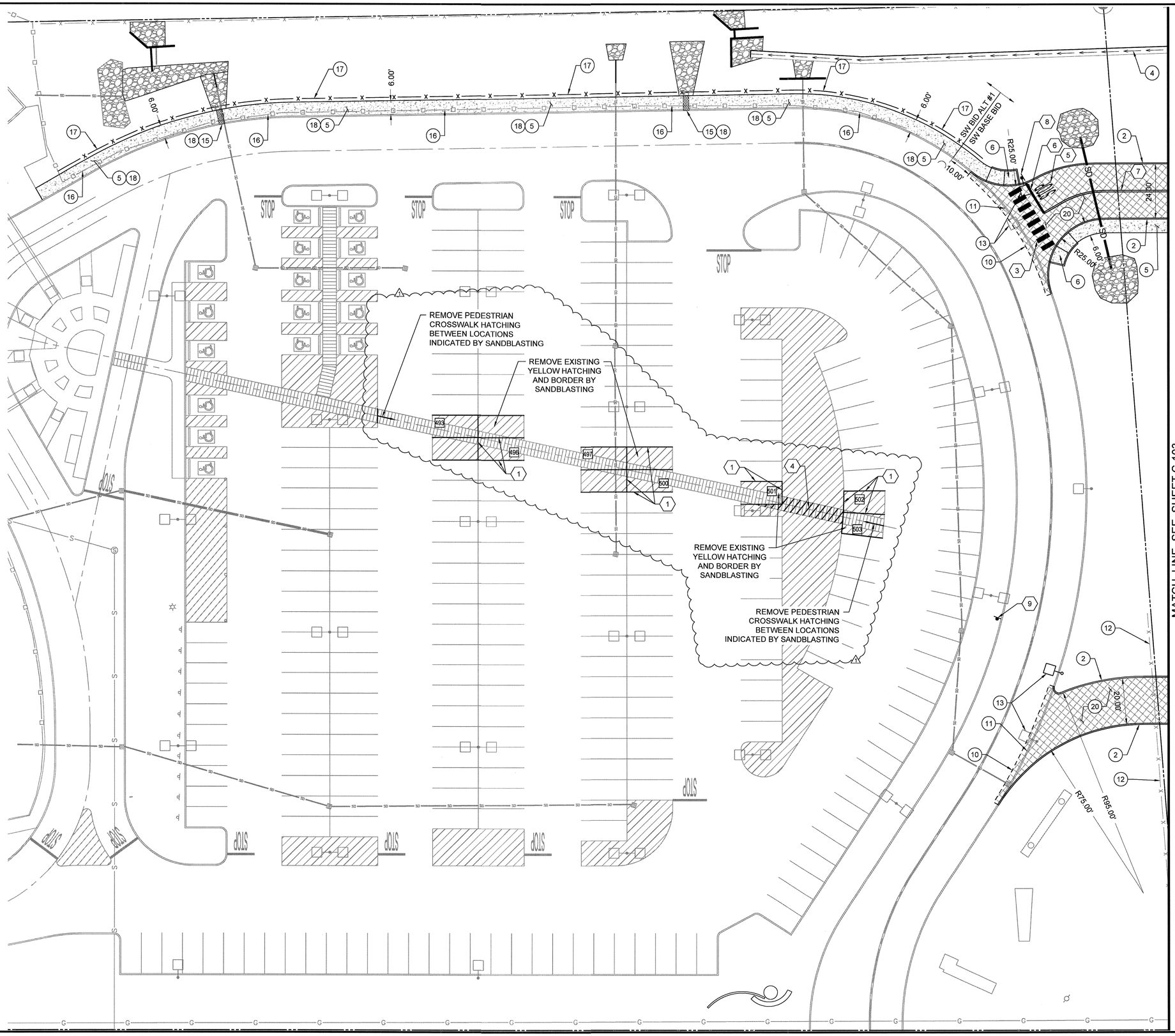
FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION
CONSTRUCTION DOCUMENTS NOTES SHEET
2249 E. HWY 66
CHURCH ROCK, NM 87311

APPROVED
BY:
DATE: 5/6/15

PROJECT 3122.41172.01
DATE 04/2015

SHEET
C-101

811 Know what's below. Call before you dig.



20 0 20 40
SCALE IN FEET
1"=20'

PAVING KEYNOTES

1. CONSTRUCT STANDARD DUTY ASPHALT PAVEMENT SECTION PER DTL 11 ON SHEET C107.
2. CONSTRUCT 6" CONCRETE VERTICAL CURB PER DTL. 3 ON SHEET C106.
3. CONSTRUCT 6" CONCRETE VERTICAL CURB AND GUTTER, TYPE 'B' PER NMDOT STD. DTL. 609.
4. CONSTRUCT 3' WIDE VALLEY GUTTER PER DTL. 8 ON SHEET C107.
5. CONSTRUCT 4" THICK CONCRETE SIDEWALK PER NMDOT STD. DTL. 609.
6. CONSTRUCT ACCESSIBLE RAMP PER DTL. 2 ON SHEET C106.
7. INSTALL PIPE BOLLARD PER DTL 7 ON SHEET C107.
8. CONSTRUCT CURB OPENING PER DTL 1 ON SHEET C106. WIDTH PER PLAN.
9. FLARE VALLEY GUTTER FROM 3' WIDE TO 18' OVER A DISTANCE OF 20'
10. SAWCUT EXISTING PAVEMENT SECTION AND/OR CURB, FULL DEPTH, TO A NEAT, CLEAN, VERTICAL EDGE.
11. REMOVE CURB AND ASPHALT AS NECESSARY FOR INSTALLATION OF PROPOSED DRIVE. DISPOSE OF CURB PER LOCAL REGULATIONS.
12. REMOVE AND DISPOSE OF EXISTING FENCE PER LOCAL REGULATIONS. REMOVE TO RIGHT-OF-WAY.
13. RELOCATE LIGHT POLE ON NEW BASE. SEE ELECTRICAL SHEET ES101
14. FIRE TRUCK TURNING MOVEMENT FOR REFERENCE.
15. CONSTRUCT SIDEWALK SCUPPER PER DTL. 12 ON SHEET C107.
16. REMOVE EXISTING FENCE. SALVAGE FENCE IF OWNER DEEMS IT FIT ENOUGH FOR RE-USE.
17. NEW (OR SALVAGED) FENCE PER OWNER'S DIRECTION.
18. BID ALTERNATE #1 ITEM.
19. LIGHT POLE LOCATION. SEE ELECTRICAL SHEET SE101.
20. CONSTRUCT HEAVY DUTY ASPHALT PAVEMENT SECTION PER DTL 11 ON SHEET C107.

SIGNING AND MARKING KEYNOTES

1. INSTALL 4" WIDE PAINTED SOLID WHITE PARKING SPACE STRIPE.
2. INSTALL 4" WIDE PAINTED SOLID YELLOW STRIPE (TYPICAL AROUND HATCHED AREAS).
3. INSTALL THERMOPLASTIC CROSSWALK MARKING AT PEDESTRIAN PATH PER DTL 9 ON SHEET C107.
4. INSTALL 4" WIDE PAINTED SOLID YELLOW PAVEMENT HATCH AT 45° AND 36" O.C.
5. INSTALL THERMOPLASTIC "STOP" PAVEMENT LEGEND PER NMDOT SPECIFICATIONS SECTION 704.
6. INSTALL 24" WIDE THERMOPLASTIC SOLID WHITE STOP BAR STRIPE PER NMDOT SPECIFICATIONS SECTION 704.
7. INSTALL 4" PAINTED SOLID DOUBLE YELLOW LINE WITH 4" SPACE BETWEEN LINES PER NMDOT SPECIFICATIONS SECTION 704.
8. INSTALL 30"X30" MUTCD R1-1 STOP SIGN WITH 24"X12" MUTCD W4-4P "CROSS TRAFFIC DOES NOT STOP" PLAQUE ON SIGN POST PER NMDOT STD. DTL. 701-02. OR MOUNT ON RELOCATED LIGHT POLE.

9. INSTALL 24"X24" MUTCD R3-2 NO LEFT TURN SIGN ON SIGN POST PER NMDOT STD. DTL. 701-02.

10. INSTALL 30"X30" MUTCD R5-1 DO NOT ENTER SIGN ON SIGN POST PER NMDOT STD. DTL. 701-02.

11. INSTALL CUSTOM 24"X18" "PEDESTRIAN ROUTE TO CASINO" SIGN ON SIGN POST PER NMDOT STD. DTL. 701-02. SUBMIT SIGN SHOP DRAWING SHOWING BLACK LETTERS ON WHITE BACKGROUND

811 Know what's below. Call before you dig.

REV	DATE	DESCRIPTION	BY
1	6/30/15	ADDED ELECTRICAL SHEETS; EXIST LOT MODS	ERO

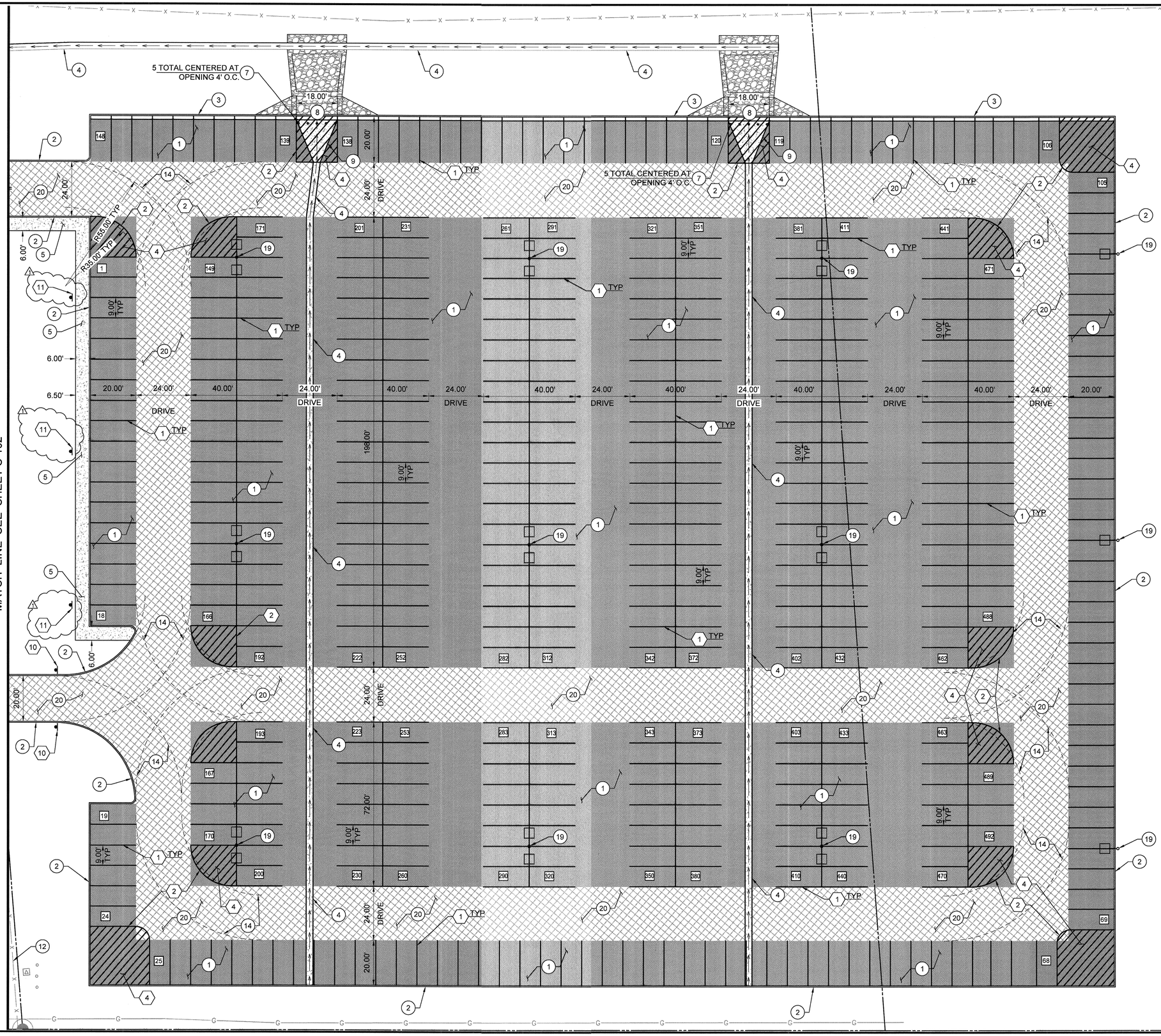
WILLIAM E. GASQUE
NEW MEXICO
18749
06/30/15
PROFESSIONAL ENGINEER

DOWL
WWW.DOWL.COM
430 W. Warner Road, #B101
Tempe, Arizona 85284
480-753-0800

FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION
CONSTRUCTION DOCUMENTS
PAVING, MARKING AND SIGNING PLAN
2249 E. HWY 66
CHURCH ROCK, NM 87311

PROJECT 3122.41172.01
DATE 06/2015

SHEET
C-102



20 0 20 40
SCALE IN FEET
1"=20'

N

PAVING KEYNOTES

1. CONSTRUCT STANDARD DUTY ASPHALT PAVEMENT SECTION PER DTL 11 ON SHEET C107.
2. CONSTRUCT 6" CONCRETE VERTICAL CURB PER DTL. 3 ON SHEET C106.
3. CONSTRUCT 6" CONCRETE VERTICAL CURB AND GUTTER, TYPE 'B' PER NMDOT STD. DTL. 609.
4. CONSTRUCT 3' WIDE VALLEY GUTTER PER DTL. 8 ON SHEET C107.
5. CONSTRUCT 4" THICK CONCRETE SIDEWALK PER NMDOT STD. DTL. 609.
6. CONSTRUCT ACCESSIBLE RAMP PER DTL. 2 ON SHEET C106.
7. INSTALL PIPE BOLLARD PER DTL 7 ON SHEET C107.
8. CONSTRUCT CURB OPENING PER DTL 1 ON SHEET C106. WIDTH PER PLAN.
9. FLARE VALLEY GUTTER FROM 3' WIDE TO 18' OVER A DISTANCE OF 20'
10. SAWCUT EXISTING PAVEMENT SECTION AND/OR CURB, FULL DEPTH, TO A NEAT, CLEAN, VERTICAL EDGE.
11. REMOVE CURB AND ASPHALT AS NECESSARY FOR INSTALLATION OF PROPOSED DRIVE. DISPOSE OF CURB PER LOCAL REGULATIONS.
12. REMOVE AND DISPOSE OF EXISTING FENCE PER LOCAL REGULATIONS. REMOVE TO RIGHT-OF-WAY.
13. RELOCATE LIGHT POLE ON NEW BASE. SEE ELECTRICAL SHEET ES101
14. FIRE TRUCK TURNING MOVEMENT FOR REFERENCE.
15. CONSTRUCT SIDEWALK SCUPPER PER DTL. 12 ON SHEET C107.
16. REMOVE EXISTING FENCE. SALVAGE FENCE IF OWNER DEEMS IT FIT ENOUGH FOR RE-USE.
17. NEW (OR SALVAGED) FENCE PER OWNER'S DIRECTION.
18. BID ALTERNATE #1 ITEM.
19. LIGHT POLE LOCATION. SEE ELECTRICAL SHEET SE101.
20. CONSTRUCT HEAVY DUTY ASPHALT PAVEMENT SECTION PER DTL 11 ON SHEET C107.

SIGNING AND MARKING KEYNOTES

1. INSTALL 4" WIDE PAINTED SOLID WHITE PARKING SPACE STRIPE.
2. INSTALL 4" WIDE PAINTED SOLID YELLOW STRIPE (TYPICAL AROUND HATCHED AREAS).
3. INSTALL THERMOPLASTIC CROSSWALK MARKING AT PEDESTRIAN PATH PER DTL 9 ON SHEET C107.
4. INSTALL 4" WIDE PAINTED SOLID YELLOW PAVEMENT HATCH AT 45° AND 36" O.C.
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9. INSTALL 24"X24" MUTCD R3-2 NO LEFT TURN SIGN ON SIGN POST PER NMDOT STD. DTL. 701-02.

10. INSTALL 30"X30" MUTCD R5-1 DO NOT ENTER SIGN ON SIGN POST PER NMDOT STD. DTL. 701-02.

11. INSTALL CUSTOM 24"X18" "PEDESTRIAN ROUTE TO CASINO" SIGN ON SIGN POST PER NMDOT STD. DTL. 701-02. SUBMIT SIGN SHOP DRAWING SHOWING BLACK LETTERS ON WHITE BACKGROUND

811 Know what's below. Call before you dig.

REVISIONS			
REV	DATE	DESCRIPTION	BY
1	6/30/15	ADDED ELECTRICAL SHEETS; EXIST LOT MODS	ERO

WILLIAM E. GASQUE NEW MEXICO 18749 06/30/15 PROFESSIONAL ENGINEER

DOWL
WWW.DOWL.COM
430 W. Warner Road, #B101
Tempe, Arizona 85284
480-753-0800

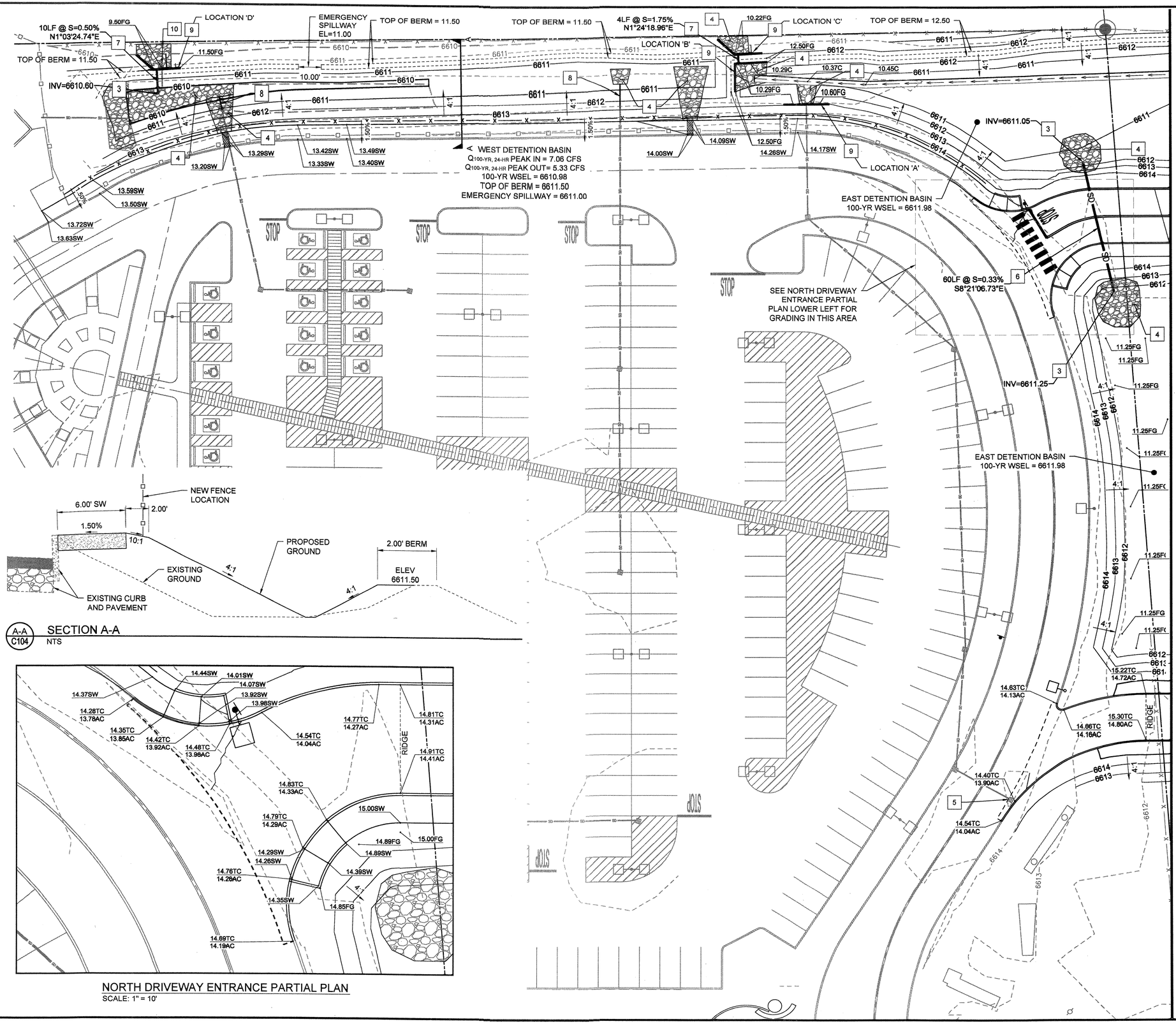
FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION

CONSTRUCTION DOCUMENTS
PAVING, MARKING AND SIGNING PLAN

2249 E. HWY 66
CHURCH ROCK, NM 87311

PROJECT 3122.41172.01
DATE 06/2015

SHEET
C-103



GRADING AND DRAINAGE KEYNOTES

1. RIPRAP FLUME TO BASIN BOTTOM PER DTL. 4 ON SHEET C106. 'W' = 18'.
2. RIPRAP APRON AT FLUME BOTTOM PER DTL. 5 ON SHEET C106. 'W' = 18', L=16.5'.
3. INSTALL PIPE END SECTION. (LENGTH OF END SECTION INCLUDED IN PIPE LENGTH).
4. INSTALL RIPRAP PER DETAIL 6 ON SHEET C106. D50 = 8" AND RIPRAP CLASS B.
5. PROTECT EXISTING STORM DRAIN INLET IN PLACE. FINE GRADE AREA TO DRAIN INTO THE EXISTING BASIN.
6. INSTALL 18" HDPE SMOOTH INTERIOR STORM DRAIN PIPE PER SPECIFICATIONS. LENGTH, SLOPE AND DIRECTION PER PLAN.
7. INSTALL 10" HDPE SMOOTH INTERIOR STORM DRAIN PIPE PER SPECIFICATIONS. LENGTH, SLOPE AND DIRECTION PER PLAN.
8. EXTEND EXISTING PIPE TO TOE OF NEW SLOPE.
9. HEADWALL PER DETAIL 12 ON SHEET C107. LOCATION ID PER PLAN.
10. REMOVE EXISTING PIPE.

REV	DATE	DESCRIPTION	BY
		REVISIONS	

WILLIAM E. GABBIE
NEW MEXICO
18749
4/20/15
PROFESSIONAL ENGINEER

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FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION

CONSTRUCTION DOCUMENTS
GRADING AND DRAINAGE PLAN

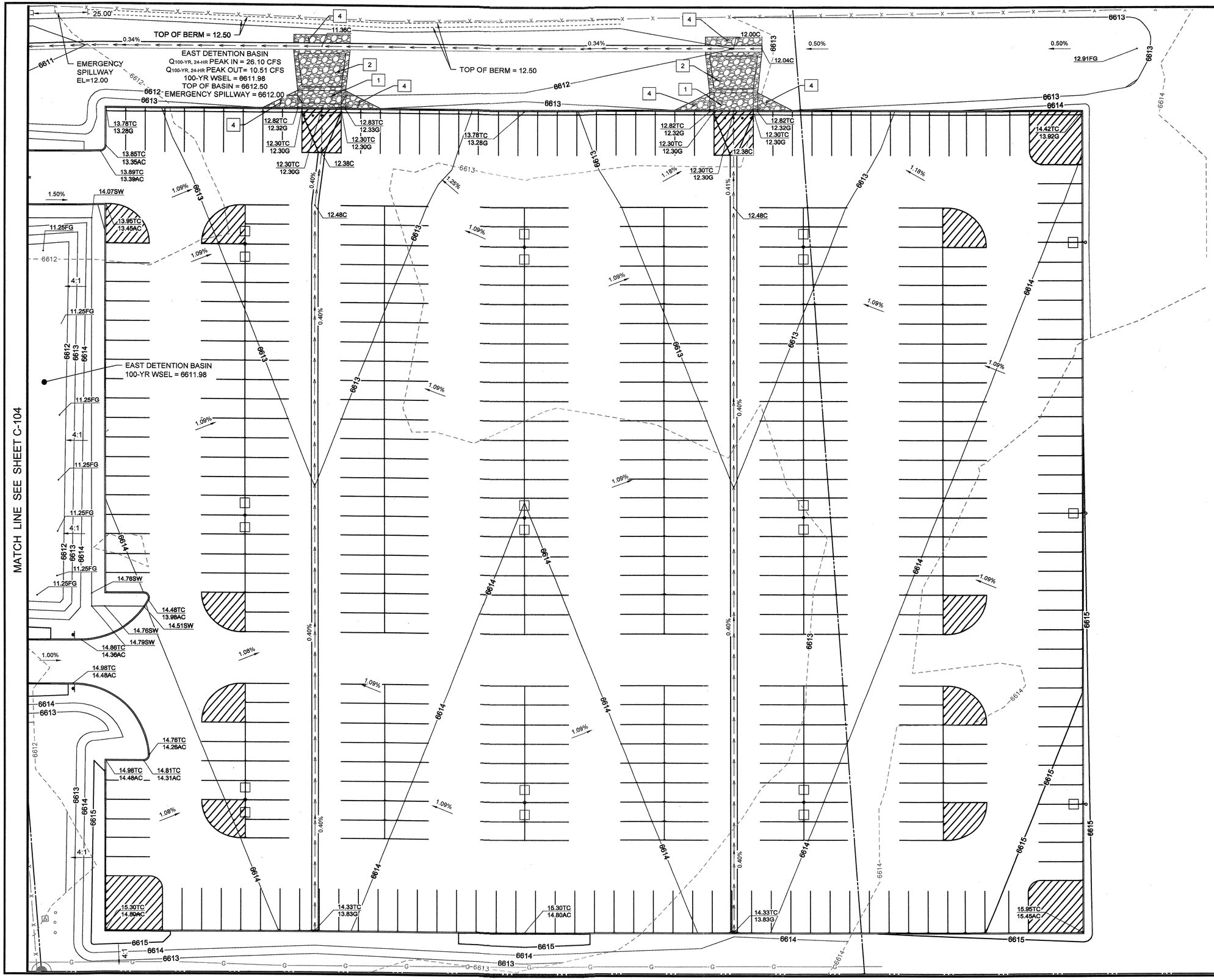
2249 E. HWY 66
CHURCH ROCK, NM 87311

APPROVED BY:
DATE: 4/20/15

PROJECT 3122.41172.01
DATE 04/2015

SHEET
C-104

811 Know what's below. Call before you dig.



GRADING AND DRAINAGE KEYNOTES

1. RIPRAP FLUME TO BASIN BOTTOM PER DTL. 4 ON SHEET C106. 'W' = 18'.
2. RIPRAP APRON AT FLUME BOTTOM PER DTL. 5 ON SHEET C106. 'W' = 18' , L=16.5'.
3. INSTALL PIPE END SECTION. (LENGTH OF END SECTION INCLUDED IN PIPE LENGTH).
4. INSTALL RIPRAP PER DETAIL 6 ON SHEET C106. D50 = 8" AND RIPRAP CLASS B.
5. PROTECT EXISTING STORM DRAIN INLET IN PLACE. FINE GRADE AREA TO DRAIN INTO THE EXISTING BASIN.
6. INSTALL 18" HDPE SMOOTH INTERIOR STORM DRAIN PIPE PER SPECIFICATIONS. LENGTH, SLOPE AND DIRECTION PER PLAN.
7. INSTALL 10" HDPE SMOOTH INTERIOR STORM DRAIN PIPE PER SPECIFICATIONS. LENGTH, SLOPE AND DIRECTION PER PLAN.
8. EXTEND EXISTING PIPE TO TOE OF NEW SLOPE.
9. HEADWALL PER DETAIL 12 ON SHEET C107. LOCATION ID PER PLAN.
10. REMOVE EXISTING PIPE.

REV	DATE	DESCRIPTION	BY
REVISIONS			

WILLIAM E. GASQUE
NEW MEXICO
18749
4/20/15
PROFESSIONAL ENGINEER

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430 W. Warner Road, #B101
Tempe, Arizona 85284
480-753-0800

FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION

CONSTRUCTION DOCUMENTS
GRADING AND DRAINAGE PLAN

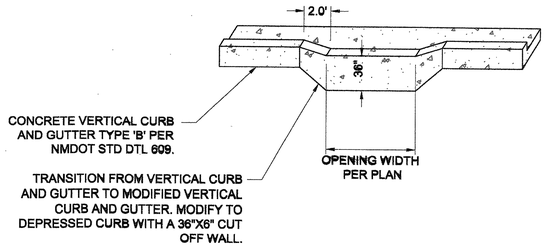
2249 E. HWY. 66
CHURCH ROCK, NM. 87311

APPROVED
BY:
DATE 5/6/15

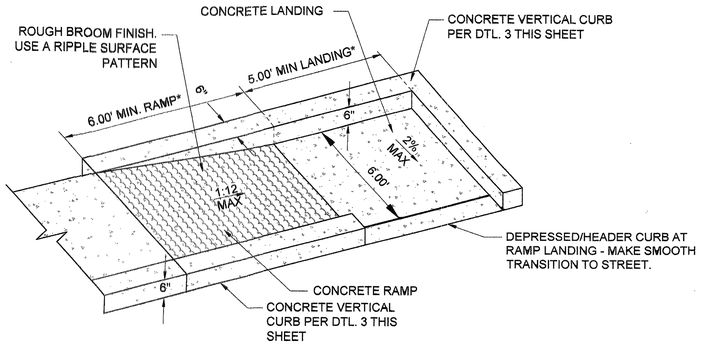
PROJECT 3122.41172.01
DATE 04/2015

SHEET
C-105

811 Know what's below. Call before you dig.

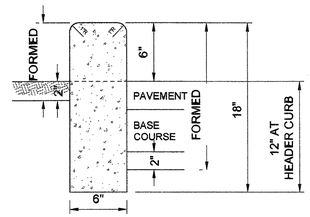


1 CURB OPENING DETAIL
NTS



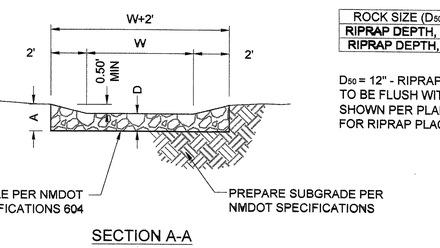
*THE RAMPS ARE LOCATED ADJACENT TO A DRIVE CURB RETURN. THE MINIMUM LENGTHS FOR THE LANDING AND RAMP ARE AT THE BACK OF SIDEWALK. THE LENGTHS ARE GREATER AT THE CURB INTERFACE WITH THE ADJACENT PAVING.

2 CURB ACCESS RAMP
NTS



NOTES
1. ALL CONCRETE SHALL BE CLASS 'A' CONCRETE PER NMDOT SPECIFICATIONS.
2. ALL EXPOSED VERTICAL SURFACES SHALL BE FORMED.
3. VERTICAL SURFACES DOWN FROM 2" BELOW UNDISTURBED SOIL MAY BE PLACED AGAINST NEAT CUT.
4. ALL EXPOSED SURFACES SHALL BE STRIPPED GREEN AND TROWEL FINISHED.
5. CONTRACTION AND CONTROL JOINTS PER NMDOT STD. DTL. 609.

3 VERTICAL AND HEADER CURB DETAIL
NTS

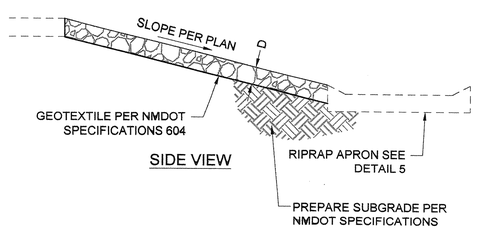


PLAN

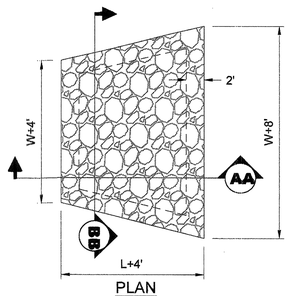
SECTION A-A

ROCK SIZE (D_{50})	12"
RIPRAP DEPTH, D	24"
RIPRAP DEPTH, A	30"

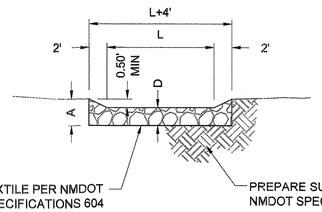
D_{50} = 12" - RIPRAP CLASS C. RIPRAP TO BE FLUSH WITH GRADES AS SHOWN PER PLAN. SEE DETAIL 6 FOR RIPRAP PLACEMENT.



4 RIPRAP FLUME
NTS



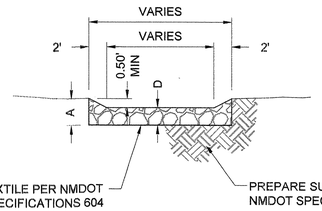
PLAN



SECTION A-A

ROCK SIZE (D_{50})	12"
RIPRAP DEPTH, D	24"
RIPRAP DEPTH, A	30"

D_{50} = 12" - RIPRAP CLASS C. RIPRAP TO BE FLUSH WITH GRADES AS SHOWN PER PLAN. SEE DETAIL 6 FOR RIPRAP PLACEMENT.



SECTION B-B

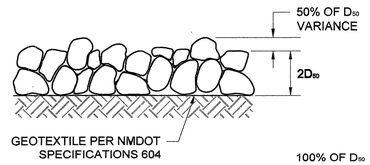
5 RIPRAP APRON AT FLUME BOTTOM
NTS

NOTES:
1. TOP OF RIPRAP TO BE AT FLOWLINE OR GRADE AS INDICATED ON PLAN (WITHIN VARIANCE GIVEN). RIPRAP PLACED ABOVE FINAL GRADE WILL NOT BE ACCEPTED.
2. RIPRAP CONSTRUCTION PER NMDOT SPECIFICATIONS SECTION 602 CLASS B OR C.
3. NON-ANGULAR ROCK WILL NOT BE ACCEPTED.

ROCK RIPRAP GRADATION

SIZE	PERCENT FINER
0.2D_{50}	0
0.5D_{50}	15
0.75D_{50}	30
1.0D_{50}	50
1.5D_{50}	95
2.0D_{50}	100

HAND-PLACED



6 RIPRAP PLACEMENT
NTS

REV	DATE	DESCRIPTION	BY

WILLIAM E. GASQUE NEW MEXICO 18749 4/2015 PROFESSIONAL ENGINEER

DOWL
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430 W. Warner Road, #B101
Tempe, Arizona 85284
480-753-0800

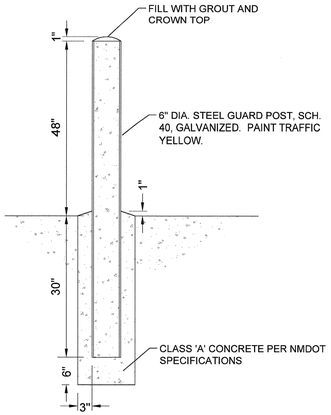
FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION
CONSTRUCTION DOCUMENTS
DETAIL SHEET
2249 E. HWY 66
CHURCH ROCK, NM 87311

APPROVED
BY:
DATE 5/6/15

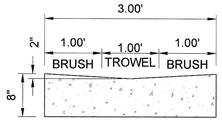
PROJECT 3122.41172.01
DATE 04/2015

SHEET
C-106

811 Know what's below. Call before you dig.

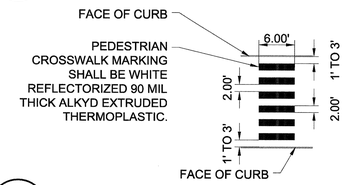


7 PIPE BOLLARD DETAIL
NTS



NOTES
1. CLASS 'A' CONCRETE PER NMDOT SPECIFICATIONS.
2. LENGTH BETWEEN CONTRACTION JOINTS - 10'.
3. LENGTH BETWEEN EXPANSION JOINTS - 50' MAX.

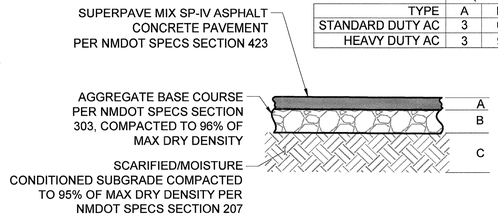
8 VALLEY GUTTER DETAIL
NTS



9 PEDESTRIAN CROSSWALK MARKING
NTS

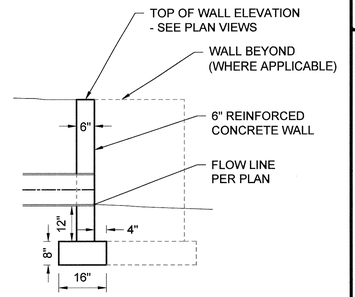
NOTE
THE PAVEMENT SECTION MATCHES THE EXISTING PAVEMENT SECTION FOR THE ORIGINAL CASINO IMPROVEMENTS. A GEOTECHNICAL REPORT WAS NOT MADE AVAILABLE FOR THIS PROJECT.

TYPE	SECTION DEPTH (INCHES) A	B	C
STANDARD DUTY AC	3	6	6
HEAVY DUTY AC	3	9	6



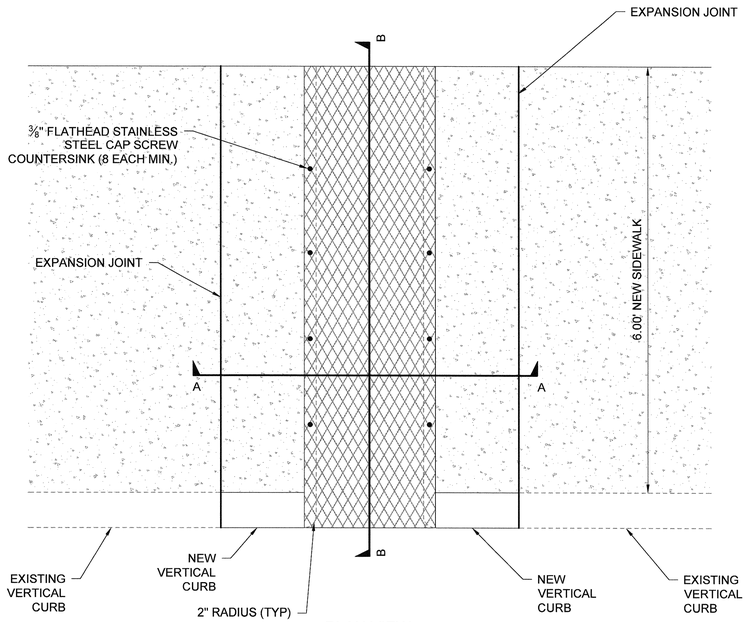
ASPHALT PAVEMENT SECTION

11 ASPHALT PAVEMENT SECTION
NTS



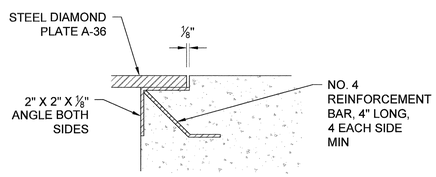
TYPICAL WALL SECTION

10 NOT USED
NTS

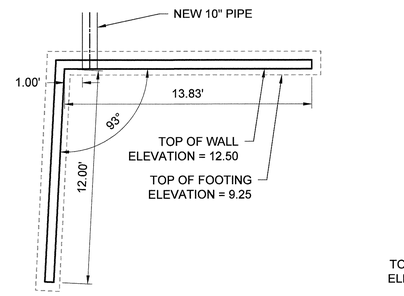


PLAN VIEW

NOTES
1. CLASS 'A' CONCRETE PER NMDOT SPECIFICATIONS.
2. PAINT STEEL PER NMDOT SPECIFICATIONS SECTION 545.

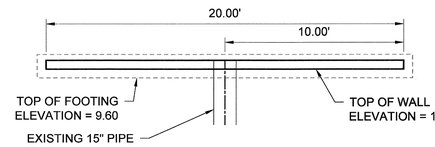


DETAIL C

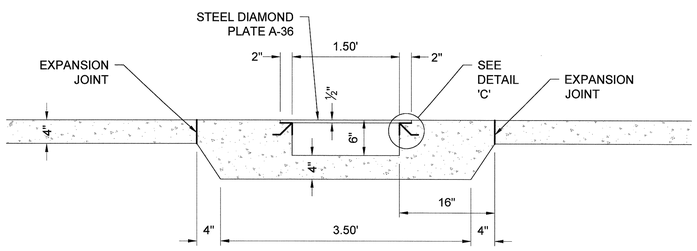


PLAN VIEW - LOCATION 'B'

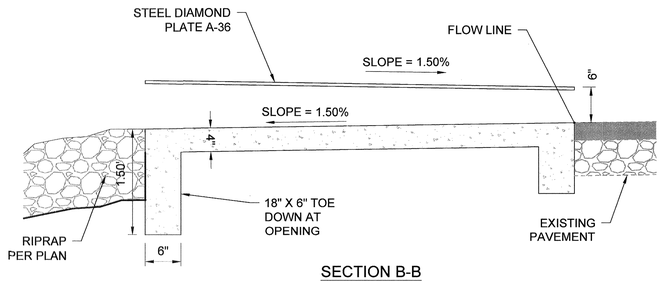
NOTES
1. CLASS 'A' CONCRETE PER NMDOT SPECIFICATIONS.
2. CONCRETE REINFORCEMENT SHALL BE #4 BAR 12" O.C. BOTH WAYS FOR BOTH WALL AND FOOTING.
3. THE FOOTINGS FOR HEADWALLS AT LOCATIONS 'B' AND 'C' MAY BE COMBINED.
4. RIPRAP NOT SHOWN FOR CLARITY.
5. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ENGINEER'S APPROVAL.



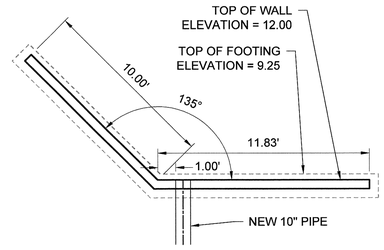
PLAN VIEW - LOCATION 'A'



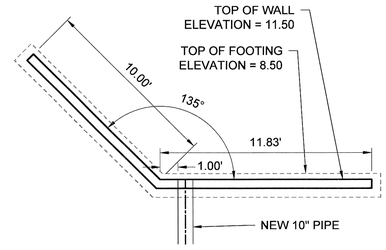
SECTION A-A



SECTION B-B



PLAN VIEW - LOCATION 'C'



PLAN VIEW - LOCATION 'D'

12 SIDEWALK SCUPPER
NTS

13 HEADWALL
NTS

REVISIONS

REV	DATE	DESCRIPTION	BY
1	6/30/15	ADDED ELECTRICAL SHEETS; EXIST LOT MODS	ERO

WILLIAM E. GASQUE NEW MEXICO 18749 06/30/15 PROFESSIONAL ENGINEER

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DATE 06/2015

SHEET
C-107

811 Know what's below. Call before you dig.

STORMWATER MANAGEMENT PLAN

PROJECT/SITE INFORMATION FOR COMPLETION OF NOI

PROJECT NAME: FIRE ROCK NAVAJO CASINO EAST PARKING LOT ADDITION.

PROJECT DESCRIPTION: CONSTRUCTION OF A NEW PARKING LOT ADDITION TO THE EXISTING FIRE ROCK CASINO.

PROJECT ADDRESS/LOCATION:
12249 E. HWY 66, CHURCH ROCK, NEW MEXICO 87311
LATITUDE: N 35°31'57.7" LONGITUDE: W 108°37'34.7"

ESTIMATE OF AREA TO BE DISTURBED: 6.7 ACRES

DESCRIPTION OF CONSTRUCTION ACTIVITY:
GRADING AND DRAINAGE IMPROVEMENTS, ASPHALT PAVING, CONCRETE CURB, AND SIDEWALKS.

SITE DATA:
A) SITE AREA TOTAL = 9.3 ACRES
B) SITE AREA GRADED = 6.7 ACRES

QUALITY OF DISCHARGE: THIS PROJECT DETAINS ALL WATER FROM THE 100-YEAR DESIGN STORM EVENT.

MATERIALS INVENTORY

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE ON-SITE DURING CONSTRUCTION:

ANTIFREEZE/COOLANT
CLEANING SOLVENTS
CURING COMPOUNDS
HYDRAULIC OILS/FLUIDS
PESTICIDES/TERMITE TREATMENT
FUEL & PETROLEUM BASED PRODUCTS
SOLID WASTE
METAL STUDS
MASONRY BLOCK
_____
_____

ASPHALT
CONCRETE
FUEL & PETROLEUM BASED PRODUCTS
PAINTS
HERBICIDES
DETERGENTS
TAR
WOOD
ROOFING MATERIAL
_____
_____

CONTRACTOR TO STRIKEOUT AND ADD ITEMS AS NECESSARY. EMERGENCY HAZARDOUS SPILL CONTAINMENT NUMBERS: NAVAJO NATION FIRE AND RESCUE DEPARTMENT.
IF A HAZARDOUS MATERIAL SPILL COULD REACH SURFACE WATER, THE CONTRACTOR MUST ALSO CONTACT (24 HR.) THE "NATIONAL RESPONSE CENTER" AT 1-800-424-8802

OVERVIEW OF MINIMUM POLLUTION PREVENTION PROVISIONS

1. IN ADDITION TO PREVENTING SOIL FROM ERODING AND MIGRATING FROM THE SITE DURING CONSTRUCTION, POLLUTANTS THAT COULD BE DISCHARGED IN THE STORM WATER EXITING THE SITE MUST BE MINIMIZED. THESE INCLUDE OIL, GREASE, PAINTS, GASOLINE, CONCRETE TRUCK WASH DOWN, SOLVENTS, LITTER, DEBRIS, SANITARY WASTES, AND MATERIALS USED IN THE MANUFACTURE OF CONCRETE SUCH AS AGGREGATE, CEMENT, AND SAND.
2. THE FULL REQUIREMENTS FOR POLLUTION PREVENTION ON THE CONSTRUCTION SITE ARE CONTAINED IN THE PROJECT "STORM WATER POLLUTION PREVENTION PLAN" (SWPPP). THE REQUIREMENTS OF THE FULL SWPPP ARE TO BE MET BY ANY OPERATOR WORKING ON THE SITE. A BRIEF LISTING OF THE REQUIREMENTS TO BE MET ARE AS FOLLOWS:

A) EQUIPMENT MAINTENANCE AND REPAIR IS TO OCCUR ONLY IN DESIGNATED AREAS.
B) WASTE RECEPTACLES SHALL BE PROVIDED AT CONVENIENT LOCATIONS. REGULAR COLLECTION OF WASTES SHALL BE PERFORMED.
C) EQUIPMENT WASH DOWN SHALL OCCUR ON THE SITE IN THE DESIGNATED AREAS. PROVIDE APPROPRIATE CONTROL OF WASH WATER TO PREVENT DRY WEATHER DISCHARGES AND AVOID MIXING WITH STORM WATER.
D) PROVIDE PROTECTED STORAGE FOR CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER POTENTIALLY TOXIC MATERIALS.
E) PROVIDE ADEQUATELY MAINTAINED SANITARY FACILITIES.

POLLUTION PREVENTION COMMITTEE MEMBERS

THE CONTRACTOR SHALL DESIGNATE THE FOLLOWING INDIVIDUALS AS TRAINED PERSONNEL TO IMPLEMENT THE SWPPP.

NAME: _____ TITLE: _____ PH: _____ 24HR PH: _____
NAME: _____ TITLE: _____ PH: _____ 24HR PH: _____
NAME: _____ TITLE: _____ PH: _____ 24HR PH: _____
NAME: _____ TITLE: _____ PH: _____ 24HR PH: _____

GENERAL NOTES

1. THE OPERATOR SHALL REPORT TO EPA ANY NON-COMPLIANCE (INCLUDING SPILLS) WHICH MAY ENDANGER HUMAN HEALTH OR THE ENVIRONMENT. THE OPERATOR SHALL ORALLY NOTIFY THE OFFICE LISTED BELOW WITHIN 24 HOURS:
   EPA-REGION 9
   PHONE: 1-866-947-8000
2. THE OPERATOR SHALL POST A SIGN OR OTHER NOTICE NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCORDING TO THE EPA - POSTING REQUIREMENTS. THE APPROVED SWPPP WILL BE LOCATED IN THE SITE CONSTRUCTION OFFICE.

NOTICE OF TERMINATION (NOT)

1. WITHIN NO LESS THAN 30 DAYS AFTER COMPLETING HIS PORTION OF THE EARTHWORK DEPICTED ON THE PROJECT PLANS, AND THE FINAL STABILIZATION OF THE PERMITTEES PORTION OF THE SITE, CONTRACTOR(S) SHALL FILE A "NOTICE OF TERMINATION" WITH THE EPA AT THE FOLLOWING ADDRESS:

   A) EPA STORM WATER NOTICE PROCESSING CENTER
      U.S. EPA
      1201 CONSTITUTION AVE., NW
      WASHINGTON, DC 20004

   NOI CAN ALSO BE FILED ONLINE USING THE EPA eNOI WEBSITE AT THE FOLLOWING LOCATION:
   HTTP://CFPUB.EPA.GOV/NPDES/NPDESNOI.CFM

2. EACH OPERATOR (AS DEFINED BY EPA) SHALL FILE A SEPARATE "NOTICE OF TERMINATION." NOTICES ARE NOT TRANSFERABLE TO ANY OTHER OPERATOR.

NOTICE OF INTENT (NOI)

1. WITHIN NO LESS THAN 48 HOURS PRIOR TO UNDERTAKING ANY PORTION OF THE EARTHWORK DEPICTED ON THE PROJECT PLANS, CONTRACTOR(S) SHALL FILE A "NOTICE OF INTENT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER A NPDES GENERAL PERMIT" WITH THE EPA AT THE FOLLOWING ADDRESS:

   A) EPA STORM WATER NOTICE PROCESSING CENTER
      U.S. EPA
      1201 CONSTITUTION AVE., NW
      WASHINGTON, DC 20004

   NOT CAN ALSO BE FILED ONLINE USING THE EPA eNOI WEBSITE AT THE FOLLOWING LOCATION:
   HTTP://CFPUB.EPA.GOV/NPDES/STORMWATER/CGPENOI.CFM

2. EACH OPERATOR (AS DEFINED BY EPA) SHALL FILE A SEPARATE "NOTICE OF INTENT". NOTICES ARE NOT TRANSFERABLE TO ANY OTHER OPERATOR.

RETENTION OF RECORDS

1. A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (INCLUDING THE ASSOCIATED BOUND NARRATIVE) SHALL BE KEPT AT A CENTRAL LOCATION ON THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.
2. PERMITTEES SHALL RETAIN COPIES OF THE STORM WATER POLLUTION PREVENTION PLAN AND ANY REVISIONS TO THE PLAN, AND ALL REPORTS REQUIRED BY THE PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT FOR A PERIOD OF A LEAST THREE YEARS FROM THE DATE THE SITE IS FINALLY STABILIZED. THIS PERIOD MAY BE EXTENDED BY THE DIRECTOR OF THE EPA AT ANY TIME.

RELEASE OF HAZARDOUS SUBSTANCES OR OIL

1. THE PERMITTEE SHALL PREVENT OR MINIMIZE THE DISCHARGE OF HAZARDOUS SUBSTANCES OR OIL FROM THE SITE. IF A PERMITTEE ALLOWS DISCHARGES CONTAINING AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTABLE QUANITITY ESTABLISHED UNDER 40 CFR 110, 40 CFR 117, OR 40 CFR 302, DURING A 24 HOUR PERIOD, THE NATIONAL RESPONSE CENTER (NRC) MUST BE NOTIFIED (PHONE NO. 800-424-8802).
2. WITHIN 72 HOURS OR KNOWLEDGE OF THE RELEASE, THE PERMITTEE SHALL PREPARE AND SUBMIT A SATISFACTORY WRITTEN PROPOSAL OF REVISIONS TO BE INCORPORATED INTO THE SWPPP TO PREVENT REOCCURRENCES OF SUCH RELEASES. THE CIRCUMSTANCES LEADING TO THE RELEASE, RESPONSES TO BE EMPLOYED FOR SUCH RELEASES, AND MEASURES TO PREVENT THE REOCCURRENCE OF SUCH RELEASES SHALL BE DOCUMENTED. AFTER A SUITABLE PROPOSAL IS ACCEPTED BY THE OWNER AND ENGINEER, (AND WITHIN 14 CALENDAR DAYS OF THE RELEASE) IT SHALL BECOME AN OFFICIAL REVISION TO THE SWPPP AND CONFORMANCE TO ITS PROVISIONS SHALL BE REQUIRED.

ALLOWABLE NON-STORM WATER DISCHARGES

1. THE ONLY DISCHARGES ALLOWED UNDER THE GENERAL PERMIT, OTHER THAN STORM WATER DISCHARGES ARE AS FOLLOWS:

A) FIRE FIGHTING ACTIVITY RUNOFF
B) FIRE HYDRANT FLUSHING
C) VEHICLE WASH WATER IF DETERGENTS ARE NOT USED
D) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS
E) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHING
F) ROUTINE EXTERNAL BUILDING WASH DOWN THAT DO NOT INVOLVE DETERGENTS
G) NON-DETERGENT PAVEMENT WASH WATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED
H) AIR CONDITIONING CONDENSATE
I) UNCONTAMINATED GROUND WATER OR SPRING WATER
J) FOUNDATION OR FOOTER DRAIN WATER (PROVIDING THERE WAS NO CONTAMINATION WITH PROCESS MATERIALS SUCH AS SOLVENTS).

2. ALLOWABLE NON-STORM WATER DISCHARGES MUST BE DIRECTLY RELATED TO AND ORIGINATE FROM THE CONSTRUCTION OF THE SITE AS DEPICTED IN THESE PLANS, OR BE A DEDICATED SUPPORT ACTIVITY TO THE CONSTRUCTION OF THE SITE.

EROSION CONTROLS

TEMPORARY STABILIZATION PRACTICES

1. DUST CONTROL

A) PROVIDE COVERS FOR TRUCKS TRANSPORTING ANY MATERIALS THAT CONTRIBUTE DUST.
B) PROVIDE WET SUPPRESSION OR CHEMICAL STABILIZATION DURING THE GRADING PROCESS.
C) SWEEP PAVED ROADWAYS OF MUD AND DUST AS NECESSARY TO PREVENT MIGRATION OF MATERIALS TO RECEIVING WATERS.

2. CONSTRUCTION ROAD STABILIZATION:

A) IMMEDIATELY AFTER GRADING OR THE COMPLETION OF UTILITY INSTALLATION, APPLY A 6-INCH COURSE OF 2 TO 4-INCH CRUSHED ROCK, GRAVEL BASE, OR CRUSHED SURFACING BASE.
B) PROVIDE DRAINAGE SWALES ON EACH SIDE OF THE ROADWAY FOR A NORMAL CROWN SECTION, OR THE DOWNSTREAM SIDE FOR A SUPER-ELEVATED SECTION.
C) INSTALLED DRAINAGE INLETS SHALL BE PROTECTED TO PREVENT SEDIMENT-LADEN WATER ENTERING THE DRAIN SEWER SYSTEM.
MAINTENANCE:

1. INSPECT STABILIZED AREAS BI-WEEKLY, AND AFTER ANY STORM EVENT.

2. ADD ROCK OR GRAVEL, IF NECESSARY, TO STABILIZE ANY EROSION.
PERMANENT SOIL STABILIZATION MEASURES: ALL DISTURBED SOIL, WHICH WILL NOT BE PAVED, RIP RAPPED, OR OTHERWISE COVERED TO PREVENT EROSION, SHALL BE VEGETATED AND/OR LANDSCAPED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS WITHIN 14 DAYS OF THE TEMPORARY OR PERMANENT CEASE OF CONSTRUCTION. RETENTION BASINS SERVE AS PERMANENT SEDIMENT CONTROLS.

TEMPORARY STRUCTURAL EROSION & SEDIMENT CONTROLS:
SILT FENCE
PIPE SLOPE DRAIN
STABILIZED CONSTRUCTION ENTRANCE
CONCRETE TRUCK CLEANING AREA
STRAW BALE BARRIER
EQUIPMENT MAINTENANCE
CONSTRUCTION STABILIZATION ROAD
SPILL CONTAINMENT PLAN

PERMANENT STRUCTURAL EROSION & SEDIMENT CONTROLS:
RETENTION BASIN
ASPHALTIC PAVEMENT AT PARKING LOTS AND ROADS
SIDEWALKS
DECOMPOSED GRANITE SURFACING AT LANDSCAPE AREAS

MAINTENANCE & INSPECTION REPORTS

ONCE AN INSPECTION HAS BEEN PERFORMED, A REPORT CONTAINING THE FOLLOWING MUST BE RETAINED WITH THE SWPPP FOR UP TO 3 YEARS AFTER THE SITE HAS BEEN FINALLY STABILIZED.

A) NAMES AND QUALIFICATIONS OF PERSONNEL CONDUCTING THE INSPECTION.
B) DATES OF INSPECTION.
C) OBSERVATIONS RELATING TO IMPLEMENTATION OF THE SWPPP.
D) ACTIONS TAKEN
E) INCIDENTS OF NON-COMPLIANCE.

IF NO INCIDENTS OF NON-COMPLIANCE WERE FOUND, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE SITE IS IN COMPLIANCE WITH THE SWPPP AND THE PERMIT. THE REPORT MUST BE SIGNED IN ACCORDANCE WITH REGULATORY REQUIREMENTS.

EQUIPMENT MAINTENANCE PROCEDURES

1. PROPERLY DISPOSE OF OR RECYCLE USED OILS, HYDRAULIC FLUIDS, AND GEAR LUBRICANTS. DO NOT DUMP FUELS AND LUBRICANTS INTO PITS OR ON THE GROUND. NEVER PLACE USED OIL IN A DUMPSTER OR POUR DOWN A STORM DRAIN.
2. PROPERLY DISPOSE OF OR RECYCLE USED BATTERIES.
3. DO NOT BURY USED TIRES.
4. DO NOT DISPOSE OF EXTRA PAINTS AND COATINGS BY DUMPING LIQUID ONTO THE GROUND OR THROWING IN DUMPSTERS. ALLOW COATINGS TO DRY OR HARDEN BEFORE DISPOSAL INTO COVERED DUMPSTERS.
5. REPAIR LEAKS OF HYDRAULIC FLUIDS, OILS, AND OTHER FLUIDS AS SOON AS POSSIBLE.
6. USE STEAM OR HIGH PRESSURE WATER INSTEAD OF THINNERS AND SOLVENTS TO WASH DOWN HEAVY EQUIPMENT. LOCATE THE WASH DOWN AREA IN A CONTAINED AREA, AND DISPOSE OF WASH WATER AND DETERGENTS TO THE SANITARY SEWER SYSTEM ONLY AFTER GRIT IS REMOVED.
7. PROVIDE SPILL CONTAINMENT DIKES AROUND STORED OIL AND CHEMICAL DRUMS.
8. MAINTAIN WASTE OIL CONTAINERS IN LEAK PROOF CONDITION.
9. CLEAN EQUIPMENT RADIATORS TO MAXIMIZE COOLING EFFICIENCY AND PREVENT BOIL OVER.
10. INSPECT EQUIPMENT FOR DAMAGED HOSES AND LEAKY GASKETS DAILY. REPAIR OR REPLACE AS NEEDED.

SPILL CONTAINMENT PLAN

1. THE CONSTRUCTION SITE MANAGEMENT TEAM SHALL DEVELOP A SPILL PREVENTION PLAN AND ENSURE THAT THE PLAN IS COMMUNICATED TO ALL FIELD PERSONNEL.
2. THE PLAN SHALL IDENTIFY THE TYPES OF HAZARDOUS MATERIALS, WHICH MAY BE USED ON THE PROJECT.
3. DEVELOP A STRATEGY TO STOP LEAKS AT THE SOURCE OF THE SPILL.
4. DEVELOP A STRATEGY TO CONTAIN THE MATERIALS ALREADY SPILLED USING AVAILABLE MATERIALS AND EQUIPMENT.
5. CONTACT THE LOCAL FIRE MARSHALL TO REVIEW ON-SITE STORAGE AREAS TO DETERMINE SPECIFIC REQUIREMENTS AND APPROPRIATE CONTAINMENT TECHNIQUES.
6. COMPLY WITH SUGGESTIONS AND REQUIREMENTS SET BY LOCAL FIRE DEPARTMENT.
7. UPDATE SPILL CONTAINMENT DURING THE COURSE OF CONSTRUCTION AS CHANGES OCCUR IN THE TYPES OF CHEMICALS BEING STORED.
8. IF A SPILL OCCURS FOLLOW PROPER PROCEDURE AS REQUIRED IN THE SPILL CONTAINMENT PLAN.
9. DISPOSE OF MATERIALS PER AGENCY OR MANUFACTURER'S INSTRUCTION.
10. ALL SPILLS REGARDLESS OF SIZE SHOULD BE REPORTED TO THE PROPER AGENCIES.

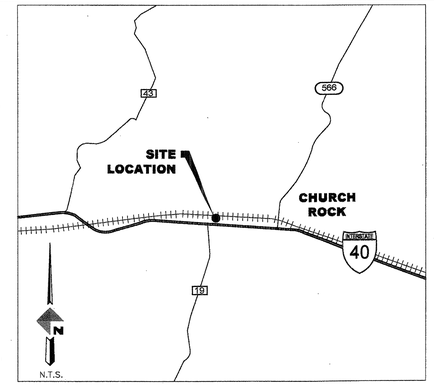
OPERATORS FOR PROJECT SITE

1. CONTRACTOR
   NAME: _____
   TITLE: _____
   PH: _____
   OPERATOR HAS CONTROL OF: _____

2. SUBCONTRACTOR(S)

A) NAME: _____
   TITLE: _____
   PH: _____
   OPERATOR HAS CONTROL OF: _____

B) NAME: _____
   TITLE: _____
   PH: _____
   OPERATOR HAS CONTROL OF: _____



VICINITY MAP

PORTION OF SECTION 15, T15N, R17W, NMPM,
MCKINLEY COUNTY, NEW MEXICO

SHEET INDEX

OWNER / DEVELOPER

NAVAJO NATION GAMING ENTERPRISE
P.O. BOX 1700
CHURCH ROCK, NEW MEXICO 87311

COMPLETION OF BLANK ITEMS AND UPDATING OF INFORMATION

THE PROJECT SUPERINTENDENT SHALL COMPLETE THE BLANK SPACES ON THE SWPPP PRIOR TO SUBMITTING HIS NOTICE OF INTENT. HE SHALL UPDATE THE SWPPP AS NEEDED TO ENSURE COMPLIANCE WITH ALL REGULATIONS GOVERNING CONSTRUCTION ACTIVITIES.

POLLUTION PREVENTION PLAN CERTIFICATION

OWNER'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

_____(SIGNED)

DATE _____

PROJECT MANAGER

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

_____(SIGNED)

DATE _____

CONSTRUCTION MANAGER

SUGGESTED SCHEDULE OF MAJOR CONSTRUCTION ACTIVITIES

MAJOR ACTIVITY	SCHEDULED COMPLETION DATE	REMARKS

THE SCHEDULE OF MAJOR CONSTRUCTION ACTIVITIES SHALL BE COMPLETED BY THE PROJECT SUPERINTENDENT PRIOR TO FILING HIS NOTICE OF INTENT. HE SHALL UPDATE THE SCHEDULE AS NEEDED.

TRAINING

EMPLOYEES AND CONTRACTOR PERSONNEL SHALL BE TRAINED IN THE FOLLOWING AREAS, AT LEAST ONCE PER YEAR:

A) PREVENTIVE MEASURES, INCLUDING SPILL PREVENTION AND RESPONSE, CONSTRUCTION ACTIVITY INSPECTIONS, AND PREVENTIVE MAINTENANCE.
B) POLLUTION CONTROL LAWS AND REGULATIONS.
C) THE CONSTRUCTION ACTIVITY'S SWPPP.
D) FEATURES AND OPERATIONS OF THE CONSTRUCTION ACTIVITY THAT ARE DESIGNED TO MINIMIZE DISCHARGES OF SECTION 313 WATER PRIORITY CHEMICALS, PARTICULARLY SPILL PREVENTION PROCEDURES.

MAINTENANCE & INSPECTION

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF ANY STORM EVENT OF 0.25 INCHES OR GREATER. RAINFALL GAUGE TO BE KEPT ON-SITE TO DETERMINE DEPTH OF RAINFALL.
2. ALL CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF THE INSPECTION REPORT.
3. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILTATION FENCE AND STRAW BALES WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE OR THE BALES.
4. SILTATION FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENTS AND TEARS TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
5. THE DETENTION BASINS AND OUTLET STRUCTURES & PIPES SHALL BE INSPECTED FOR DEPTH OR SEDIMENT. BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY, OR AT THE END OF THE JOB.
6. LANDSCAPING, PLANTING, AND SEEDING SHALL BE INSPECTED FOR BARE SPOTS, WASHOUT, ADEQUACY OF IRRIGATION, AND HEALTHY GROWTH.
7. A MAINTENANCE INSPECTION REPORT SHALL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT SHALL BE KEPT ON FILE WITH THE SITE SUPERINTENDENT, AND WILL BE MADE AVAILABLE TO THE OWNER, COUNTY OFFICIALS, AND THE ARCHITECT & PROJECT ENGINEER.
8. THE SITE SUPERINTENDENT SHALL SELECT TWO INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION & MAINTENANCE REPORT.
9. THE CONTRACTOR SHALL RESTORE ALL DRAINAGE SWALES TO ELEVATIONS SHOWN ON IMPROVEMENT PLANS, PRIOR TO REMOVAL OF TEMPORARY EROSION CONTROLS.

APPROVED
BY:
DATE: 5/6/15

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REVISIONS

REV	DATE	DESCRIPTION	BY

WILLIAM E. GASQUE
NEW MEXICO
18749
4/29/15
PROFESSIONAL ENGINEER

DOWL
www.DOWL.COM
430 W. Warner Road, #8101
Tempe, Arizona 85284
480-753-0800

FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION

CONSTRUCTION DOCUMENTS
STORM WATER MANAGEMENT PLAN COVER SHEET

2249 E. HWY 66
CHURCH ROCK, NM. 87311

PROJECT 3122.41172.01
DATE 04/2015

SHEET
SW-100

PRODUCT SPECIFIC PRACTICES

THE FOLLOWING WILL BE FOLLOWED ON-SITE.

1. PETROLEUM PRODUCTS: ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS THAT ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCE USED ON-SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

2. FERTILIZERS: FERTILIZERS USED SHALL BE APPLIED ONLY IN THE AMOUNTS RECOMMENDED BY THE MANUFACTURER OR LANDSCAPE ARCHITECT. ONCE APPLIED, FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OR ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A PROPERLY LABELED, SEALABLE PLASTIC BIN TO AVOID SPILLS.

3. PAINTS: ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL NOT BE DISCHARGED INTO THE STORM WATER SYSTEM, BUT WILL BE PROPERLY DISPOSED OF ACCORDING THE MANUFACTURER'S INSTRUCTIONS AND LOCAL, STATE, AND FEDERAL REGULATIONS.

4. CONCRETE TRUCKS: CONCRETE TRUCKS SHALL ONLY BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER AT THE APPROVED SITE WASH OUT LOCATION. THE LOCATION SHALL BE THOROUGHLY CLEANED AND RESTORED AT CLOSE OF PROJECT AND EXCESS CONCRETE DISPOSED OF OFF-SITE AT AN APPROVED LOCATION.

5. WASTE MATERIALS: ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER RENTED FROM A LICENSED SOLID WASTE MANAGEMENT COMPANY IN PINAL COUNTY, ARIZONA. THE DUMPSTER SHALL MEET ALL PINAL COUNTY WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPTIED AS NECESSARY AT A MINIMUM OF ONCE BIWEEKLY OR MORE OFTEN IF NECESSARY, AND THE TRASH WILL BE HAULED TO A LICENSED LANDFILL. NO CONSTRUCTION DEBRIS OR WASTE MATERIALS ARE TO BE BURIED ON-SITE. ALL PERSONNEL SHALL BE INSTRUCTED BY THE SITE SUPERINTENDENT REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PROCEDURES SHALL BE POSTED IN THE OFFICE TRAILER AND THE SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

6. HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, COUNTY, STATE AND FEDERAL REGULATIONS, AND BY THE MANUFACTURER. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SITE SUPERINTENDENT, WHO WILL BE RESPONSIBLE FOR SEEING THESE PRACTICES ARE FOLLOWED.

7. SANITARY WASTE: ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED PINAL COUNTY WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY LOCAL REGULATION.

8. OFFSITE VEHICLE TRACKING: A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED ROADWAYS ADJACENT TO THE SITE ENTRANCE SHALL BE SWEPT AS NEEDED TO REMOVE ANY EXCESS MUD, DIRT, OR ROCK TRACKED FROM THE SITE. HAUL TRUCKS AND DUMP TRUCKS REMOVING MATERIAL FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH A TARPAULIN .

SPILL PREVENTION

THE FOLLOWING MATERIAL MANAGEMENT PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

1. GOOD HOUSEKEEPING: THE FOLLOWING HOUSEKEEPING PRACTICES SHALL BE FOLLOWED ON-SITE DURING THE CONSTRUCTION OF THE PROJECT:

A) AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
B) ALL MATERIAL STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER ROOF OR OTHER ENCLOSURE.
C) PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
D) SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
E) WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
F) MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
G) THE SITE SUPERINTENDENT SHALL DAILY INSPECT ON-SITE MATERIAL TO ENSURE PROPER USE, STORAGE, AND DISPOSAL.

2. HAZARDOUS PRODUCTS: THESE PRACTICES SHALL BE FOLLOWED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

A) PRODUCTS SHALL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RE-SEALABLE.
B) ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED. THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
C) IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S LOCAL, STATE, AND FEDERAL RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

SPILL CLEANUP

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED ELSEWHERE IN THE SWPPP PLAN, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP.

1. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED, AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS SHALL INCLUDE, BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGES, GLOVES, GOGGLES, KITTY LITTER, SAND, SAW DUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

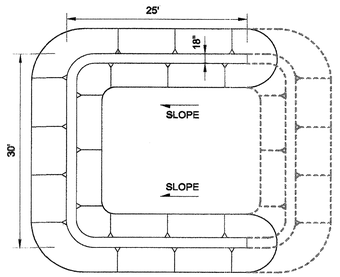
3. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

4. THE SPILL AREA SHALL BE KEPT WELL VENTILATED, AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

5. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.

6. IF A SPILL OCCURS, THE SPILL PREVENTION PLAN SHALL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS PARTICULAR TYPE OF SPILL FROM REOCCURRING, AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES SHALL ALSO BE INCLUDED.

7. THE SITE SUPERINTENDENT SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE A LEAST TWO OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE



COMPACTED EARTH DIKE WITH 2:1 (H:V) SIDE SLOPES

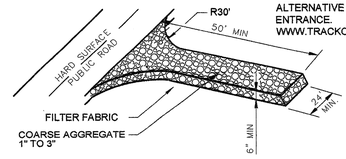
CONCRETE TRUCK CLEANING AREA CONSTRUCTION SPECIFICATIONS :

1. BUILD A THREE SIDED DIKE 12'X12' (SEE SWPPP DWG).
2. BUILD DIKES TO BE 18" HIGHER THAN EXISTING GRADE.
3. DIKE SHOULD SLOPE DOWNWARD TOWARDS THE BACK OF THE WASH AREA SO WATER DOESN'T RUN OUT OF CLEANING AREA.
4. LINE THE PIT WITH PLASTIC SHEETING OF AT LEAST 10-MIL THICKNESS THAT HAS NO SEAMS.
5. MOVE TRUCK WASHOUT AS NECESSARY FOR CONSTRUCTION PHASING.
6. IF THE TRUCK WASH IS LOCATED ON FLAT GROUND, THAN A FOURTH DIKE SHALL BE CONSTRUCTED TO CONTAIN WASHOUT LIQUIDS.

MAINTENANCE:

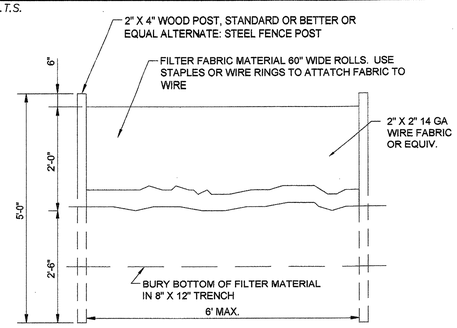
1. INSPECT DIKES WEEKLY, AND AFTER ANY MAJOR STORM TO INSURE THAT THEY ARE INTACT AND WILL NOT ALLOW ANY WATER TO RUN OUT OF CLEANING AREA.
2. THOROUGHLY CLEAN AND RESTORE AT THE CLOSE OF THE PROJECT AND DISPOSE OF EXCESS CONCRETE AT AN OFF-SITE APPROVED LOCATION.

NOTE:
THE CONTRACTOR CAN USE THE "GRIZZLY TRACKOUT CONTROL DEVICE" AS AN ALTERNATIVE CONSTRUCTION ENTRANCE.
WWW.TRACKOUTCONTROL.COM



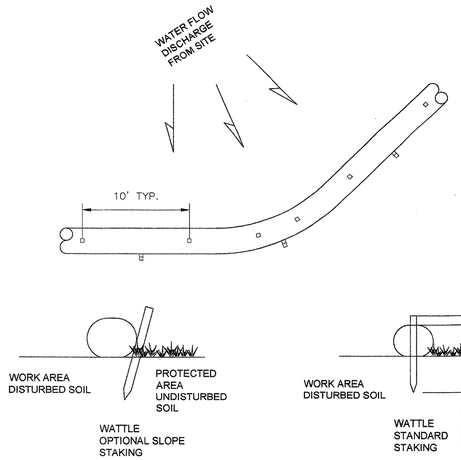
CE STABILIZED CONSTRUCTION ENTRANCE

N.T.S.



TW CONCRETE TRUCK WASH

N.T.S.

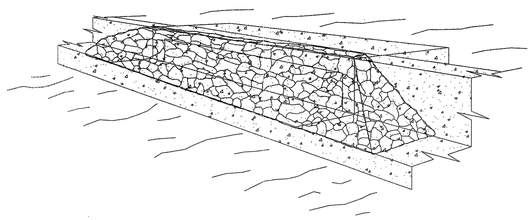


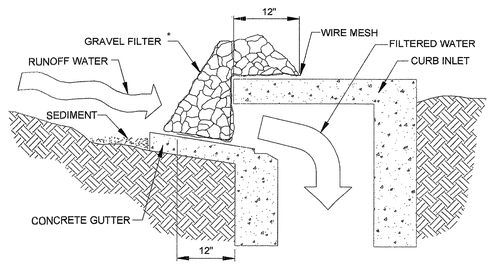
SW SEDIMENT WATTLE

1. SEDIMENT WATTLE SHOULD BE INSPECTED DURING THE NORMAL COURSE OF SWPPP INSPECTION AS OUTLINED IN THE GENERAL CONSTRUCTION PERMIT. INSPECTORS SHOULD NOTE ANY UV DEGRADATION OF THE MESH AND ANY TEARS WHICH WOULD PROVIDE A CHANNEL FOR TO WATER FLOW THROUGH THE MEDIA.
2. THE WATTLE SHOULD BE RELATIVELY UNIFORM IN APPEARANCE WITH EVEN DISTRIBUTION OF THE MEDIA INSIDE THE MESH. EXCESSIVE STRETCHING OR PULLING WHICH REDUCES THE OUTSIDE DIAMETER OF THE WATTLE BY MORE THAN 30% SHOULD NOT BE ALLOWED.
3. STAKING SHOULD BE SPACED SUFFICIENTLY TO KEEP THE SEDIMENT WATTLE IN PLACE WITHOUT SIGNIFICANT MOVEMENT WHEN FLOWS ARE PRESENT.
4. SEDIMENT WATTLES WILL BE PLACED AT LOCATIONS INDICATED ON THE PLANS AS DIRECTED BY THE ENGINEER. THE WATTLES SHOULD BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA, PERPENDICULAR TO THE WATER FLOW. MAY BE USED IN DIRECT FLOW SITUATIONS WITHIN RUNOFF CHANNELS OR WASHES.
5. SEDIMENT WATTLES SHOULD BE REGULARLY INSPECTED TO MAKE SURE THEY HOLD THEIR SHAPE AND ARE PRODUCING ADEQUATE FLOW THROUGH. IF PONDING BECOMES EXCESSIVE, AND SEDIMENT REACHES MORE THAN 50% OF THE HEIGHT OF THE WATTLE; EITHER ADDITIONAL WATTLES SHOULD BE ADDED TO THE TOP OF THE EXISTING WATTLES OR THE SEDIMENT SHOULD BE REMOVED TO THE ORIGINAL GRADE.
6. WHEN CONSTRUCTION IS COMPLETE, THE WATTLE MAY BE CUT OPEN AND THE MEDIA DISPERSED WITH A LOADER, RAKE, SKID STEER OR OTHER DEVICE TO BE INCORPORATED IN THE SOIL OR LEFT ON TOP OF THE SOIL FOR FINAL SEEDING TO OCCUR. IF A MESH WATTLE IS USED, THE NETTING MATERIAL WILL BE COLLECTED AND DISPOSED OF IN NORMAL TRASH CONTAINER OR REMOVED BY THE CONTRACTOR.

PC PERIMETER CONTROL

N.T.S.

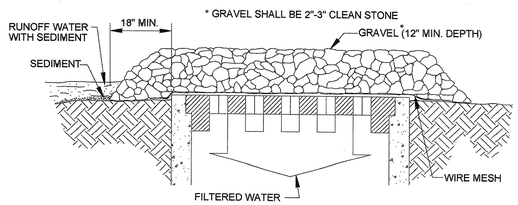




* GRAVEL SHALL BE 2"-3" CLEAN STONE

SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED ACRES.

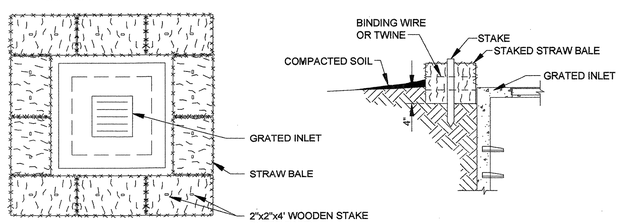
GRAVEL AND WIRE MESH INLET SEDIMENT FILTER

SB IP INLET PROTECTION

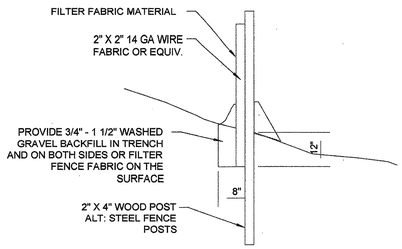
N.T.S.

GENERAL NOTES:

1. BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
2. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH ENDS OF ADJACENT BALES PRESSED TOGETHER.
3. THE BALE SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED AROUND THE INLET THE WIDTH OF A BALE TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
4. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
5. LOOSE STRAW SHALL BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
6. CONSTRUCTION SHALL BE SIMILAR TO IDOT STANDARD 280001, TEMPORARY EROSION CONTROL SYSTEMS



STRAW BALE INLET SEDIMENT FILTER



SILT FENCE

APPROVED
BY:
DATE: 5/6/15

REVISIONS

REV	DATE	DESCRIPTION	BY

WILLIAM E. GASQUE — NEW MEXICO — 18749 — 4/20/15 — REGISTERED PROFESSIONAL ENGINEER

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Tempe, Arizona 85284
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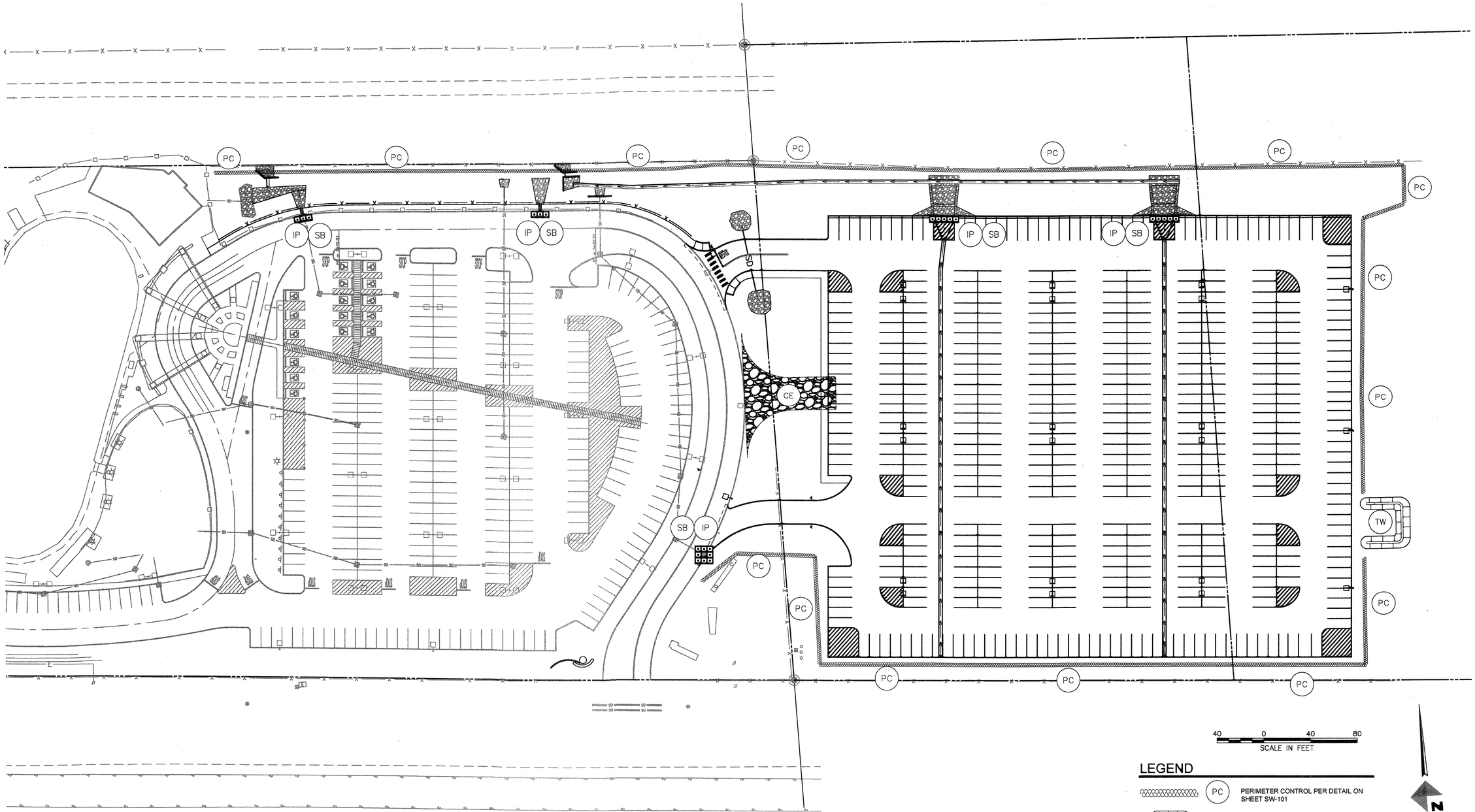
FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION
CONSTRUCTION DOCUMENTS
STORM WATER MANAGEMENT PLAN DETAILS
2249 E. HWY 66
CHURCH ROCK, NM 87311

PROJECT 3122.41172.01
DATE 04/2015

SHEET
SW-101

811 Know what's below. Call before you dig.



NOTE

THE CONTRACTOR SHALL MODIFY THE BMPS AS NECESSARY TO MEET THE INTENT OF THE NPDES REGULATIONS.

LEGEND

- PC — PERIMETER CONTROL PER DETAIL ON SHEET SW-101
- TW — CONCRETE TRUCK WASHOUT PER DETAIL ON SHEET SW-101
- CE — STABILIZED CONSTRUCTION ENTRANCE PER DETAIL ON SHEET SW-101
- SB — STRAW BALE BARRIER PER DETAIL ON SHEET SW-101
- IP — INLET PROTECTION PER DETAIL ON SHEET SW-101

APPROVED
BY:
DATE: 4/29/15

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EAST PARKING LOT ADDITION

CONSTRUCTION DOCUMENTS
STORM WATER MANAGEMENT PLAN

2249 E. HWY 66
CHURCH ROCK, NM. 87311

PROJECT 3122.41172.01
DATE 04/2015

SHEET
SW-102

811 Know what's below. Call before you dig.

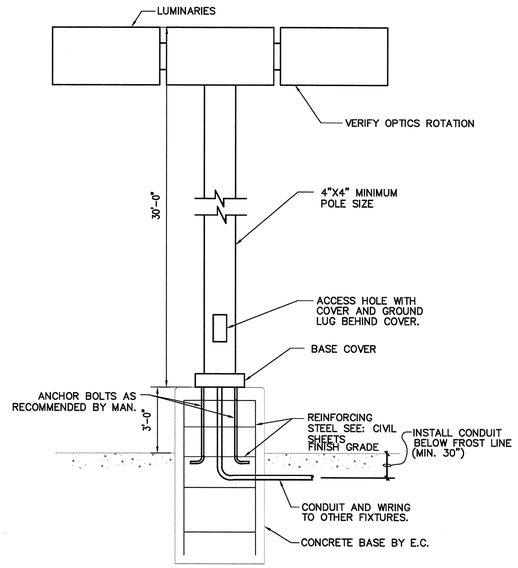
LIGHTING FIXTURE SCHEDULE (XX)

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS	FIXTURE VOLTAGE	FIXTURE WATTS	MOUNTING	NOTES
SA	SPAULDING	CR1-A-P32-H3P-V-F-DB -- 30' SSS POLE	320W PMH	480	349	POLE	1,2
SB	SPAULDING	(2) CR1-A-P32-H3P-V-F-DB -- 30' SSS POLE	(2)320W PMH	480	698	POLE	1,2

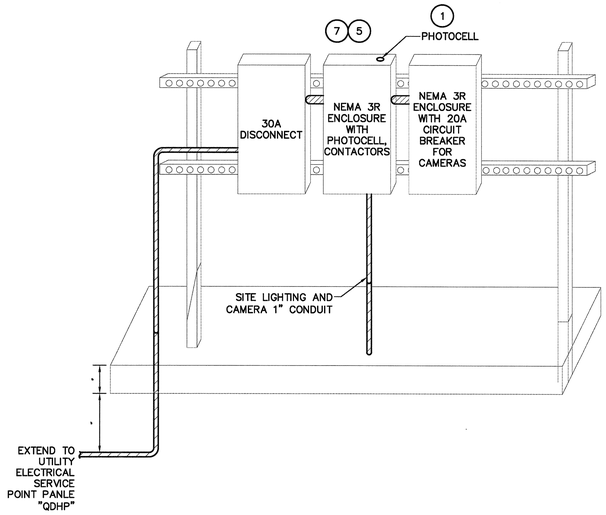
NOTES:
1. COORDINATE WITH ARCHITECT FOR COLOR OF FIXTURE AND POLES.
2. ASSEMBLY SHALL WITHSTAND 100MPH WINDS WITH 125MPH WIND GUST.

NOTES: (X)

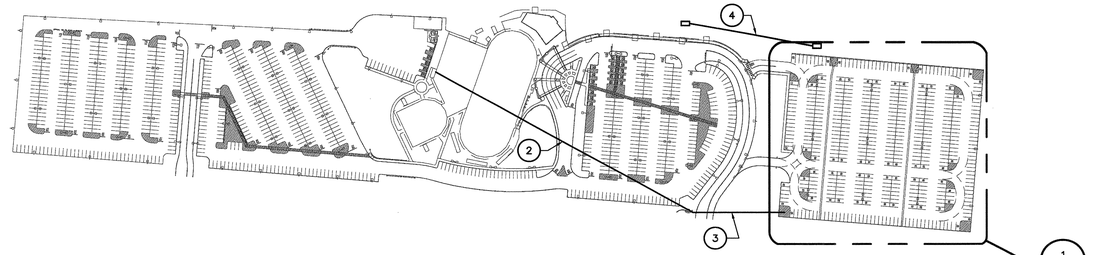
1. PHOTO CELL TO BE LOCATED SO WHEN THE SITE LIGHTING IS TURNED ON IT WILL NOT AFFECT THE LIGHT INPUT TO THE PHOTOCELL.
2. TWO(2) #6 CONDUCTORS AND (1) #6 GROUND TO BE INSTALLED IN AN EXISTING 1-1/2" CONDUIT THAT IS ROUTED FROM PANEL "QDPH" TO THE MONUMENT SIGN. COORDINATE ROUTING WITH THE FACILITIES ELECTRICIAN GARRET HARLAN. VERIFY THERE IS SPARE #6 CONDUCTOR TO BE USED AS A NEUTRAL.
3. (3) #6, (1) #6 GROUND IN 1" CONDUIT.
4. INSTALL 2" CONDUIT FROM EXISTING DATA UNDERGROUND J-BOX TO NEW DATA UNDERGROUND J-BOX. NEW J-BOX TO MATCH EXISTING.
5. REFER TO LIGHT CONTROL WIRING DIAGRAM 2/ES-102 FOR ADDITIONAL INFORMATION.
6. 24V CAMERAS TO BE INSTALLED. COORDINATE WITH BRANDON ASHLEY FOR CAMERA ELECTRICAL REQUIREMENTS.
7. ALL ENCLOSURES TO BE LOCKABLE.



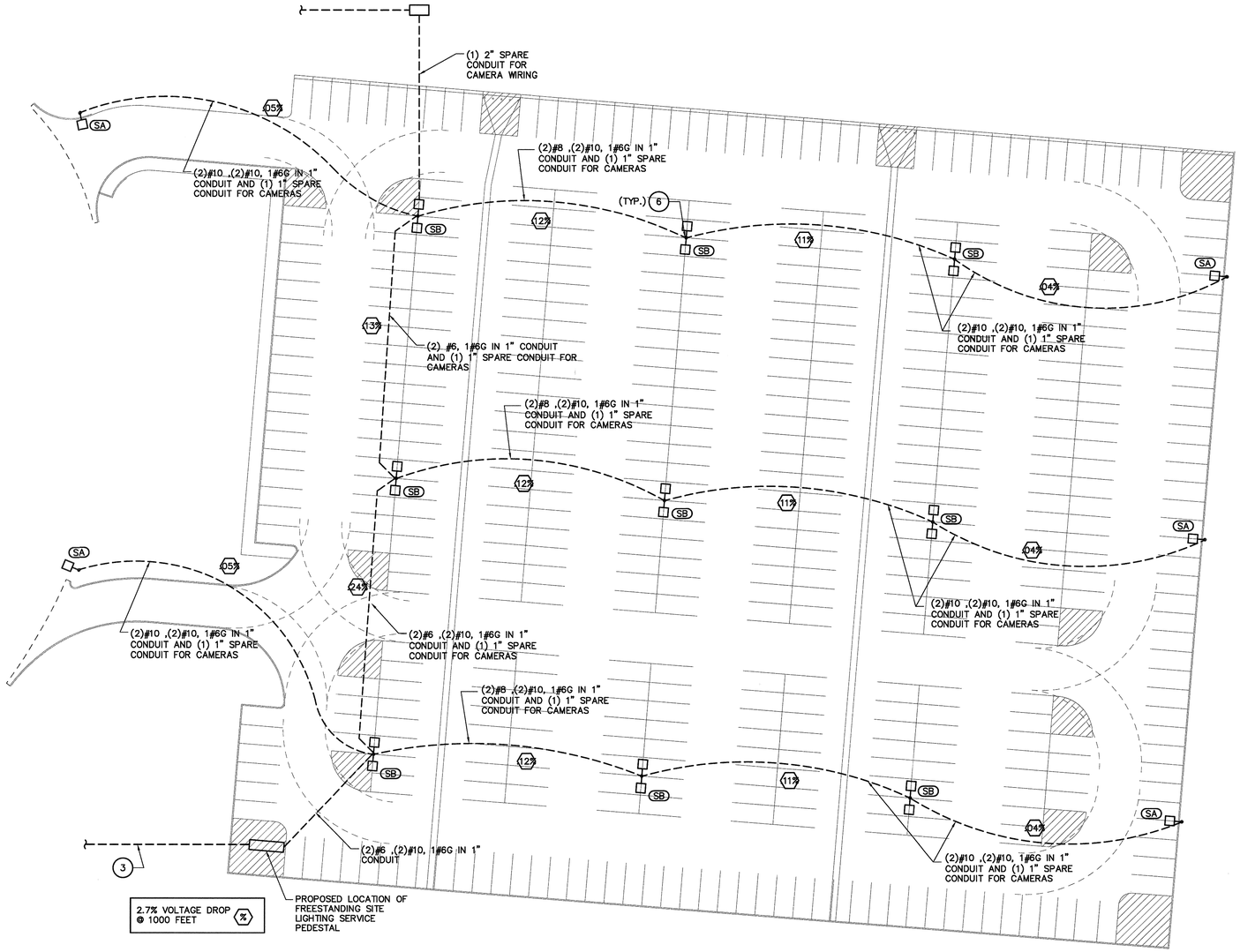
2 POLE DETAIL
SCALE: NONE



3 UNISTRUT MOUNTING DETAIL
SCALE: NONE



D1 SITE KEY PLAN
SCALE: NONE



1 ENLARGED ELECTRICAL SITE PLAN
SCALE: 1" = 30'-0"
0 16' 32'

REVISIONS

REV	DATE	DESCRIPTION	BY

PETER A. HILGER NEW MEXICO 12251 REGISTERED PROFESSIONAL ENGINEER

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FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION
CONSTRUCTION DOCUMENTS
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DATE 04/2015

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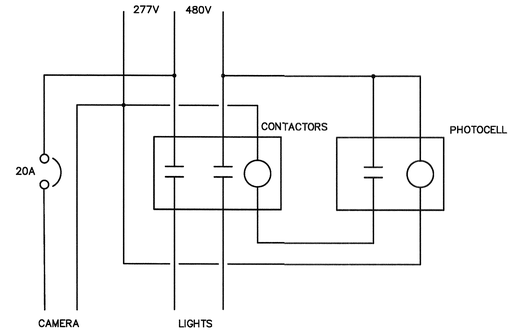
ES-101



2 LIGHTING CONTROL WIRING DIAGRAM

NOT TO SCALE

PANEL 'QDPH'

VOLTAGE: 277/480V, 3PH,4W — 65k AIC RATING
BUS RATING: 1600A — 1/27/2009
MAIN: 1600A MCB — 9:23 AM

(SQUARE D I-LINE TYPE QED2 45 INCHES OF MOUNTING SPACE)

LOAD (VOLT AMPS)					CKT	LOAD SERVED	CB AMP/P	PHASE A	PHASE B	PHASE C	CB AMP/P	LOAD SERVED	CKT	LOAD (VOLT AMPS)				
LTG	REC	MOTOR	HEAT	KITCH										LTG	REC	MOTOR	HEAT	KITCH
		42123			1	RTU-1	200/3	*	-	-								
		42123				-	-	-	*	-								
		42123				-	-	-	-	*								
		42123			2	RTU-2	200/3	*	-	-								
		42123				-	-	-	*	-								
		42123				-	-	-	-	*								
		42123			3	RTU-3	200/3	*	-	-								
		42123				-	-	-	*	-								
		42123				-	-	-	-	*								
		33533			4	RTU-4A	200/3	*	-	-								
		33533				-	-	-	*	-								
		33533				-	-	-	-	*								
		33533			5	RTU-4B	200/3	*	-	-								
		33533				-	-	-	*	-								
		33533				-	-	-	-	*								
		33810			6	RTU-6	200/3	*	-	-								
		33810				-	-	-	*	-								
		33810				-	-	-	-	*								
		22170			7	RTU-8	100/3	*	-	-								
		22170				-	-	-	*	-								
		22170				-	-	-	-	*								
0	0	28797	0		8	PANEL 'Q2HA'	250/3	*	-	-								
0	0	28797	0			-	-	-	*	-								
0	0	28017	0			-	-	-	-	*								
300	3615	18345	10000	77896	9	PANEL 'QDPL'	400/3	*	-	-								
500	3130	17556	15000	78260		-	-	-	*	-								
0	1625	17116	10000	83599		-	-	-	-	*								
					10	SPACE	250/3	*	-	-								
						-	-	-	*	-								
						-	-	-	-	*								
800	8370	886873	35000	239755	FEEDER SIZE: SEE ONE LINE DIAGRAM									0	0	0	0	0
SUB TOTALS														SUB TOTALS				

FED FROM:
ATS 'ATSQDPH'

MOUNTING:
SURFACE

LOCATION:
MAIN ELECTRIC ROOM

FOOTNOTES:
(1) = SHUNT TRIP CB
(2) = GROUND FAULT CB
(3) = DEMAND FACTOR FROM NEC 70, ARTICLE 220

mark with an X as appropriate:

____ ISOLATION GROUND BUS
____ 200 % NEUTRAL
____ FEED-THRU LUGS
____ SHUNT TRIP MAIN CB
____ OUTDOOR ENCLOSURE
____ STAINLESS STEEL COVER

PHASE LOADING

LTG	REC	MOTOR	HEAT	KITCH	
300	3615	296557	10000	77896	PHASE A
500	3130	295788	15000	78260	PHASE B
0	1625	294548	10000	83599	PHASE C
		A	B	C	
		388368	392658	389772	TOTALS

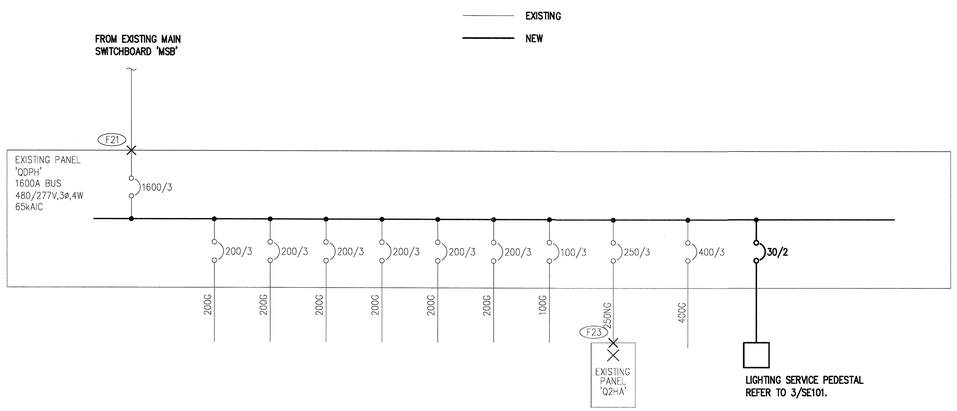
PANEL TOTALS

	LTG	REC	MOTOR	HEAT	KITCH
	800	8370	886873	35000	239755
CONNECTED KVA TOTALS	0.80	8.37	886.87	35.00	239.76
DEMAND FACTOR	1.25	(3)	1.00	1.00	0.65
ADJUSTED KVA TOTALS	1.00	8.37	886.87	35.00	155.84
TOTAL CONNECTED KVA	1170.80				
TOTAL ADJUSTED KVA	1087.08				
THREE PHASE VOLTAGE	480				
TOTAL PANEL ADJUSTED AMPERAGE	1308				

Project Name: Fire Rock Casino
Project Number: 2008095.00

LOAD ANALYSIS

1087.08 KVA (TOTAL ADJUSTED KVA FOR PANEL "QDPH" (303 A)	1087.08 KVA 1302 A
ADDITIONAL CONNECTED LOAD	20.76 KVA 25 A
TOTAL	1107.84 KVA 1327 A
PANEL RATING (1600AMPS) 1600A x 480V x 1.73 = 1336.32 KVA	1336.32 KVA



1 ONE-LINE DIAGRAM

NOT TO SCALE

REVISIONS

REV	DATE	DESCRIPTION	BY

PETER A. HILGER — NEW MEXICO — REGISTERED PROFESSIONAL ENGINEER

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FIRE ROCK NAVAJO CASINO
EAST PARKING LOT ADDITION
CONSTRUCTION DOCUMENTS

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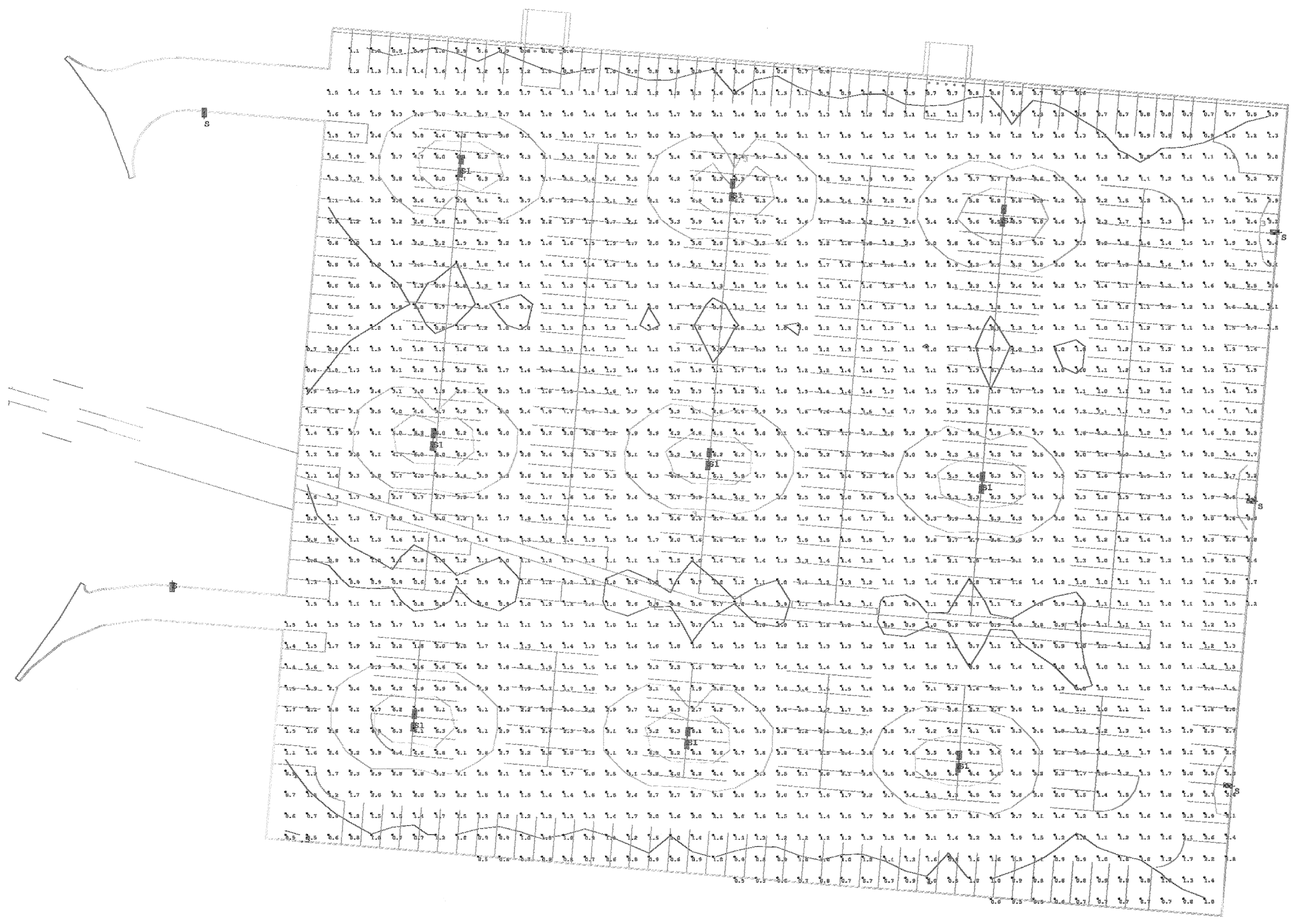
PROJECT 3122.41172.01
DATE 04/2015

SHEET

ES-102

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Lumens	LLF	Description
	5	S	SINGLE	30000	0.810	SPAULDING # CR1-A-P32-H3P-Q-F-DB -- 30' SSS POLE
	9	S1	BACK-BACK	30000	0.810	SPAULDING # (2)CR1-A-P32-H3P-Q-F-DB -- 30' SSS POLE

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING LOT	Illuminance	Fc	2.03	6.5	0.5	4.06	13.00



A1 ENLARGED SITE PHOTOMETRICS PLAN
SCALE: NTS

FOR INFORMATION ONLY

REVISIONS

REV	DATE	DESCRIPTION	BY

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FIRE ROCK NAVAJO CASINO
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PROJECT 3122.41172.01
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SHEET

ES-103